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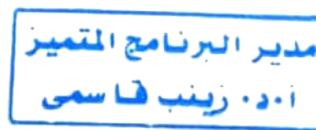
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M.B.B.CH. PROGRAM CREDIT  
POINTS (5 + 2) Module  
SPECIFICATION Level I

**The  
Private  
Program**

# LEVEL I

عميد الكلية	مدير وحدة ضمان الجودة	منسق	لجنة المعايير الأكاديمية
أ.د/ محمد فهمي النعماني	أ.د/ أميرة فتحى عبد العاطى	أ.د زينب عبدالعزيز قاسمي	و التوصيف بالبرنامج
			د. أحمد حمدان



# Semester I

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أ.د. زينب قاسمي





# Foundation I

**University:** Menoufia

**Faculty:** Medicine

## A - Administrative Information

**Module Title:** Foundation I

**Code :** MED 101

**Department offering the Module:** Anatomy, histology, physiology and biochemistry departments

**Program on which the Module is given:** Menoufia M.B.B.Ch Credit-points Program (5+2)

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

**Semester:** I

**Date of specification:** 2023

**Date of approval by faculty council:** 2023

**Credit/taught hours:**

**Credit points:** 12 points

Teaching hours			
	Lectures	Practical	Activities
A- Anatomy department	30 hours	30 hours	12 hours
B- Histology department	15 hours	15 hours	6 hours
C- Physiology department	15 hours	15 hours	6 hours
D- Biochemistry department	30 hours	30 hours	12 hours
Total	90 hours	90 hours	36 hours
This is the Distribution of 60% of the module equivalent contact hours according to the decision of the University Council"			

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## B- Professional Information

### I- Aim of the Module:

To provide the students with basic knowledge and skills regarding general anatomical structure and embryological development of the human body, cytology and histological structure of basic human tissues with functional and clinical correlation whenever possible. The module provides the students with basic knowledge regarding the physiology of the human body including cell homeostasis, body fluids and homeostasis, and autonomic nervous system, and biochemistry of carbohydrates, proteins, lipids and enzymes.. molecular biology & genetics

### II- Learning Outcomes of the Module:

#### Competency Area 3: The graduate as a professional.

Key competency	Module LOs
<b>3.1</b> Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.	3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members 3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments

#### Competency Area 4: The graduate as a scholar and scientist.

Key competency	Module LOs
<b>4.1</b> Describe the normal structure of the body and its major organ systems and explain their functions.	4.1.1. Identify the normal structure of the skeletal, joint and body cavities. 4.1.2. Describe the basic anatomical structure of body bones 4.1.3. Demonstrate the surface landmarks of the underlying bones, muscles, joints and tendons. 4.1.4. Define the structure and functions of the cytoplasmic components.

- 4.1.5. Explain the process of cell division and identify the activities that control the transition from each phase of the cell cycle to the other.
- 4.1.6. Clarify the structural characteristics of the two basic tissue types (epithelium and Connective tissue).
- 4.1.7. Describe the functional capabilities of each tissue type and relate them to the structure.
- 4.1.8. Integrate basic anatomical and histological data.
- 4.1.9. Correlate the structure with the function of different cells in tissues and organs.
- 4.1.10. Construct structures that could be present in a cell from its function
- 4.1.11. Relate the composition of each tissue type to its specific functions.
- 4.1.12. Describe the function of the cell membrane and that of every organelle of the cytoplasm including mitochondria, endoplasmic reticulum, Golgi tendon organ, lysosomes, ribosomes, centriole and tubular system.
- 4.1.13. Recognize the different fluid compartments of the body and the composition of the body fluid in each of them.
- 4.1.14. Identify the mechanisms of transport of different substances across the cell membrane.
- 4.1.15. Identify the term homeostasis and the negative and positive feedback mechanisms, and to recall the examples of homeostasis in the different human body systems.
- 4.1.16. Work effectively in a group in lab or during preparation of seminars.
- 4.1.17. Use computer and internet to extract information and knowledge
- 4.1.18. Identify the nucleic acid structure and function.
- 4.1.19. Describes how the information is transferred from DNA (deoxyribonucleic acid) during cell division (by replication & transcription) and protein synthesis (translation).
- 4.1.20. Explain mechanisms of DNA repair and different types of gene mutation.
- 4.1.21. Identify the genetic code and its different characteristics
- 4.1.22. Describe the recombinant DNA technology and



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methods for DNA studying for diagnosis of genetic diseases.

4.1.23. Describe the methods of gene amplification both in vivo (cloning) and in vitro (PCR)

4.1.24. Identify the molecular bases of some inherited and genetic diseases.

4.1.25. Define expressions of concentration, surface tension, viscosity, osmotic pressure and different types of solutions

4.1.26. Define PH, buffers, acidosis and alkalosis

4.1.27. Interpret symptoms, signs, etiology and biochemical laboratory findings of acid base disorders.

4.1.28. Identify laboratory instruments such as PH meter

4.1.29. Name the components of an autonomic reflex and compare the structural and functional differences between the somatic and autonomic nervous systems.

4.1.30. Classify the autonomic N.S and compare the structural differences between sympathetic and parasympathetic nervous system and identify the types of autonomic ganglia.

4.1.31. Summarize the functions of sympathetic and parasympathetic nervous system on different parts of the body.

4.1.32. Recognize the chemical neurotransmitters of autonomic nervous system and distinguish the distribution of adrenergic and cholinergic receptors all over the body

**4.2** Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.

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4.2.1 Describe the types, structure, functions and isomerism of carbohydrates and the importance of sugars and sugar derivatives.

4.2.2 Recognize the types, structure and functions of lipids and the importance of the compound and derived lipids.

4.2.3 Describe different amino acids and protein structures, classifications and properties as well as the structure and functions of hemoglobin.

4.2.4 Define the nature of enzymes, mechanisms of action, isoenzymes, different classes of enzymes and their role in the diagnosis of diseases.

4.2.5 Communicate ideas and arguments effectively.

4.2.6 Manage time and resources effectively and set priorities.

**4.3** Recognize and describe main developmental changes in humans and the effect of growth, development and aging on the individual and his family.

4.3.1 Identify the changes in human development from fertilization, 1st week, 2nd week, 3rd week changes.

4.3.2 Mention the subunits of each nuclear component and their role in its function.

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

4.3.4 Use internet and learn searching skills.

4.3.5 Apply the principles of continuous medical education; CME.

**4.5** Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).

4.5.1 Explain the basis of cytogenetics and chromosomal aberrations.

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

4.5.3 Interpret cellular changes when present in different

**4.6** Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.

**4.6.1** Predict the intracellular or tissue components likely to be involved in a functional deficit.

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

4.6.3 Interpret biochemical laboratory findings of carbohydrates, lipids and proteins.

4.6.4 Link the biochemical laboratory findings to clinical disease processes

**4.6.5** Expect the outcome of disturbed function.

**4.6.6** Solve problems through case study

- 4.8** Demonstrate basic sciences specific practical skills and procedures relevant to future practice, recognizing their scientific basis, and interpret common diagnostic modalities, including: imaging, electrocardiograms, laboratory assays, pathologic studies, and functional assessment tests.
- 4.8.1 Describe the basic steps in preparing specimens for light and electron microscopy.
- 4.8.2 Apply the anatomical facts while examining the living subject in order to reach a proper diagnosis.
- 4.8.3 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).
- 4.8.4 Interpret the electron microscopic appearance of different cellular and intracellular components in electron photomicrographs
- 4.8.5 Interpret the light microscopic appearance of normal cells, tissues and organs.
- 4.8.6 Conclude the normal structure of any given histological slide.
- 4.8.7 Practice basic practical skills and competencies essential for future medical practice.
- 4.8.8 Identify dissected structures of the upper limb, thorax, abdomen, pelvis and perineum according to the present relations.
- 4.8.9 Distinguish consistency of arteries, veins and nerves.
- 4.8.10 Read x- rays and draw diagrams showing different structures, organs and their relations.
- 4.8.11 Identify the mechanical and the optical components of light microscope.
- 4.8.12 Identify the equipment used in the paraffin micro technique.
- 4.8.13 Examine haematoxylin and eosin-stained slides under the microscope.
- 4.8.14 Adjust the slide at the high power (1000) in light microscope.
- 4.8.15 Distinguish between the ordinary haematoxylin and eosin-stained section and others with special stains
- 4.8.16 Analyze subject's given data.
- 4.8.17 Diagnose, provisionally, alterations in physiological parameters.
- 4.8.18 Differentiate between different cases of fluid volume expansion and contraction.
- 4.8.19 Present clearly and effectively a scientific topic in the practical class, a staff meeting or the yearly scientific day.
- 4.8.20 Perform simple blood tests, interpret them, and estimate plasma and body fluids volumes.
- 4.8.21 Apply Fick's principle in different dye-based dilution techniques.



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- 4.8.22 Plot data charts to clarify different physiological or pathophysiological states.
- 4.8.23 Deal with laboratory reagents and instruments used in biochemistry laboratory.
- 4.8.24 Identify the physical and chemical properties of carbohydrates and proteins
- 4.8.25 Perform chemical reactions to identify different types of carbohydrates and active groups of proteins.
- 4.8.26 Demonstrate respect to the role of staff and co-staff members regardless of degree or occupation.
- 4.8.27 Communicate effectively and respectfully with staff members.

**Competency Area 5: The graduate as a member of the health team and part of the health care system.**

Key competency	Module LOs
5.2 Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management.	<ul style="list-style-type: none"> <li>5.2.1 Demonstrate respect towards colleagues.</li> <li>5.2.2 Apply teamwork in educational and professional encounters</li> </ul>

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## Competency Area 6: The graduate as a lifelong learner and researcher.

Key competency	Module LOs
<b>6.2</b> Develop, implement, monitor, and revise a personal learning plan to enhance professional practice.	6.2.1 Formulate a learning plan for the module in focus. 6.2.2 Apply the learning plan respecting emerging priorities and encounters
<b>6.3</b> Identify opportunities and use various resources for learning.	6.3.1 Use information resources whether written or electronic efficiently for the educational process.
<b>6.6</b> Effectively manage learning time and resources and set priorities.	6.6.1 Manage time and learning resources effectively. 6.6.2 Apply priority setting in the learning process

### III. Module Contents:

Theoretical		
Topic	Teaching Hours	Department
Subdivisions of anatomy, anatomical position, planes, terms of position	1.5	Anatomy
Terms of movement, regional terms, body cavities and serous sacs.	1.5	Anatomy
Integumentary system- Muscular system	1.5	Anatomy
Gametogenesis.	1.5	Anatomy
Female reproductive cycles 1	1.5	Anatomy
Female reproductive cycles 2	1.5	Anatomy
Skeletal system (cartilage - bone classification).	1.5	Anatomy
Skeletal system (bone structure – Solid joints)	1.5	Anatomy
First-week developmental changes.	1.5	Anatomy
Skeletal system (Synovial joints).	1.5	Anatomy
Second-week developmental change 1.	1.5	Anatomy
Second-week developmental change 2.	1.5	Anatomy
Anatomy of the blood vessels	1.5	Anatomy
Third-week developmental changes	1.5	Anatomy
Lymphatic & endocrine systems	1.5	Anatomy
Fourth-week developmental changes	1.5	Anatomy
Somatic nervous system	1.5	Anatomy
Fetal membranes 1	1.5	Anatomy
Fetal membranes 2	1.5	Anatomy
Autonomic nervous system	1.5	Anatomy
Introduction and Microtechniques, Membranous organelles part I.	1.5	Histology

Membranous organelles part II.	1.5	Histology
Nonmembranous organelles	1.5	Histology
Cell inclusions, Nucleus and nucleolus	1.5	Histology
Cytogenetics Part I	1.5	Histology
Cytogenetics Part II	1.5	Histology
Epithelium part I	1.5	Histology
Epithelium part II	1.5	Histology
Connective tissue part I	1.5	Histology
Connective tissue part II	1.5	Histology
PH meter and how to measure PH	1.5	Biochemistry
Monosaccharides	1.5	Biochemistry
Physical properties of monosaccharides	1.5	Biochemistry
Derivatives and Disaccharides	1.5	Biochemistry
Polysaccharides	1.5	Biochemistry
Classification of lipid. Simple lipid	1.5	Biochemistry
Compound lipids	1.5	Biochemistry
Derived lipid, interactions of lipid with aqua phase	1.5	Biochemistry
Introduction and chemistry of amino acids	1.5	Biochemistry
Shape of protein and levels of protein structures	1.5	Biochemistry
Classification of proteins	1.5	Biochemistry
Solubility and denaturation of proteins and revision	1.5	Biochemistry
Enzyme classification	1.5	Biochemistry
Enzyme regulation	1.5	Biochemistry
Nucleotide chemistry -chemistry of DNA	1.5	Biochemistry
Chemistry of RNA- DNA organization	1.5	Biochemistry
DNA synthesis (replication)	1.5	Biochemistry
DNA repair- Transcription	1.5	Biochemistry
Posttranscriptional modifications	1.5	Biochemistry
Genetic code- Mutation	1.5	Biochemistry
Basic concepts of general Physiology	1.5	Physiology
Transport across the cell membrane	1.5	Physiology
General divisions of the autonomic nervous system	1.5	Physiology
Autonomic ganglia	1.5	Physiology
Functions of the sympathetic nervous system.	1.5	Physiology
Function of the parasympathetic nervous system	1.5	Physiology
Chemical transmitters of the autonomic nervous system and	1.5	Physiology
Autonomic receptors	1.5	Physiology
Homeostasis	1.5	Physiology
Revision	1.5	Physiology
<b>Total</b>	<b>60</b>	
<b>Practical</b>		
<b>Practical</b>	<b>Teaching Hours</b>	<b>Department</b>
Organization of the body systems, regional terms, parts of the abdomen, body cavities, and serous sacs.	1.5	Anatomy

<b>Terms of movement</b>	1.5	Anatomy
<b>Skin, fascia, muscle.</b>	1.5	Anatomy
<b>Bony skeleton, classification of bones according to site &amp; shape, parts of long bone.</b>	1.5	Anatomy
<b>Clavicle, scapula</b>	1.5	Anatomy
<b>Humerus, Radius.</b>	1.5	Anatomy
<b>Ulna, Hand</b>	1.5	Anatomy
<b>Revision of upper limb bones &amp; radiology</b>	1.5	Anatomy
<b>Hip bone.</b>	1.5	Anatomy
<b>Femur, Tibia</b>	1.5	Anatomy
<b>Fibula, foot</b>	1.5	Anatomy
<b>Revision of lower limb bones &amp; radiology</b>	1.5	Anatomy
<b>Lymphatic, endocrine systems</b>	1.5	Anatomy
<b>Revision</b>	1.5	Anatomy
<b>1<sup>st</sup> week changes</b>	1.5	Anatomy
<b>2nd-week changes</b>	1.5	Anatomy
<b>3<sup>RD</sup> WEEK CHANGES</b>	1.5	Anatomy
<b>4<sup>th</sup> week changes</b>	1.5	Anatomy
<b>Fetal membranes</b>	1.5	Anatomy
<b>Revision</b>	1.5	Anatomy
<b>Microtechniques &amp; staining</b>	1.5	Histology
<b>Membranous organelles Part I</b>	1.5	Histology
<b>Non membranous organelles</b>	1.5	Histology
<b>Non membranous organelles</b>	1.5	Histology
<b>Inclusion, Nucleus &amp; nucleolus</b>	1.5	Histology
<b>Cell division</b>	1.5	Histology
<b>Epithelium part I</b>	1.5	Histology
<b>Epithelium part II</b>	1.5	Histology
<b>Connective tissue</b>	1.5	Histology
<b>REVISION</b>	1.5	Histology
<b>PH meter and how to measure PH 1</b>	1.5	Biochemistry
<b>PH meter and how to measure PH 2</b>	1.5	Biochemistry
<b>ABG</b>	1.5	Biochemistry
<b>ABG interpretation</b>	1.5	Biochemistry
<b>carbohydrate scheme (Lab precautions, molish test, iodine test)</b>	1.5	Biochemistry
<b>carbohydrate scheme (fehling, bendict and barfoed tests)</b>	1.5	Biochemistry

<b>carbohydrate scheme (ketose and selivanoff tests)</b>	1.5	Biochemistry
<b>protein scheme (Biuret test)</b>	1.5	Biochemistry
<b>protein scheme (heat coagulation, heller and acidification tests)</b>	1.5	Biochemistry
<b>Revision on carbohydrate and protein scheme</b>	1.5	Biochemistry
<b>Revision on Carbohydrate and protein scheme</b>	1.5	Biochemistry
<b>Practical exam</b>	1.5	Biochemistry
<b>Practical exam</b>	1.5	Biochemistry
<b>Enzyme curves</b>	1.5	Biochemistry
<b>DNA extraction 1</b>	1.5	Biochemistry
<b>DNA extraction 2</b>	1.5	Biochemistry
<b>PCR</b>	1.5	Biochemistry
<b>Cloning</b>	1.5	Biochemistry
<b>Gel electrophoresis</b>	1.5	Biochemistry
<b>Revision</b>	1.5	Biochemistry
<b>Estimation of plasma volume</b>	1.5	Physiology
<b>Determination of Hematocrit value</b>	1.5	Physiology
<b>Homeostasis</b>	1.5	Physiology
<b>Osmosis</b>	1.5	Physiology
<b>Osmotic fragility.</b>	1.5	Physiology
<b>Revision</b>	1.5	Physiology
<b>Autonomic nervous system</b>	1.5	Physiology
<b>Disorders of the autonomic nervous system</b>	1.5	Physiology
<b>REVISION</b>	1.5	Physiology
<b>REVISION</b>	1.5	Physiology
<b>Total</b>	<b>60</b>	

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## IV– Teaching and learning Methods:

### 1. Theoretical Teaching:

#### a) Interactive lectures: using

- Brain storming
- Audiovisual aids through animations and diagrams
- Interaction with the students through questions
- Student engagement with discussion

#### a) Case Based learning

### 2. Practical Teaching: conducted using:

- Practical sessions

### 2. Self-directed Learning

## V- 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. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes a multiple choice questions, problems-solving exercises and independent learning activities in all subjects. These will be given during tutorial and practical sessions. The Answers are presented and discussed immediately with you after the assessment. The results will be made available to the students.
- **Summative** This type of assessment is used for judgment or decisions to be made about the Students performance. It serves as:
  1. Verification of achievement for the student satisfying requirement
  2. Motivation of the student to maintain or improve performance
  3. Certification of performance
  4. Grades

### C- Summative Assessment methods:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		10% Participation in the tutorials, TBL, Research.	During the module
Final practical exam	30%	OSPE /OSCE Exam	At the end of the module

<b>Final Written</b>	40%	It Includes problem-solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the semester
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#### D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
<b>Final Written exam.</b>	<b>72</b>	<b>40%</b>
<b>Final Practical exam.</b>	<b>54</b>	<b>30%</b>
<b>Activities</b>	<b>54</b>	<b>30%</b>
<b>Total</b>	<b>180</b>	<b>100%</b>

#### E- Grading:

The Percentage	Symbol	Grade
<b>&gt; 85%</b>	<b>A</b>	<b>Excellent.</b>
<b>75-&lt;85 %</b>	<b>B</b>	<b>Very Good</b>
<b>65 - &lt; 75 %</b>	<b>C</b>	<b>Good.</b>
<b>60 - &lt; 65 %</b>	<b>D</b>	<b>Passed.</b>
<b>&lt; 60 %</b>	<b>F</b>	<b>Failed.</b>
	<b>W</b>	<b>Withdrawn</b>

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## **VI. List of references and resources:**

- **Lecture Notes of Module Departments**
- **References:**

### **Anatomy:**

- Gray's Anatomy for Students. 4<sup>th</sup> Edition. By: [Richard Drake](#), [A. Wayne Vogl](#), [Adam W. M. Mitchell](#). Churchill Livingstone; 2020
- Langman's Medical Embryology, 14th Edition. By: T.W. Sadler. Williams and Wilkins; 2018
- Grant's Atlas of Anatomy: International Edition by Arthur F. Dalley Anne M.R. Agur. LWW; 2020.
- Netter Atlas of Human Anatomy: Classic Regional Approach. 8th Edition by Frank H. Netter. Elsevier ;2022

### **Physiology:**

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 14th Edition. By: John E. Hall and Michael E. Hall. Elsevier 2021.
- Ganong's Review of Medical Physiology 26th Edition. By: Jason Yuan, Kim E. Barrett, Susan M. Barman, Heddwen L. Brooks. McGraw-Hill Medical; 2019.
- Physiology (Lippincott's Illustrated Reviews Series) 2nd Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2019.

### **Histology:**

- Junqueira's Basic Histology: Text and Atlas, 16th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2021.
- Wheater's Functional Histology, 7th Edition by Geraldine O'Dowd, Sarah Bell. Elsevier ;2023
- diFiore's Atlas of Histology with Functional Correlations, 13th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2017.

### **Biochemistry:**

- Harper's Illustrated Biochemistry 32nd Edition. By Peter J. Kennelly, Kathleen M. Botham, Owen McGuinness, Victor W. Rodwell, P. Anthony Weil. McGraw Hill / Medical, 2022.
- Lippincott's Illustrated Reviews Biochemistry, 8TH Edition. By Emine E. Abali, Susan D. Cline, David S. Franklin, Dr. Susan M. Viselli. LWW, 2021.
- Textbook of Biochemistry with Clinical Correlations 7th Edition. By: Thomas M. Devlin. John Wiley & Sons, 2010.

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

- 1-Faculty Lecture halls
- 2-Three equipped labs with microscopes & slides.
- 3-Museum for gross examination.
- 4-Faculty library for textbooks & electronic library for web search.
- 5-Audiovisual aids as boards, data show and computers.

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Mansoura Faculty of Medicine



وحدة  
ضمان  
الجودة

## Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.32	x	x		x	x		x		x	x	x
4.2	4.2.1 to 4.2.6	x	x		x	x		x		x	x	x
4.3	4.3.1 to 4.3.5	x	x		x	x		x		x	x	x
4.5	4.5.1 to 4.5.3	x	x		x	x		x		x	x	x
4.6	4.6.1 to 4.6.6	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.27			x			x		x	x		x
5.2	5.2.1, 5.2.2	x	x	x						x		x
6.2	6.2.1, 6.2.2				x	x	x	x	x	x	x	x
6.3	6.3.1				x	x	x	x	x	x	x	x
6.6	6.6.1, 6.6.2				x	x	x	x	x	x	x	x

**Module Coordinator:** Dr. Noha Abdelaziz

**Program Coordinator:** Prof. Dr. Zeinab Kasemy

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## Foundation 2

**University:** Menoufia

**Faculty:** Medicine

### A - Administrative Information

**Module Title:** Foundation 2

**Code No:** MED 102

**Department offering the Module:** Microbiology, Pharmacology, Parasitology and Pathology and departments

**Programme(s) on which the Module is given:** Menoufia M.B.B.ChCredit- points Program (5+2)

**Academic year:** First year

**Semester:** I

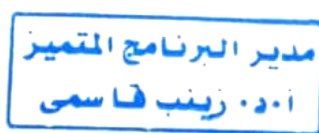
**Date of specification:** 2023

**Date of approval by departments council:** 2023

**Date of approval by faculty council:** 2023

**Total credit points:** 10.5

	Teaching hours		
	Lectures	Practical	Activities
Pathology	15.75 h.	15.75 h.	6.3 h.
Pharmacology	19.5 h.	19.5 h.	7.8 h.
Microbiology	25.5 h.	25.5 h.	10.2 h.
Parasitology	18 h.	18 h.	7.2 h.
<b>Total</b>	<b>78.75 h.</b>	<b>78.75 h.</b>	<b>31.5 h</b>
This is the Distribution of 60% of the module equivalent contact hours according to the decision of the University Council"			



### B-Professional information

#### I- Aim of the of Module:

To provide the students with the principles of general pathology including the etiopathogenesis, gross and microscopic changes of certain diseases, and the basics of general pharmacology including pharmacokinetics and pharmacodynamics of drugs with emphasis on drugs acting on the autonomic



nervous system, and an introduction to chemotherapy. This module provides the students with the basic knowledge and skills in microbiology, and parasitology including classifications, differentiation, and management of different micro-organisms, and the classification of parasites and how to differentiate between them, demonstrating the role of vectors and snails in the life cycle of the parasites.

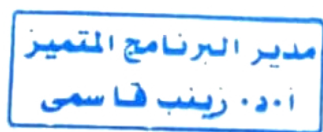
## **II- Learning Outcomes of the Module (ILOs)**

### **Competency Area 3: The graduate as a professional.**

Key competency	Module LOs
<b>3.1</b> Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.3.1 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

### **Competency Area 4: The graduate as a scholar and scientist.**

Key competency	Module LOs
<p><b>4.5</b> Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).</p>	<p>4.5.1 Identify the main differences between prokaryotes and eukaryotes, recognize different components of the bacterial cell, and outline the functions for each component of the bacterial cell.</p> <p>4.5.2 Define bacterial endospores and recognize their medical importance and outline the essential requirements for bacterial survival and replication.</p> <p>4.5.3 Define pathogen virulence factors and outline ideal antimicrobial agents and their complications.</p> <p>4.5.4 Identify bacterial genome and describe bacteriophage structure and differentiate between its types</p> <p>4.5.5 Describe plasmids, their function and classify them.</p> <p>4.5.6 Classify Gram-positive &amp; -negative cocci. Describe morphology and culture characters. Enumerate the virulence factors. List the diseases caused by them. Formulate proper management plan.</p> <p>4.5.7 Classify Gram-positive bacilli. Describe morphology and culture characters. Enumerate the</p>





virulence factors. List the diseases caused by them. Formulate proper management plan.

4.5.8 Classify Gram-negative bacilli. Describe morphology and culture characters. Enumerate the virulence factors. List the diseases caused by them. Formulate proper management plan.

4.5.9 Classify spirochetes. Describe morphology and culture characters. Enumerate the virulence factors. List the diseases caused by them. Formulate proper management plan.

4.5.10 Classify mycobacterium. Describe morphology and culture characters. Enumerate the virulence factors. List the diseases caused by them. Formulate proper management plan.

4.5.11 Describe morphology and culture characters. Enumerate the virulence factors. List the diseases caused by them. Explain the clinical picture, differential diagnosis and treatment of the most important diseases affecting the respiratory system.

4.5.12 Classify fungi, describe morphology, and culture characters. List the diseases caused by them-. Describe the clinical picture, differential diagnosis, and treatment of most important fungal infections.

4.5.13 Describe structure, classification, growth & replication of viruses.

4.5.14 Outline the clinical picture, lab diagnosis and treatment of most important diseases caused by DNA & RNA viruses.

4.5.15 Describe the definition of medical parasitology and the classification of parasites.

4.5.16 Recognize the different mode of infection of parasites.

4.5.17 Describe the general characters of trematoda and cestode.

4.5.18 Differentiate between trematode and cestode.

4.5.19 Describe the general characters of nematoda.

4.5.20 Describe the general characters of protozoa.

4.5.21 Recognize the vectors transmitting parasitic infection.

4.5.22 Define vector

4.5.23 Recognize the vectors transmitting parasitic infections

4.5.24 Discuss the methods of transmission of diseases by vectors

4.5.25 Outline different types of vector's control.

4.5.26 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.



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- 4.5.27 Evaluate according to evidence the causal relationship of microbes and diseases
- 4.5.28 Categorize a microorganism as a bacterium, virus or fungus according to standard taxonomy
- 4.5.29 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.
- 4.5.30 Analyze theoretical information to select the most appropriate diagnosis from differential diagnosis.
- 4.5.31 Point out a differential diagnosis for each parasitic disease.
- 4.5.32 Interpret & integrate the laboratory diagnosis and treatment measures
- 4.5.33 Integrate basic information about classification, taxonomy of parasites and how to differentiate between different classes.
- 4.5.34 Recognize the scope and limits of their role as students and respect time factor and dates.
- 4.5.35 Demonstrate a professional image concerning behavior, dress and speech.
- 4.5.36 Use computer and internet to extract information and knowledge
- 4.5.37 Manage time and resources effectively and set priorities.

**4.7** Describe drug actions: therapeutics and pharmacokinetics; side effects and interactions, including multiple treatments, long term conditions and non-prescribed medication; and effects on the population.

- 4.7.1 Describe the general principles of drugs and mode of action and recall the rational approach to drug therapy.
- 4.7.2 Explain the behavior of different drugs in the body since their administration until complete elimination, to choose the proper method of administration and the preferable dosage schedule according to the patient condition.
- 4.7.3 Describe the different adverse reactions that could result from the use of different drugs and the mechanism of these reactions for prevention, early diagnosis and counteracting the undesirable effects.
- 4.7.4 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.



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**4.8** Demonstrate basic sciences specific practical skills and procedures relevant to future practice, recognizing their scientific basis, and interpret common diagnostic modalities, including: imaging, electrocardiograms, laboratory assays, pathologic studies, and functional assessment tests.

- 4.7.5** Perform self learning and show a strong commitment to it.
- 4.7.6** Evaluate his own and others work through construction feedback
- 4.7.7** Effectively manage time and resources and set priorities.

- 4.8.1** Apply the rules of laboratory ethics and safety measures while in the lab or in the museum.
- 4.8.2** Use the light microscope to examine and identify microscopic findings of some selected examples of studied diseases.
- 4.8.3** Perform experiments to identify the site of action of unknown drugs according to laboratory experiments.
- 4.8.4** Perform experiments that test the response of isolated and intact preparations (of animals) to some selected drugs.
- 4.8.5** Use the principles of scientific approach to solve scientific problems (scientific methods).
- 4.8.6** Demonstrate a professional image in manner, dress, speech, and personal relationships that is consistent with the medical profession's accepted contemporary standards in the community
- 4.8.7** Perform a Gram stain and a Zeihl-Neelsen stain.
- 4.8.8** Identify morphology and characteristics of medically important bacteria by microscopic examination of stained preparations.
- 4.8.9** Examine and identify culture media and biochemical tests commonly used for bacterial identification and distinguish positive and negative results.
- 4.8.10** Perform hand wash and control of steam sterilization.
- 4.8.11** Draw parasites in their different stages specially the diagnostic and infective stages through examination of microscopic slides.
- 4.8.12** Identify some parasites or their stages by naked eyes (Jars).
- 4.8.13** Examine mounted slides or boxes to identify the most important arthropods of medical interest.
- 4.8.14** Write reports and essays on the different scientific topics.
- 4.8.15** Present clearly and effectively a scientific topic in the practical class, a scientific meetings
- 4.8.16** Work in groups and team
- 4.8.17** Apply effective communication either written or oral.



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4.8.18 Demonstrate honesty and integrity in all relations with teaching staff, colleagues and laboratory technicians.

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### Competency Area 5: The graduate as a member of the health team and part of the health care system.

Module LOs		
<b>5.2</b>	Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management.	5.2.1 Demonstrate respect towards colleagues. 5.2.2 Apply teamwork in educational and professional encounters

### Competency Area 6: The graduate as a lifelong learner and researcher.

Key competency	Module LOs
<b>6.2</b> Develop, implement, monitor, and revise a personal learning plan to enhance professional practice.	6.2.1 Formulate a learning plan for the module in focus. 6.2.2 Apply the learning plan respecting emerging priorities and encounters
<b>6.3</b> Identify opportunities and use various resources for learning.	6.3.1 Use information resources whether written or electronic efficiently for the educational process.
<b>6.6</b> Effectively manage learning time and resources and set priorities.	6.6.1 Manage time and learning resources effectively. 6.6.2 Apply priority setting in the learning process

### III. Module contents: -

Theoretical		
Topic	Teaching Hours	Department
Bacterial Structure	1.5	Microbiology
Bacterial physiology	1.5	Microbiology
Antimicrobial chemotherapy 1	1.5	Microbiology
Antimicrobial chemotherapy 2	1.5	Microbiology
Normal flora	1.5	Microbiology
Host-parasite relationship	1.5	Microbiology
Bacterial Genetics	1.5	Microbiology
Gram +ve cocci	1.5	Microbiology



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Gram –ve cocci	1.5	Microbiology
Gram positive bacilli	1.5	Microbiology
Gram negative bacilli	1.5	Microbiology
Revision on cocci and bacilli	1.5	Microbiology
Mycology	1.5	Microbiology
General virology	1.5	Microbiology
RNA viruses	1.5	Microbiology
DNA viruses 1	1.5	Microbiology
DNA viruses 2	1.5	Microbiology
Pharmacokinetics (General Pharmacology).	1.5	Pharmacology
Pharmacokinetics (absorption & distribution).	1.5	Pharmacology
Pharmacokinetics (Metabolism & Excretion)	1.5	Pharmacology
Pharmacodynamics	1.5	Pharmacology
Pharmacodynamics	1.5	Pharmacology
Introduction to the pharmacology of the autonomic nervous system (ANS)	1.5	Pharmacology
Sympathomimetics	1.5	Pharmacology
Sympatholytic ( $\alpha$ blockers)	1.5	Pharmacology
Sympatholytic ( $\beta$ blockers)	1.5	Pharmacology
Parasympathomimetic	1.5	Pharmacology
Parasympatholytic	1.5	Pharmacology
Non-steroidal Anti-inflammatory drugs 1	1.5	Pharmacology
Non-steroidal Anti-inflammatory drugs 2	1.5	Pharmacology
General of parasitology (1)	1.5	Parasitology
General of parasitology (2)	1.5	Parasitology
Introduction of trematodes, Hyterophys heterophys	1.5	Parasitology
Snail and snail control	1.5	Parasitology
Introduction of cestodes, H.nana, H.diminuta, D.caninum.	1.5	Parasitology
Introduction of Nematodes, Ascaris	1.5	Parasitology
Introduction of protozoa, Giardia, Trichomonas vaginalis	1.5	Parasitology
Introduction of Arthouropodes, mosquito, mosquito control	1.5	Parasitology
Fleas, lice, bugs	1.5	Parasitology
Mites of medical importance 1 (scabies, house dust mites, trombicula akamushi, demodex)	1.5	Parasitology
Mites of medical importance 2 (scabies, house dust mites, trombicula akamushi, demodex)	1.5	Parasitology
Cases and revision	1.5	Parasitology
Inflammation 1	1.5	Pathology
Inflammation 2	1.5	Pathology
Repair	1.5	Pathology
Cellular response to injury 1	1.5	Pathology
Cellular response to injury 2	1.5	Pathology
Intracellular accumulation and deposits	1.5	Pathology





<b>Disturbance of growth</b>	1.5	Pathology
<b>Neoplasia 1</b>	1.5	Pathology
<b>Neoplasia 2</b>	1.5	Pathology
<b>Neoplasia 3</b>	1.5	Pathology
<b>Revision</b>	0.75	Pathology
<b>Total</b>	<b>78.75</b>	
<b>Practical</b>		
	<b>Teaching Hours</b>	<b>Department</b>
<b>Microscopes</b>	1.5	Microbiology
<b>Staining techniques</b>	1.5	Microbiology
<b>Sterilization and hand hygiene</b>	1.5	Microbiology
<b>Culture media 1</b>	1.5	Microbiology
<b>Culture media 2</b>	1.5	Microbiology
<b>Cultural characters</b>	1.5	Microbiology
<b>Gram positive cocci</b>	1.5	Microbiology
<b>Gram negative cocci</b>	1.5	Microbiology
<b>Gram positive bacilli</b>	1.5	Microbiology
<b>Gram negative bacilli</b>	1.5	Microbiology
<b>Revision 1</b>	1.5	Microbiology
<b>Enterobacteriaceae</b>	1.5	Microbiology
<b>Virology 1</b>	1.5	Microbiology
<b>Virology 2</b>	1.5	Microbiology
<b>Mycology1</b>	1.5	Microbiology
<b>Mycology2</b>	1.5	Microbiology
<b>Revision 2</b>	1.5	Microbiology
<b>Categories and sources of drugs</b>	1.5	Pharmacology
<b>Dosage forms of the drugs (part 1)</b>	1.5	Pharmacology
<b>Dosage forms of the drugs (part 2)</b>	1.5	Pharmacology
<b>Routes of drug administration (part 1)</b>	1.5	Pharmacology
<b>Routes of drug administration (part 2)</b>	1.5	Pharmacology
<b>Prescription Writing</b>	1.5	Pharmacology
<b>Drug Dosage calculations</b>	1.5	Pharmacology
<b>Drug Dosage calculations</b>	1.5	Pharmacology
<b>Dose-response curve relationship</b>	1.5	Pharmacology
<b>Experimental Pharmacology</b>	1.5	Pharmacology
<b>Experimental Pharmacology</b>	1.5	Pharmacology
<b>Experimental Pharmacology</b>	1.5	Pharmacology
<b>Revision</b>	1.5	Pharmacology
<b>General parasitology 1</b>	1.5	Parasitology





General parasitology 2	1.5	Parasitology
Introduction of trematodes, Hyterophys heterophys	1.5	Parasitology
Snail and snail control	1.5	Parasitology
Introduction of cestodes, H.nana, H.diminuta, D.caninum	1.5	Parasitology
Introduction of Nematodes, Ascaris	1.5	Parasitology
Introduction of Nematodes, Ascaris	1.5	Parasitology
Introduction of protozoa, Giardia, Trichomonas vaginalis	1.5	Parasitology
Fleas, lice, bugs	1.5	Parasitology
Mites of medical importance (scabies, house dust mites, trombicula akamushi, demodex)	1.5	Parasitology
Cases	1.5	Parasitology
Revision	1.5	Parasitology
Inflammation 1	1.5	Pathology
Inflammation 2	0.75	Pathology
Repair 1	1.5	Pathology
Repair 2	1.5	Pathology
Cellular response to injury 1	1.5	Pathology
Cellular response to injury 2	1.5	Pathology
Disturbance of growth	1.5	Pathology
Benign tumors	1.5	Pathology
Benign tumors	1.5	Pathology
Revision 1	1.5	Pathology
Revision 2	1.5	Pathology
<b>Total</b>	<b>78.75</b>	

#### **IV- Teaching and learning Methods:**

##### **1. Theoretical Teaching:**

###### **b) Interactive lectures: using**

- Brain storming
- Audiovisual aids through animations and diagrams
- Interaction with the students through questions
- Student engagement with discussion

###### **b) Case Based learning**

##### **2. Practical Teaching: conducted using:**

- Practical sessions

##### **3. Self-directed Learning**

#### **V- Student Assessment:**

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### A. Attendance criteria:

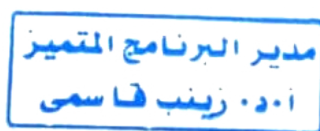
The minimum acceptable attendance is 75%, otherwise students failing to reach that percentage will be prevented from attending the final examination.

### B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes a multiple choice questions, problems-solving exercises and independent learning activities in all subjects. These will be given during tutorial and practical sessions. The Answers are presented and discussed immediately with you after the assessment. The results will be made available to the students.
- **Summative** This type of assessment is used for judgment or decisions to be made about the Students performance. It serves as:
  1. Verification of achievement for the student satisfying requirement
  2. Motivation of the student to maintain or improve performance
  3. Certification of performance
  4. Grades

### C- Summative Assessment methods:

Assessment Method	Percentage	Description	Timing
<b>Module Coursework</b>	30%	20% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		10% Participation in the tutorials, TBL, Research.	During the module
<b>Final practical exam</b>	30%	OSPE Exam	At the end of the module
<b>Final Written</b>	40%	It Includes problem-solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the semester



### D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
<b>Final Written exam.</b>	<b>63</b>	<b>40%</b>
<b>Final Practical exam.</b>	<b>47.25</b>	<b>30%</b>
<b>Activities</b>	<b>47.25</b>	<b>30%</b>



<b>Total</b>	<b>157.5</b>	<b>100%</b>
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### E- Grading:

The Percentage	Symbol	Grade
> 85%	A	Excellent.
75-<85 %	B	Very Good
65 - < 75 %	C	Good.
60 - < 65 %	D	Passed.
< 60 %	F	Failed.
	W	Withdrawn

### VI- List of references and resources:

- Lecture Notes of Module Departments
- References:

#### Pathology:

- Robbins Basic Pathology (Robbins Pathology) 11th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2022.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 5<sup>th</sup> Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2020

#### Pharmacology:

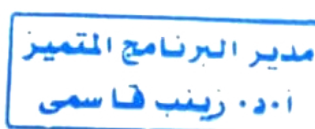
- Basic and Clinical Pharmacology 16th Edition. By: Todd W. Vanderah. McGraw Hill / Medical, 2023.
- Lippincott's Illustrated Reviews: Pharmacology, 8th edition. By: Karen Whalen, Sarah Lercheffeld and Chris Giordian . Lippincott Williams & Wilkins, 2022.
- Essentials of Medical Pharmacology 8th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2018.

#### Microbiology:

- Review of medical microbiology and immunology, 17<sup>th</sup> Edition. By: Warren E. Levinson, Peter Chin-Hong, Elizabeth A. Joyce, Jesse Nussbaum , Brian Schwartz. The McGraw-Hill Companies, 2022.
- Review of medical microbiology, 28th Edition. By: Jawetz EM, Adelberg IL. Lange, 2019.
- Practical Handbook of Microbiology 4<sup>th</sup> Edition. By Lorrence H. Green and Emanuel Goldman,. Taylor & Francis Group, LLC ;2021
- Manual of Practical Microbiology & Immunology, 10th edition. By: El mishad AM. El-Ahram Press, 2014.

#### Parasitology:

- Foundations of Parasitology. 10<sup>th</sup> Edition. By: Larry Roberts, John Janovy, Steven Adler. McGraw-Hill Education, 2015.





- Paniker's Textbook of Medical Parasitology, 9<sup>th</sup> Edition. By: C. K. Jayaram Paniker. JP Medical Ltd, 2020
- Clinical Parasitology, 2nd Edition. By: Elizabeth Zeibig. Saunders, 2012.

## VII- Facilities required for teaching and learning:

- 1-Faculty Lecture halls
- 2-Three equipped labs with microscopes & slides.
- 3-Museum for gross examination
- 4-Faculty library for textbooks & electronic library for web search.
- 5-Audiovisual aids as boards, data show and computers
6. Pharmacology labs fitted with equipment for in vivo and invitro experiments. .

## Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.5	4.5.1, 4.5.37	x	x		x	x		x		x	x	x
4.7	4.7.1, 4.7.7	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.18			x			x		x	x		x
5.2	5.2.1, 5.2.2	x	x	x						x		x
6.2	6.2.1, 6.2.2				x	x	x	x	x	x	x	x
6.3	6.3.1				x	x	x	x	x	x	x	x
6.6	6.6.1, 6.6.2				x	x	x	x	x	x	x	x

### Module Coordinator:

Name: Dr. Hend Kasem

### Program Coordinator:

Prof. Dr. Zeinab Kasemy

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# Communication skills

**University:** Menoufia

**Faculty:** Medicine

## A - Administrative Information

**Module Title:** Communication skills

**Code:** MED 103

**Department offering the Module:** Family Medicine Department.

**Program on which the Module is given:** Menoufia M.B.B. Ch.Credit- points Program (5+2)

**Academic year:** First year

**Semester:** Semester I

**Date of specification:** 2023

**Date of approval by departments council:** 2023

**Date of approval by faculty council:** 2023

**Credit Points:** 1.5 points.

## B- Professional Information

### I- Overall aims of Module:

1. To raise the awareness about good communication skills with patients and colleagues giving them an opportunity to practice these skills in academic and clinical encounters

### ii Learning Outcomes of The Module:

**Competency Area 3: The graduate as a professional.**

Key competency	Module LOs
<b>3.1</b> Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.	<p>3.1.1 Exhibits a courteous and competent image of themselves.</p> <p>3.1.2 Exhibit honesty, integrity, dedication, compassion, and respect when interacting with a patient,</p> <p>3.1.3 complete clinical, administrative, and curriculum activities on time.</p> <p>3.1.4 Assume proper attire and conduct.</p> <p>3.1.5 Continue to have proper professional interactions with staff, families, and patients.</p>
<b>3.3</b> Respect the different cultural beliefs and values in the	<p>3.3.1 Recognize the importance of cultural diversity.</p> <p>3.3.2 Show consideration for the variety of the community as it is shown in the case vignettes.</p>

	community they serve.	3.3.3	Act in a way that shows constructive regard for the many cultural values and beliefs of the community
<b>3.9</b>	Identify and report any unprofessional and unethical behaviors or physical or mental conditions related to himself, colleagues, or any other person that might jeopardize patients' safety.	3.9.1	Explain immoral actions that could jeopardise patient safety.
		3.9.2	Defines the proper channels for reporting dishonest or immoral behaviour.
		3.9.3	Indicates when to report inappropriate, unethical, or unprofessional behaviour in role-played or presented films.
		3.9.4	Demonstrates self-awareness, relationship management, social awareness, and self-management.

### Competency Area 5: The graduate as a member of the health team and part of the health care system.

Key competency		Module LOs	
<b>5.1</b>	Recognize the important role played by other health care professionals in patients' management.	5.1.1	Describe the function of the health care team in managing patients.
		5.1.2	Define the health care team.
		5.1.3	Practice working as a team in role plays tailored to various clinical scenarios.
		5.1.4	Work together with other members of the healthcare team
		5.1.5	Demonstrate respect to other healthcare professionals.
<b>5.2</b>	Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management.	5.2.1	Specify the roles that the health care team shares and overlaps in order to manage patients effectively.
		5.2.2	Define each member of the health care team's role in the decision-making process.
		5.2.3	Work on making decisions collaboratively in simulated scenarios involving various clinical presentations.
		5.2.4	Work together with other members of the healthcare team.
		5.2.5	Treat every member of the medical team with dignity.
		5.2.6	Observe other colleagues' professionalism.
<b>5.3</b>	Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.	5.3.1	Define various reasons why conflicts arise in health team work;
		5.3.2	List various approaches to managing conflicts in the delivery of healthcare;
		5.3.3	Engage in role-playing exercises to practice conflict resolution;

		5.3.4 Effectively communicate with coworkers to resolve disputes and get past disagreements;
		5.3.5 Demonstrate acceptance to the resolution of the conflict in the interest of cooperative teamwork and patient care.
5.5	Communicate effectively using written health records, electronic medical records, or other digital technology.	5.5.1 Enumerate the parts of a medical record. 5.5.2 List the various forms of health records and discuss their advantages and disadvantages. 5.5.3 Enumerate the benefits of digital technology for health information. 5.5.4 Develop your written health record writing skills 5.5.5 Effectively critique the electronic data recording system. 5.5.6 Be truthful and precise when logging and displaying medical information. 5.5.7 Value utilising medical records when speaking with patients

### III- Module Contents:

	Theoretical Title	Teachin hours
1	Introduction to Communication skills firstimpression dealing and respect	1.5
2	Introduction to Communication skills firstimpression dealing and respect	1.5
3	Application (Roleplay)	1.5
4	Rapport	1.5
5	Listening technique	1.5
6	Application (Roleplay)	1.5
7	Types of communication skills (verbal )	1.5
8	Types of communication skills (non-verbal)	1.5
9	Hidden agenda	1.5
10	Application (Roleplay)	1.5
11	Communication with children	1.5
12	Communication with difficult patients1	1.5
13	Communication with difficult patients2	1.5
14	Application (Roleplay)	1.5



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15	Revision	1.5
	<b>TOTAL</b>	<b>22.5</b>

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

- Lectures for acquisition of knowledge: Two large groups, each group once /week using audiovisual aids and interaction.
- PowerPoint Presentations: at lectures.
- Role Play

#### **V- 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. Summative Assessment methods:**

- **70 % final written exam at the end of the semester**
  - Include problem-solving, multiple-choice questions, matching, extended matching, and modified short essay.
- **30 % Module Coursework** of activities and participation

##### **C. Weighing of Assessment:**

Method of Assessment	Marks	Percentage
<b>Final written exam.</b>	<b>15.75</b>	<b>70%</b>
<b>Activities</b>	<b>2.25</b>	<b>10%</b>
<b>End Module</b>	<b>4.5</b>	<b>20 %</b>
<b>Total</b>	<b>22.5</b>	<b>100%</b>

#### **VI. List of references and resources:**

- **Lecture notes**
- **Essential Books:**
  - Communication Skills for Medicine 3rd Edition. By: Margaret Lloyd, Robert Bor MA. Churchill Livingstone, 2009.
  - Clinical Communication Skills for Medicine 4th Edition, By: Margaret Lloyd, Robert Bor, Lorraine M Noble. Elsevier, 2018.

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

- Lectures hall
- Places for small groups training

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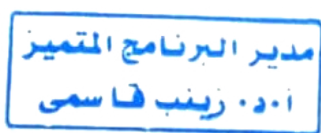


Menoufia Faculty of Medicine  
Menoufia



**Module Coordinator: Dr. Dina Mostafa**

**Program Coordinator: Prof. Dr. Zeinab  
Kasemy**



## مدخل الجودة والاعتماد في مؤسسات التعليم العالي

الكلية: الطب

الجامعة: المنوفية

### أ – معلومات أساسية :

اسم المقرر : مدخل الجودة والاعتماد في مؤسسات التعليم العالي

كود المقرر UN1 101

القسم الذى يقدم المقرر: مركز ضمان الجودة باكلية

البرنامج الذى يدرس به المقرر: برنامج بكالوريوس الطب والجراحة

الفرقة : الأولى

منسق المقرر : اد / نجلاء أحمد – ا.د. إكرامي – ا.د. رانيا عزمي

تاريخ إقرار التوصيف: 2023

تاريخ مراجعة التوصيف: 2023

عدد الساعات الدراسية: 30 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 والاعتماد 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 والاعتماد بجمهورية مصر العربية
- 5- يناقش دور الهيئة القومية لضمان جودة التعليم
- 6- يرتب خطوات اعتماد مؤسسة تعليمية

7- يوضح معايير اعتماد مؤسسات التعليم العالي بمصر

8- يفسر مؤشرات معايير الاعتماد

ب- المهارات الذهنية:

- 1- يقارن بين أنواع الاعتماد
- 2- يستنتج دور الطالب في تحقيق معايير الاعتماد
- 3- يقارن بين دور مركز الجودة بالجامعة و دور وحدة ضمان الجودة بمؤسسة تعليمية
- 4- يصمم خطة لإعتماد مؤسسة تعليمية
- 5- يقيم ممارسات مؤسسة تعليمية لتحقيق معايير الاعتماد

ج- المهارات المهنية:

- 1- يمارس توعية لأقرانه بالجامعة بجودة التعليم وفكر الجودة
- 2- يكتب رؤية ورسالة لكليته
- 3- يقيس ممارسات مؤسسة لتحقيق مؤشرات المعايير

د - المهارات العامة:

- 1- يجمع ويعرض المعلومات بطريقة ملائمة
- 2- يعمل في ويقود فريق عمل
- 3- يتواصل بإيجابية مع الآخرين.

المقرر 2 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
- اجراءات 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 25% من الدرجات
- امتحان تحريري في نهاية العام يمثل 75% من الدرجات
- المقرر من 20 درجة

### مصادر التعلم

- كتاب مدخل إلى جودة التعليم والإعتماد

منسق المقرر: اد / نجلاء أحمد—ا.د. إكرامي---ا.د. رانيا عزمي

**Module Coordinator: Dr. Ekramy Gamal**

**Program Coordinator: Prof. Dr. Zeinab Kasemy**

مدير البرنامج المتميز  
ا.د. زينب قاسمي



# Semester II

مدير البرنامج المتميز  
أ.د. زينب قاسمي



# Musculoskeletal

**University:** Menoufia

**Faculty:** Medicine

## A - Administrative Information

**Module Title:** Musculoskeletal

**Code No:** MED 104

**Department offering the Module:** Anatomy, Physiology, Histology, Pathology, and Biochemistry departments

**Program on which the Module is given:** Menoufia M.B.B. Ch. Credit- points Program (5+2)

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

**Semester:** 2

**Date Of Specification:** 2023

**Date of approval by Departments and Faculty Council** 2023

**Total points:** 12 credit points.

Teaching hours			
	Lectures	Practical	Activities
Anatomy	45	45	18
Histology	15	15	6
Biochemistry	15	15	6
Physiology	7.5	7.5	3
Pathology	7.5	7.5	3
<b>Total</b>	<b>90</b>	<b>90</b>	<b>36</b>

This is the Distribution of 60% of the module equivalent contact hours according to the decision of the University Council"

## B- Professional Information

### I- Aim of the Module:

To provide competencies concerning embryological development, histological structure, biochemical composition and anatomical relation of different Musculoskeletal tissues of human body in addition to physiological functions of musculoskeletal system and factors affecting, with clinical correlation whenever possible.

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د. زينب قاسمى

## **II- Learning Outcomes of the Module:**

### **Competency Area 3: The graduate as a professional.**

Key competency		Module LOs
<b>3.1</b>	Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.	<p>3.1.2 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.3.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

### **Competency Area 4: The graduate as a scholar and scientist.**

Key competency		Module LOs
<b>4.1</b>	Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1 Recognize the normal development of limb and its congenital anomalies.</p> <p>4.1.2 Identify the component of cartilage, bone and extracellular matrix.</p> <p>4.1.3 Describe the structure of the cartilage.</p> <p>4.1.4 Describe the structure of different types of bone tissue.</p> <p>4.1.5 Describe anatomy of joint in upper limb, thorax and abdomen.</p> <p>4.1.6 Recognize the deformity associated with different bone fractures.</p> <p>4.1.7 Clarify the structural characteristics of two basic tissue types (Muscular and nervous).</p> <p>4.1.8 Describe anatomy of muscles and inter-muscular spaces of the lower limb, vertebral column, head and neck.</p> <p>4.1.9 Describe the anatomy of different joints in the</p>

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	<p>lower limb, vertebral column.</p> <p>4.1.10 Identify the course, important relations, distribution and effect of injury of lumbar, sacral plexuses and each peripheral nerve in the lower limb, head, and neck and effects of their injury.</p> <p>4.1.11 Determine the normal development of the vertebral column and its congenital anomalies.</p> <p>4.1.12 Identify the histological structure of skeletal muscles.</p> <p>4.1.13 Describe the anatomy of muscles in the upper limb, anterior thoracic wall, anterior abdominal wall and posterior abdominal wall.</p> <p>4.1.14 Identify the role of different muscles (of the upper limb, thorax and abdomen) in movement.</p> <p>4.1.15 Describe the anatomy of the joint in the upper limb, thorax and abdomen.</p> <p>4.1.16 Identify the component of the peripheral nervous system.</p> <p>4.1.17 Identify the course, important relations, and distribution of each peripheral nerve in the upper limb.</p> <p>4.1.18 Describe the potential difference between both sides of the skeletal muscle membrane and the determinant of it.</p> <p>4.1.19 Identify phases and mechanism of action potential</p> <p>4.1.20 Describe the mechanisms of skeletal and smooth muscle contraction</p> <p>4.1.21 List factors affecting skeletal and smooth muscle contraction.</p> <p>4.1.22 Illustrate the structure of muscles.</p> <p>4.1.23 Illustrate structure of peripheral nerve.</p> <p>4.1.24 Discuss the action of different muscles in upper limb, thoracic wall and abdominal walls.</p> <p>4.1.25 Differentiate the nerve supply of different muscles.</p> <p>4.1.26 Distinguish between an isometric and isotonic contraction.</p> <p>4.1.27 Discriminate smooth muscle contraction from skeletal muscle contraction</p> <p>4.1.28 Relate the nerve and vessels to the bone.</p> <p>4.1.29 Apply the principles of continuous medical education (CME).</p> <p>4.1.30 Use the internet and learn searching skills.</p>
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4.2	Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	<p>4.2.1 Illustrate the biochemical composition of connective tissue, muscles, bone, collagen, and extracellular matrix.</p> <p>4.2.2 Explain the role of calcium, phosphorus and magnesium in bone mineralization.</p> <p>4.2.3 Identify sources and fate of energy needed for muscle contraction.</p> <p>4.2.4 Correlate the equilibrium potential of ions to Resting membrane potential and action potential.</p> <p>4.2.5 Explain the mechanism of impulse transmission in excitable membranes and at the neuromuscular junction.</p> <p>4.2.6 Establish a concise activity according to standard scientific thinking and integrity.</p>
4.5	Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1 Report diseases related to defective calcium, phosphorus metabolism and collagen synthesis.</p> <p>4.5.2 Describe diseases related to defects in collagen syntheses, muscles, and bone.</p> <p>4.5.3 Effectively manage time and resources and set priorities.</p> <p>4.5.4 Recognize the deformity associated with disc prolapse, joint dislocation, and different bone fractures and factors affecting, stages and complications of bone healing.</p> <p>4.5.5 Recognize the features (demographic, radiologic, and pathological) of most common benign, locally malignant, and malignant bone tumors.</p> <p>4.5.6 Recognize the general basis of osteopenic diseases including rickets, osteomalacia and osteoporosis.</p> <p>4.5.7 Identify the pathogenesis of most common inflammatory diseases affecting musculoskeletal system (Bone, muscles and joints).</p>
4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. Recognize the effect of peripheral nerve injuries in the movements (deformity) and sensation of the upper limb.</p> <p>1.6.2 Evaluate his own and others' work through construction feedback.</p> <p>1.6.3 Solve problems through case studies of certain musculoskeletal system diseases.</p>

<p><b>4.8</b> Demonstrate basic sciences specific practical skills and procedures relevant to future practice, recognizing their scientific basis, and interpret common diagnostic modalities, including: imaging, electrocardiograms, laboratory assays, pathologic studies, and functional assessment tests.</p>	<p>1.8.1 Interpret symptoms, signs, and biochemical laboratory findings of some mineral and nutritional deficiency diseases.</p> <p>1.8.2 Apply the method to test the joint function.</p> <p>1.8.3 Apply the method to test the nerve injury.</p> <p>1.8.4 Draw and label the structures they have seen under a light microscope showing bone tissue during practical classes.</p> <p>1.8.5 Examine and identify microscopic slides of bone tissue</p> <p>1.8.6 Recognize biochemical instruments used to measure blood calcium, phosphorus and magnesium.</p> <p>1.8.7 Practice measurement of serum protein and creatinine.</p> <p>1.8.8 Interpret the results variation of calcium, phosphorus and magnesium and their relation to different diseases</p> <p>1.8.9 Identify dissected structures of the upper limb, thorax and abdomen, according to the present relations.</p> <p>1.8.10 Distinguish the consistency of arteries, veins &amp; nerves.</p> <p>1.8.11 Draw diagrams showing the courses and distribution of nerves and main blood vessels in the upper limb.</p> <p>1.8.12 Draw and label the structures they have seen under a light microscope showing muscular and nervous tissue during practical classes.</p> <p>1.8.13 Examine and identify microscopic slides of muscular and nervous tissue</p> <p>1.8.14 Differentiate between types of different musculoskeletal tissues and organs in histological slides.</p> <p>1.8.15 Sketch simple muscle twitch and explain the cause of each phase.</p> <p>1.8.16 Communicate effectively and respectfully with staff members.</p> <p>1.8.17 Manage time efficiently and work in a group.</p>
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**Competency Area 5: The graduate as a member of the health team and part of the health care system.**

Key competency	Module LOs
<b>5.2</b> Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management.	5.2.3 Demonstrate respect towards colleagues. 5.2.4 Apply teamwork in educational and professional encounters

**Competency Area 6: The graduate as a lifelong learner and researcher.**

Key competency	Module LOs
<b>6.2</b> Develop, implement, monitor, and revise a personal learning plan to enhance professional practice.	6.2.3 Formulate a learning plan for the module in focus. 6.2.4 Apply the learning plan respecting emerging priorities and encounters
<b>6.3</b> Identify opportunities and use various resources for learning.	6.3.2 Use information resources whether written or electronic efficiently for the educational process.
<b>6.6</b> Effectively manage learning time and resources and set priorities.	6.6.3 Manage time and learning resources effectively. 6.6.4 Apply priority setting in the learning process

**III. Module contents:**

Theoretical		
Topic	Teaching Hours	Department
Development and anomalies of the limbs	1.5	Anatomy
Pectoral region	1.5	Anatomy
Axilla – introduction to upper limb innervation	1.5	Anatomy
Muscles of the back and scapular region	1.5	Anatomy
Muscles of the arm- cubital fossa	1.5	Anatomy

<b>Muscles of the anterior compartment of the forearm</b>	1.5	Anatomy
<b>Muscles of the posterior compartment of the forearm</b>	1.5	Anatomy
<b>Anatomy of the hand</b>	1.5	Anatomy
<b>Nerves of the upper limb and injuries</b>	1.5	Anatomy
<b>Joints</b>	1.5	Anatomy
<b>Anterior compartment of the thigh</b>	1.5	Anatomy
<b>Medial compartment of the thigh</b>	1.5	Anatomy
<b>Femoral Triangle</b>	1.5	Anatomy
<b>Gluteal region</b>	1.5	Anatomy
<b>Back of thigh and Popliteal fossa</b>	1.5	Anatomy
<b>Posterior compartments of the leg and foot</b>	1.5	Anatomy
<b>Lumber and sacral plexuses. Peripheral nerve injury of lower limb</b>	1.5	Anatomy
<b>Joints of the lower limb</b>	1.5	Anatomy
<b>Anatomy of the vertebral column and its common osteological injuries</b>	1.5	Anatomy
<b>Anterior thoracic wall and diaphragm</b>	1.5	Anatomy
<b>Posterior abdominal wall- Diaphragm</b>	1.5	Anatomy
<b>Anterior abdominal wall</b>	1.5	Anatomy
<b>Posterior abdominal wall</b>	1.5	Anatomy
<b>Scalp and Face 1</b>	1.5	Anatomy
<b>Scalp and Face 2</b>	1.5	Anatomy
<b>Triangles of the Neck</b>	1.5	Anatomy
<b>Sternomastoid &amp; suprahyoid muscles</b>	1.5	Anatomy
<b>Infrahyoid muscles</b>	1.5	Anatomy
<b>Muscles of mastication</b>	1.5	Anatomy
<b>Temporomandibular joint</b>	1.5	Anatomy
<b>Muscular tissue 1</b>	1.5	Histology
<b>Muscular tissue 2</b>	1.5	Histology
<b>Histology of cartilage</b>	1.5	Histology
<b>Histology of the bone (1)</b>	1.5	Histology
<b>Histology of the bone (2)</b>	1.5	Histology
<b>Nervous tissue (1)</b>	1.5	Histology
<b>Nervous tissue (2)</b>	1.5	Histology
<b>Nervous tissue (3)</b>	1.5	Histology
<b>Revision</b>	1.5	Histology
<b>Revision</b>	1.5	Histology
<b>Vitamins 1</b>	1.5	Biochemistry
<b>Vitamins 2</b>	1.5	Biochemistry
<b>Minerals 1</b>	1.5	Biochemistry
<b>Minerals 2</b>	1.5	Biochemistry
<b>Bone mineralization 1</b>	1.5	Biochemistry

<b>Bone mineralization 2</b>	1.5	Biochemistry
<b>Extracellular matrix 1</b>	1.5	Biochemistry
<b>Extracellular matrix 2</b>	1.5	Biochemistry
<b>Purine and pyrimidine 1</b>	1.5	Biochemistry
<b>Purine and pyrimidine 2</b>	1.5	Biochemistry
<b>Membrane &amp; Action potential</b>	1.5	Physiology
<b>Neuromuscular transmission</b>	1.5	Physiology
<b>Excitation contraction coupling</b>	1.5	Physiology
<b>Factors affecting Muscle contraction</b>	1.5	Physiology
<b>Physiology of smooth muscle</b>	1.5	Physiology
<b>Metabolic diseases</b>	1.5	Pathology
<b>Osteomyelitis and arthritis</b>	1.5	Pathology
<b>Bone tumors</b>	1.5	Pathology
<b>Miscellaneous Benign and Malignant Tumors 1</b>	1.5	Pathology
<b>Miscellaneous Benign and Malignant Tumors 2</b>	1.5	Pathology
<b>Total</b>	<b>90</b>	
<b>Practical</b>		
<b>Practical</b>	<b>Teaching Hours</b>	<b>Department</b>
<b>Bone of upper limb (Clavicle, scapula and humerus)</b>	1.5	Anatomy
<b>Radiology</b>	1.5	Anatomy
<b>Muscles of pectoral region + back</b>	1.5	Anatomy
<b>Scapular region and axilla</b>	1.5	Anatomy
<b>Radius, ulna and hand</b>	1.5	Anatomy
<b>Muscles of the arm+ cubital fossa</b>	1.5	Anatomy
<b>Muscles of the front of forearm</b>	1.5	Anatomy
<b>Muscles of back of forearm 1</b>	1.5	Anatomy
<b>Muscles of back of forearm 2</b>	1.5	Anatomy
<b>Revision</b>	1.5	Anatomy
<b>Bone of lower limb (1) -</b>	1.5	Anatomy
<b>Front and Medial Sides of the Thigh and Femoral Triangle</b>	1.5	Anatomy
<b>Gluteal region and Back of thigh</b>	1.5	Anatomy
<b>Bone 2</b>	1.5	Anatomy
<b>Anterior compartment of the Leg</b>	1.5	Anatomy
<b>Lateral and dorsum of the foot</b>	1.5	Anatomy
<b>Posterior compartment of the Leg.</b>	1.5	Anatomy
<b>Revision</b>	1.5	Anatomy
<b>Vertebrae, ribs and sternum</b>	1.5	Anatomy

<b>Thoracic cage</b>	1.5	Anatomy
<b>Anterior abdominal wall</b>	1.5	Anatomy
<b>Posterior abdominal wall</b>	1.5	Anatomy
<b>Skull and mandible</b>	1.5	Anatomy
<b>Scalp and face</b>	1.5	Anatomy
<b>Neck triangles and suprahyoid muscles</b>	1.5	Anatomy
<b>Infrahyoid muscles &amp; Thyroid gland</b>	1.5	Anatomy
<b>Muscles of mastication &amp; Cervical lymph nodes</b>	1.5	Anatomy
<b>Revision</b>	1.5	Anatomy
<b>Final revision.</b>	1.5	Anatomy
<b>Final revision.</b>	1.5	Anatomy
<b>Practical muscle 1</b>	1.5	Histology
<b>Practical muscle 2</b>	1.5	Histology
<b>Practical cartilage 1</b>	1.5	Histology
<b>Practical cartilage 2</b>	1.5	Histology
<b>Practical bone</b>	1.5	Histology
<b>Practical bone 2</b>	1.5	Histology
<b>Revision</b>	1.5	Histology
<b>Practical nervous</b>	1.5	Histology
<b>Practical nervous</b>	1.5	Histology
<b>Revision</b>	1.5	Histology
<b>Lab precautions</b>	1.5	Biochemistry
<b>Specimen collection</b>	1.5	Biochemistry
<b>Normal and abnormal constituents of the urine</b>	1.5	Biochemistry
<b>Normal and abnormal constituents of the urine</b>	1.5	Biochemistry
<b>Normal and abnormal constituents of the urine</b>	1.5	Biochemistry
<b>Instruments</b>	1.5	Biochemistry
<b>Measurement of serum Creatinine</b>	1.5	Biochemistry
<b>Measurement of uric acid</b>	1.5	Biochemistry
<b>Results interpretation</b>	1.5	Biochemistry
<b>Revision</b>	1.5	Biochemistry
<b>Simple muscle twitch</b>	1.5	Physiology
<b>Simple muscle twitch</b>	1.5	Physiology
<b>Factors Affecting Skeletal Muscle Contraction</b>	1.5	Physiology
<b>Effect of changing frequency of stimulation on muscle contraction</b>	1.5	Physiology

Effect of changing frequency of stimulation on muscle contraction & revision	1.5	Physiology
Metabolic diseases	1.5	Pathology
Osteomyelitis and arthritis	1.5	Pathology
Bone tumors	1.5	Pathology
Miscellaneous Benign and Malignant Tumors	1.5	Pathology
Revision	1.5	Pathology
<b>Total</b>	<b>90</b>	

#### **IV- Teaching and learning Methods:**

##### **1. Theoretical Teaching:**

###### **a) Interactive lectures: using**

- Brainstorming
- Audiovisual aids through animations and diagrams
- Interaction with the students through questions
- Student engagement with discussion

###### **b) Case Based learning**

##### **2. Practical Teaching: conducted using:**

- Practical sessions

##### **3. Self-directed Learning**

#### **V- 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. Types of Assessment:**

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes a multiple choice questions, problems-solving exercises and independent learning activities in all subjects. These will be given during tutorial and practical sessions. The Answers are presented and discussed immediately with you after the assessment. The results will be made available to the students.
- **Summative** This type of assessment is used for judgment or decisions to be made about the Students performance. It serves as:
  1. Verification of achievement for the student satisfying requirement
  2. Motivation of the student to maintain or improve performance
  3. Certification of performance
  4. Grades

### C- Summative Assessment methods:

Assessment Method	Percentage	Description	Timing
<b>Module Coursework</b>	30%	20% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		10% Participation in the tutorials, TBL, Research.	During the module
<b>Final practical exam</b>	30%	OSPE Exam	At the end of the module
<b>Final Written</b>	40%	It Includes problem-solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the semester

### D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
<b>Final Written exam.</b>	<b>72</b>	<b>40%</b>
<b>Final Practical exam.</b>	<b>54</b>	<b>30%</b>
<b>End module exam</b>	<b>36</b>	<b>20%</b>
<b>Activities</b>	<b>18</b>	<b>10%</b>
<b>Total</b>	<b>180</b>	<b>100%</b>

### E- Grading for by GPA System:

The Percentage	Symbol	Grade
> 85%	A	Excellent.
75-<85 %	B	Very Good
65 - < 75 %	C	Good.
60 - < 65 %	D	Passed.
< 60 %	F	Failed.
	W	Withdrawn

## **VI- List of references and Resources**

### **Lecture Notes of Module Departments**

#### **References:**

##### **Anatomy:**

- Gray's Anatomy for Students. 4<sup>th</sup> Edition. By: Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell. Churchill Livingstone; 2020
- Langman's Medical Embryology, 14th Edition. By: T.W. Sadler. Williams and Wilkins; 2018
- Grant's Atlas of Anatomy: International Edition by Arthur F. Dalley Anne M.R. Agur. LWW; 2020.
- Netter Atlas of Human Anatomy: Classic Regional Approach. 8th Edition by Frank H. Netter. Elsevier ;2022

##### **Physiology:**

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 14th Edition. By: John E. Hall and Michael E. Hall. Elsevier 2021.
- Ganong's Review of Medical Physiology 26th Edition. By: Jason Yuan, Kim E. Barrett, Susan M. Barman, Heddwen L. Brooks. McGraw-Hill Medical; 2019.
- Physiology (Lippincott's Illustrated Reviews Series) 2nd Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2019.

##### **Histology:**

- Junqueira's Basic Histology: Text and Atlas, 16th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2021.
- Wheater's Functional Histology, 7th Edition by Geraldine O'Dowd, Sarah Bell. Elsevier ;2023
- diFiore's Atlas of Histology with Functional Correlations, 13th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2017.

##### **Biochemistry:**

- Harper's Illustrated Biochemistry 32nd Edition. By Peter J. Kennelly, Kathleen M. Botham, Owen McGuinness, Victor W. Rodwell, P. Anthony Weil. McGraw Hill / Medical, 2022.
- Lippincott's Illustrated Reviews Biochemistry, 8TH Edition. By Emine E. Abali, Susan D. Cline, David S. Franklin, Dr. Susan M. Viselli. LWW, 2021.
- Textbook of Biochemistry with Clinical Correlations 7th Edition. By: Thomas M. Devlin. John Wiley & Sons, 2010.

##### **Pathology:**

- Robbins Basic Pathology (Robbins Pathology) 11th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2022.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 5<sup>th</sup> Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2020

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

1. Faculty Lecture halls
2. Equipped labs with microscopes, slides, materials.
- 3 3-Faculty library for textbooks & electronic library for web search.
4. 4-Audiovisual aids as boards, data show and computers Lecture halls at the faculty

5. Dissecting room including cadavers, bones and plastic models
6. Museum specimens

### Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.30	x	x		x	x		x		x	x	x
4.2	4.2.1, 4.2.6	x	x		x	x		x		x	x	x
4.5	4.5.1 to 4.5.7	x	x		x	x		x		x	x	x
4.6	4.6.1 to 4.6.3	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.17			x			x		x	x		x
5.2	5.2.1, 5.2.2	x	x	x						x		x
6.2	6.2.1, 6.2.2				x	x	x	x	x	x	x	x
6.3	6.3.1				x	x	x	x	x	x	x	x
6.6	6.6.1, 6.6.2				x	x	x	x	x	x	x	x

#### Module Coordinator:

Name: Dr. Sara Gamal Abdelkawy

#### Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

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أ.د. زينب قاسمي



## Cardiovascular system

**University:** Menoufia

**Faculty:** Medicine

### A-Administrative information

**Module Title:** Cardiovascular system

**Code No:** MED105

**Department offering the course and teaching hours:** Anatomy, Histology, Physiology, Pathology and Pharmacology.

**Program (s) on which the course is given:** Menoufia M.B.B. Ch Credit- points Program (5+2).

**Academic year/level:** First level

**Semester:** Second Semester

**Date of specification:** 2023

**Date of approval by Departmental and Faculty Council:** 2023

**Credit points:** 12 credit points

Teaching hours			
	Lectures	Practical	Activities
Anatomy	19.5	19.5	7.8
Histology	8.25	8.25	3.3
Physiology	30.75	30.75	12.3
Pathology	15.75	15.75	6.3
Pharmacology	15.75	15.75	6.3
Total	90	90	36
This is the Distribution of 60% of the module equivalent contact hours according to the decision of the University Council"			

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أ.د. زينب قاسم



## - Professional Information

### I- Aim of the Module:

To provide the students with a basic knowledge of the normal anatomical and histological structure, pathology of heart & blood vessels, the pharmacological basis of using drugs acting on the heart and blood vessels.

### II- Learning Outcomes of The Module:

#### Competency Area 3: The graduate as a professional.

Key competency	Module LOs
3.1 Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.	3.1.3 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members 3.1.4 Demonstrate commitment and integrity while preparing the coursework and assignments

#### Competency Area 4: The graduate as a scholar and scientist.

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	4.1.1. Describe the external and internal features of the heart. 4.1.2. Outline the surface anatomy, blood vessels & nerve supply of the heart and valves and the sites of auscultation 4.1.3. Describe types & innervation of the pericardium & how the cardiac pain impulses reach consciousness. 4.1.4. Describe the anatomy of the great vessels & apply the important related clinical notes. 4.1.5. Clarify the structural characteristics of the cardiac muscle & vascular tissue 4.1.6. Describe the functional capabilities of each tissue type and relate them to the structure. 4.1.7. Discuss the basic histological structure of vascular systems. 4.1.8. Define venous return. 4.1.9. Identify the concept of "resistance to venous return" and know what factors determine its value theoretically, what

factors are most important in practice, and how various interventions would change the resistance to venous return.

- 4.1.10. Discuss the interaction of intrinsic (local), neural, and humoral control mechanisms and contrast their relative dominance in the CNS, coronary, cutaneous, and capillary circulations.
- 4.1.11. Apply the anatomical facts while examining the living subject in order to reach a proper diagnosis.
- 4.1.12. Correlate the structure with the function of cardiac muscle and blood vessels
- 4.1.13. Interpret the light microscopic appearance of normal cells of cardiac muscle and blood vessels
- 4.1.14. Conclude the normal structure of histological slide.
- 4.1.15. Construct structures that could be present in a cell from its function
- 4.1.16. Relate the composition of each tissue type to its specific functions.
- 4.1.17. Distinguish a physiological from pathological condition.
- 4.1.18. Integrate physiology of CVS with other basic and clinical sciences.

**4.5** Identify various causes (genetic, developmental, metabolic, toxic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).

- 4.5.1. Identify the pathogenesis, causes (etiology) of rheumatic fever, endocarditis, pericarditis, cardiomyopathy, heart failure, atherosclerosis, hypertension, thrombosis, myocardial infarction, ischemic coronary diseases, aneurysm and tumors of blood vessels and different types of oedema.
- 4.5.2. Determine the fate and complications of rheumatic fever, endocarditis, pericarditis, cardiomyopathy, atherosclerosis, hypertension, thrombosis, myocardial infarction, ischemic coronary diseases.
- 4.5.3. Predict the diagnosis of different diseases based on the underlying gross and microscopic pictures.

**4.6** Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.

- 4.6.1. Describe the characteristic gross and microscopic pictures of rheumatic fever, endocarditis, pericarditis, cardiomyopathy, atherosclerosis, thrombosis, myocardial infarction, ischemic coronary diseases and tumors of blood vessels.

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| <p><b>4.7</b> Describe drug actions: therapeutics and pharmacokinetics; side effects and interactions, including multiple treatments, long term conditions and non-prescribed medication; and effects on the population.</p> | <p>4.7.1. List drugs that are used to treat chronic heart failure, hypertension, angina&amp; arrhythmia.</p> <p>4.7.2. Discuss the beneficial effects of beta blockers &amp; spironolactone in reducing mortality in heart failure, the choices of different antihypertensive drugs in different disease states, the importance of beta blockers as first choice maintenance therapy of classic angina&amp; the choices of different antiarrhythmic drugs in various types of arrhythmias.</p> <p>4.7.3. Explain the mechanism of action of drugs used in heart failure and hypertension</p> <p>4.7.4. List the main adverse effects of thiazide, frusemide, potassium sparing diuretics, sympathomimetics used in heart failure and hypotension, sympathetic depressants used in treatment of Hypertension, of beta blockers and alpha blockers&amp; main antiarrhythmic drugs.</p> <p>4.7.5. Explain the adverse effects of sympathomimetic, beta and alpha blockers.</p> <p>4.7.6. Outline different types of beta blockers and select the appropriate drug for different disease states</p> <p>4.7.7. Discuss the choices of different antiarrhythmic drugs in various types of arrhythmias.</p> <p>4.7.8. Explain how the increase in intracellular sodium &amp; calcium are responsible for both the beneficial effects of digoxin on myocardial contractility as well as for its electrophysiological &amp; arrhythmogenic effects, the main difference between ACEis and ARBs and why they are preferred in diabetics and in patient with nephropathy.</p> |
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| <p><b>4.8</b> Demonstrate basic sciences specific practical skills and procedures relevant to future practice, recognizing their scientific basis, and interpret common diagnostic modalities, including: imaging, electrocardiograms, laboratory assays, pathologic studies, and functional assessment tests.</p> | <p>4.8.1. 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.</p> <p>4.8.2. Integrate basic anatomical, histopathological, and physiological aspects of heart &amp; blood vessels with clinical data.</p> <p>4.8.3. Expect the outcome of disturbed function.</p> <p>4.8.4. Solve problems through case study</p> <p>4.8.5. Interpret the results of practical lab.</p> <p>4.8.6. Sketch a typical action potential in a ventricular muscle and a pacemaker cell. Describe how ionic currents contribute to the four phases of the cardiac action potential. Use this information to explain differences in shapes of the action potentials of different cardiac cells</p> <p>4.8.7. Draw, in correct temporal relationship, the pressure, volume, heart sound, and ECG changes in the cardiac cycle</p> <p>4.8.8. Practice basic practical skills and competencies essential for future medical practice.</p> <p>4.8.9. Demonstration of the external and internal features of the heart chambers, blood vessels of the heart, related vessels to the heart &amp; vessels of upper &amp; lower limbs</p> <p>4.8.10. Use the microscope efficiently to obtain information from histological slides</p> <p>4.8.11. Examine the histological glass slides &amp; differentiate between types of cells and tissues in histological slides.</p> <p>4.8.12. Draw and label the structures they have seen in electron photomicrographs and under light microscope during practical classes.</p> <p>4.8.13. Perform the measurement of arterial blood pressure.</p> <p>4.8.14. Manipulate a stethoscope for hearing heart and respiratory sounds.</p> <p>4.8.15. Record and read an electrocardiogram.</p> <p>4.8.16. Present physiological scientific data in a graphical form.</p> <p>4.8.17. Comment on some clinical parameters such as: ABP, ECG for a normal individual.</p> <p>4.8.18. Recognize gross and microscopic pictures aiming at reaching the correct diagnosis.</p> <p>4.8.19. Identify an unknown drug by its effect on different types of heart receptors</p> <p>4.8.20. Explain the choices of drugs according to the stage of heart failure, the choices of different antihypertensive drugs in different disease states, the beneficial effects of combinations of antihypertensives &amp; the different methods of prevention of recurrent rheumatic fever</p> |
|--|---|

- 4.8.21. Explain the essential lines of treatment of acute attack  
4.8.22. Select the proper antihypertensive during pregnancy.

**Competency Area 5: The graduate as a member of the health team and part of the health care system.**

Key competency	Module LOs
<b>5.2</b> Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management.	5.2.3 Demonstrate respect towards colleagues. 5.2.4 Apply teamwork in educational and professional encounters

**Competency Area 6: The graduate as a lifelong learner and researcher.**

Key competency	Module LOs
<b>6.2</b> Develop, implement, monitor, and revise a personal learning plan to enhance professional practice.	6.2.3 Formulate a learning plan for the module in focus. 6.2.4 Apply the learning plan respecting emerging priorities and encounters
<b>6.3</b> Identify opportunities and use various resources for learning.	6.3.2 Use information resources whether written or electronic efficiently for the educational process.
<b>6.6</b> Effectively manage learning time and resources and set priorities.	6.6.3 Manage time and learning resources effectively. 6.6.4 Apply priority setting in the learning process

### **III. Module contents:**

Theoretical		
Topic	Teaching Hours	Department
Introduction and general features of the heart.	1.5	Anatomy
Anatomy of the pericardium.	1.5	Anatomy
Blood and nerve supply of the heart	1.5	Anatomy
Conducting system of the heart.	1.5	Anatomy
Great blood vessels (ascending aorta, arch, descending thoracic aorta)	1.5	Anatomy

<b>Great blood vessels (Abdominopelvic arteries: (abdominal aorta, common iliac, ext. and internal iliac arteries)</b>	1.5	Anatomy
<b>Arteries of lower limb.</b>	1.5	Anatomy
<b>Carotid &amp; subclavian system (1).</b>	1.5	Anatomy
<b>Carotid &amp; subclavian system (2).</b>	1.5	Anatomy
<b>Arteries of the upper limb.</b>	1.5	Anatomy
<b>Venous system (deep) of the body.</b>	1.5	Anatomy
<b>Venous system (superficial) of the body.</b>	1.5	Anatomy
<b>Development of the CVS.</b>	1.5	Anatomy
<b>Cardiac muscle 1</b>	1.5	Histology
<b>Cardiac muscle 2</b>	1.5	Histology
<b>Vascular system1</b>	1.5	Histology
<b>Vascular system2</b>	1.5	Histology
<b>Vascular system3</b>	1.5	Histology
<b>Revision</b>	0.75	Histology
<b>Diuretics1</b>	1.5	Pharmacology
<b>Diuretics 2</b>	1.5	Pharmacology
<b>Treatment of heart failure 1</b>	1.5	Pharmacology
<b>Treatment of heart failure 2</b>	1.5	Pharmacology
<b>Treatment of heart failure 3</b>	1.5	Pharmacology
<b>Treatment of ischemic heart disease 1</b>	1.5	Pharmacology
<b>Treatment of ischemic heart disease 2</b>	1.5	Pharmacology
<b>Treatment of Hypertension 1</b>	1.5	Pharmacology
<b>Treatment of hypertension2</b>	1.5	Pharmacology
<b>Treatment of arrhythmia 1</b>	1.5	Pharmacology
<b>Treatment of arrhythmia 2</b>	0.75	Pharmacology
<b>Cardiac properties 1 (Excitability of the heart).</b>	1.5	Physiology
<b>Cardiac properties 2 (Rhythmicity of the heart).</b>	1.5	Physiology
<b>Cardiac properties 3 (Conductivity of the heart).</b>	1.5	Physiology
<b>Cardiac properties 4 (Contractility of cardiac muscle)</b>	1.5	Physiology
<b>Cardiac control centers.</b>	1.5	Physiology
<b>Cardiac cycle</b>	1.5	Physiology
<b>Cardiac output</b>	1.5	Physiology
<b>Cardiac work, reserve and energetics.</b>	1.5	Physiology
<b>ECG1</b>	1.5	Physiology
<b>ECG2</b>	1.5	Physiology
<b>ABP 1</b>	1.5	Physiology
<b>ABP 2</b>	0.75	Physiology
<b>Regulation of ABP1</b>	1.5	Physiology
<b>Regulation of ABP2</b>	1.5	Physiology

Capillary circulation	1.5	Physiology
Coronary circulation	1.5	Physiology
Pulmonary circulation	1.5	Physiology
Venous circulation	1.5	Physiology
Cerebral circulation	1.5	Physiology
Hemodynamics 1	1.5	Physiology
Hemodynamics 2	1.5	Physiology
Endocarditis,	1.5	Pathology
Myocarditis	1.5	Pathology
HF	1.5	Pathology
Rheumatic fever.	1.5	Pathology
Thrombosis	1.5	Pathology
Infarction and gangrene	1.5	Pathology
Aneurysm	1.5	Pathology
Vascular Tumors	1.5	Pathology
Atherosclerosis and hypertension	1.5	Pathology
Edema	1.5	Pathology
Shock	0.75	Pathology
<b>Total</b>	<b>90</b>	
<b>Practical</b>		
	<b>Teaching Hours</b>	<b>Department</b>
External features of the heart & pericardium 1.	1.5	Anatomy
External features of the heart & pericardium 2.	1.5	Anatomy
Internal features of the heart 1	1.5	Anatomy
Internal features of the heart 2	1.5	Anatomy
Blood and nerve supply	1.5	Anatomy
Conducting system of the heart.	1.5	Anatomy
Great blood vessels (ascending aorta, arch, descending thoracic aorta, abdominal aorta)	1.5	Anatomy
Common iliac, ext. and internal iliac arteries	1.5	Anatomy
Arteries of lower limb.	1.5	Anatomy
Arteries of upper limb.	1.5	Anatomy
Venous system (superficial & deep) of the body	1.5	Anatomy
Radiological anatomy of the blood vessels	1.5	Anatomy
REVISION	1.5	Anatomy
Cardiac muscle 1	1.5	Histology
Cardiac muscle 2	1.5	Histology
Cardiac muscle 3	1.5	Histology
Vascular system 1	1.5	Histology

<b>Vascular system 2</b>	0.75	Histology
<b>Revision.</b>	1.5	Histology
<b>Experimental 1</b>	1.5	Pharmacology
<b>Experimental 2</b>	1.5	Pharmacology
<b>Diuretics</b>	1.5	Pharmacology
<b>Alternation of urinary PH</b>	1.5	Pharmacology
<b>Treatment of rheumatic fever</b>	1.5	Pharmacology
<b>Heart failure</b>	1.5	Pharmacology
<b>Treatment of ischemic heart disease</b>	1.5	Pharmacology
<b>Treatment of hypertension 1</b>	1.5	Pharmacology
<b>Treatment of hypertension 2</b>	0.75	Pharmacology
<b>Treatment of shock</b>	1.5	Pharmacology
<b>Revision</b>	1.5	Pharmacology
<b>Rheumatic fever</b>	1.5	Pathology
<b>Endocarditis</b>	1.5	Pathology
<b>Pericarditis</b>	1.5	Pathology
<b>Cardiomyopathy (Draw Aschoff nodule)</b>	1.5	Pathology
<b>Thrombosis &amp; embolism</b>	1.5	Pathology
<b>Infarction and gangrene</b>	1.5	Pathology
<b>B.V tumors.</b>	1.5	Pathology
<b>Atherosclerosis &amp; aneurysm 1</b>	1.5	Pathology
<b>Atherosclerosis &amp; aneurysm 2</b>	1.5	Pathology
<b>Edema</b>	1.5	Pathology
<b>Revision</b>	1.5	Pathology
<b>Frog dissection</b>	1.5	Physiology
<b>Recording of the mechanical activity of the frog's heart</b>	1.5	Physiology
<b>Frog dissection &amp; recording of the mechanical activity of the frog's heart</b>	1.5	Physiology
<b>Determination of the pacemaker of the frog's heart.</b>	1.5	Physiology
<b>Demonstration of extrasystole in the frog's heart</b>	1.5	Physiology
<b>Demonstration of impulse conduction (Heart block) in frog.</b>	1.5	Physiology
<b>Auscultation of heart sounds.</b>	1.5	Physiology
<b>Evaluation of auscultation of heart sounds.</b>	1.5	Physiology
<b>Electrocardiograph and Normal ECG 1</b>	1.5	Physiology

Electrocardiograph and Normal ECG 2	1.5	Physiology
Measurement of Heart rate and electrical axis of the heart	1.5	Physiology
Effect of respiration, body posture and exercise on ECG record.	1.5	Physiology
Arterial pulse.	1.5	Physiology
Evaluation of arterial pulse.	1.5	Physiology
Revision 1	1.5	Physiology
Arterial blood pressure measurement	1.5	Physiology
Effect of respiration, body posture and exercise on ABP	1.5	Physiology
Evaluation of blood pressure measurement	1.5	Physiology
Cold pressor effect and Capillary fragility (Hiss test)	1.5	Physiology
Cutaneous vascular reaction to mechanical stimuli & reactive hyperemia	1.5	Physiology
Revision 2	0.75	Physiology
<b>Total</b>	<b>90</b>	

#### **IV- Teaching and learning Methods:**

##### **1. Theoretical Teaching:**

###### **a) Interactive lectures: using**

- Brain storming
- Audiovisual aids through animations and diagrams
- Interaction with the students through questions
- Student engagement with discussion

###### **b) Case Based learning**

##### **2. Practical Teaching: conducted using:**

- Practical sessions

##### **3. Self-directed Learning**

#### **V- 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. Types of Assessment:**

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes a multiple-choice questions, problems-solving exercises and independent learning activities in all subjects. These will be given during tutorial and

practical sessions. The Answers are presented and discussed immediately with you after the assessment. The results will be made available to the students.

- **Summative** This type of assessment is used for judgment or decisions to be made about the students' performance. It serves as:
  1. Verification of achievement for the student satisfying requirement
  2. Motivation of the student to maintain or improve performance
  3. Certification of performance
  4. Grades

#### C- Summative Assessment methods:

Assessment Method	Percentage	Description	Timing
<b>Module Coursework</b>	30%	20% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		10% Participation in the tutorials, TBL, Research.	During the module
<b>Final practical exam</b>	30%	OSPE Exam	At the end of the module
<b>Final Written</b>	40%	It Includes problem-solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the semester

#### D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Written exam.	72	40%
Practical exam.	54	30%
Activities & attitude	54	30%
<b>Total</b>	<b>180</b>	<b>100%</b>

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### E- Grading for by GPA System:

The Percentage	Symbo l	Grade
> 85%	A	Excellent.
75-<85 %	B	Very Good
65 - < 75 %	C	Good.
60 - < 65 %	D	Passed.
< 60 %	F	Failed.
	W	Withdrawn

### VI. List of references and resources:

- *Lecture Notes of Module Departments*
- *References:*

#### Anatomy:

- Gray's Anatomy for Students. 4<sup>th</sup> Edition. By: [Richard Drake](#), [A. Wayne Vogl](#), [Adam W. M. Mitchell](#). Churchill Livingstone; 2020
- Langman's Medical Embryology, 14th Edition. By: T.W. Sadler. Williams and Wilkins; 2018
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- Diagnostic histopathology of tumors, 5<sup>th</sup> Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2020

### Pharmacology:

- Basic and Clinical Pharmacology 16th Edition. By: Todd W. Vanderah. McGraw Hill / Medical, 2023.
- Lippincott's Illustrated Reviews: Pharmacology, 8th edition. By: Karen Whalen, Sarah Lercheffeld and Chris Giordian . Lippincott Williams & Wilkins, 2022.
- Essentials of Medical Pharmacology 8th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2018.

### **VII- 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
5. Labs equipped with microscopes
6. Microscopic slides of demonstration of samples of tissue

### **Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix**

Key Competencies	Module Learning Outcomes	Teaching Methods					Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Skill Lab	Self-directed study	Formative Assessment		Summative Assessment				
							Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x							x		x
4.1	4.1.1 to 4.1.17	x	x			x	x		x		x	x	x
4.5	4.5.1 to 4.5.3	x	x			x	x		x		x	x	x
4.6	4.6.1	x	x			x	x		x		x	x	x
4.7	4.7.1 to 4.7.8	x	x			x	x		x		x	x	x
4.8	4.8.1 to 4.8.22			x				x		x	x		x
5.2	5.2.1, 5.2.2	x	x	x							x		x
6.2	6.2.1, 6.2.2					x	x	x	x	x	x	x	x
6.3	6.3.1					x	x	x	x	x	x	x	x
6.6	6.6.1, 6.6.2					x	x	x	x	x	x	x	x

**Module Coordinator: Dr. Marwa Adel**

**Program Coordinator: Prof. Dr. Zeinab Kasemy**

مدير البرنامج المتميز  
د. زينب قاسمي

# Medical Professionalism

**University:** Menoufia

**Faculty:** Medicine

## A - Administrative Information

**Module Title :** Medical professionalism

**Code :** MED106

**Department offering the Module:** Family medicine department

**Program on which the Module is given:** Menoufia M.B.B. Ch Credit- point Program (5+2)

**Academic year:** First year

**Semester:** II

**Date of specification:** 2023

**Date of approval by departments council:** 2023

**Date of approval by faculty council:** 2023

**Credit points:** 3 credit points.

## B- Professional Information

### I- Aim of the Module:

To raise the awareness about medical professionalism skills offering them an opportunity to practice them in academic and clinical encounters.

### II Learning Outcomes of The Module:

**Competency Area 3: The graduate as a professional.**

Key competency	Module LOs
<b>3.1</b> Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.	3.1.1 Define medical professionalism and identify its components (e.g., values, behaviors, relationships).
	3.1.2 Recall the six main elements of professionalism and their significance in healthcare.
	3.1.3 Explain the concept of accountability in medical practice and its implications for doctors and society.
	3.1.4 Apply the principles of professionalism to hypothetical scenarios, distinguishing between desirable and undesirable behaviors.
	3.1.5 Analyze the consequences of unethical behavior in healthcare, such as the impact of bias or breaches of

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|  | <p>confidentiality on patient trust.</p> <p>3.1.6 Assess the commitments of professional doctors and medical students in terms of their alignment with the principles of medical professionalism.</p> <p>3.1.7 Critique case studies or real-life examples of professionalism violations, proposing strategies for improvement and prevention.</p> <p>3.1.8 Identify domains of medical professionalism</p> <p>3.1.9 Identify definitions, indications of professional boundaries</p> <p>3.1.10 Identify the components of each domains of medical professionalism</p> <p>3.1.11 Determine the definition and importance of power imbalance</p> <p>3.1.12 Differentiate between personal and professional boundaries</p> <p>3.1.13 Demonstrate respect to personal and professional boundaries</p>   |
| <p><b>3.3</b> Respect the different cultural beliefs and values in the community they serve.</p> | <p>3.3.1 Determine definitions of Self-awareness</p> <p>3.3.2 Determine the elements and sources of self-awareness</p> <p>3.3.3 Differentiate between Self-Awareness and Self-Consciousness</p> <p>3.3.4 Differentiate between the levels of consciousness and self-awareness</p> <p>3.3.5 Compare between public and private self-awareness</p> <p>3.3.6 Differentiate between the four quadrants of Johari window model and self-awareness</p> <p>3.3.7 Practice basic skills to identify and improve the self-awareness</p> <p>3.3.8 Practice basic skills to measure self-awareness in medical care</p> <p>3.3.9 Define burnout.</p> <p>3.3.10 Recognize the stages of burnout development.</p> <p>3.3.11 Identify the causes of burnout.</p> <p>3.3.12 Describe diagnosis of burnout.</p> <p>3.3.13 Recall the impact of burnout.</p> <p>3.3.14 Describe treatment strategies of burnout.</p> |

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## Competency Area 5: The graduate as a member of the health team and part of the health care system.

Key competency	Module LOs
<b>5.1</b> Recognize the important role played by other health care professionals in patients' management.	<b>5.1.1</b> Define breaking bad news to the patient <b>5.1.2</b> Identify it's importance on clinical outcome. <b>5.1.3</b> Recognize steps of effective breaking bad news. <b>5.1.4</b> Show positive attitude towards breaking bad news in scientific way. <b>5.1.5</b> Criticize inappropriate breaking bad news to a patient . <b>5.1.6</b> Identify the meaning of goal <b>5.1.7</b> Differentiate the value and component of professionalism <b>5.1.8</b> Apply the steps of goal setting <b>5.1.9</b> Identify template for goal setting <b>5.1.10</b> Differentiate SMART from non-SMART goal <b>5.1.11</b> Create SMART goal <b>5.1.12</b> Define sympathy and empathy <b>5.1.13</b> Differentiate sympathy and empathy.
<b>5.2</b> Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management.	<b>5.2.1</b> Identify the significance of teamwork and collaboration in the medical field. <b>5.2.2</b> Describe the benefits of effective teamwork for patient care, problem-solving, stress management, and professional development. <b>5.2.3</b> Explain the key elements of teamwork in action, including shared goals, clear communication, mutual respect, and trust. <b>5.2.4</b> Recognize the roles within a medical team, such as leader, facilitator, note-taker, timekeeper, and participant. <b>5.2.5</b> Evaluate common challenges faced in medical teamwork, such as busy schedules, diverse personalities, individual egos, and traditional hospital practices, and propose strategies to overcome them.
<b>5.7</b> Recognize own personal and professional limits, and seek help from colleagues and supervisors when necessary.	<b>5.7.1</b> Recognize effects of stress on physicians and patients <b>5.7.2</b> Identify elements, signs and management of stress <b>5.7.3</b> Describe the meaning and importance of time management <b>5.7.4</b> Determine strategies of time management <b>5.7.5</b> Define work life balance, recognize its

importance  
**5.7.6** Identify challenges facing physicians

**III- Module Contents:**

week	Title	Teachinghours
1	Introduction to medical professionalism	2
2	Introduction to medical professionalism	1.5
3	Breaking bad news	2
4	Breaking bad news	1.5
5	Self-awareness	2
6	Self-awareness	2
7	How to set a goal 1	2
8	How to set a goal 2	1.5
9	Teamwork and collaboration	2
10	Teamwork and collaboration	2
11	Sympathy and empathy	2
12	Sympathy and empathy	2
13	Professional boundaries	1.5
14	Professional boundaries	1.5
15	Burnout 1	2
16	Burnout 2	1.5
17	Stress management	1.5
18	Stress management	2
19	Time management	1.5
20	Time management	1.5
21	Work-life balance	2
22	Work-life balance	2
23	Revision	2
24	Activity (virtual jigsaw)	1.5
25	Revision	2

Total hours	45 hour
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#### IV– Teaching and learning methods:

- Lectures for acquisition of knowledge: once two hours /week for using audiovisual aids and interaction and online lectures.
- Power Point Presentations: at lectures.

#### V- Student Assessment:

##### A. Summative Assessment methods:

- **70% final written exam at the end of the semester:** Include problem-solving, multiple-choice questions and short answer questions.
- **30% Module Coursework** of activities and end module exam.

##### B. Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	31.5	70%
Activities	4.5	10%
End module	9	20%
Total	45	100%

#### VI. List of references and resources:

- Lecture notes
- Essential Books:
  - Professionalism in Medicine: A Case-Based Guide for Medical Students (Cambridge Medicine) 1st Edition. By: John Spandorfer, Charles A. Pohl, Susan L. Rattner, Thomas J. Nasca. Cambridge University Press, 2009.
  - Understanding Medical Professionalism, 1st Edition. By: American Board of Internal Medicine Foundation, Wendy Levinson, Shiphra Ginsburg, Fred Hafferty, Catherine R. Lucey. McGraw Hill / Medical, 2014.

#### VII- Facilities required for teaching and learning:

- Lectures hall
- Audiovisual aids at the lecture halls

Module Coordinator: Dr Enshad Elsayed

Program Coordinator: Prof. Dr. Zeinab Kasemy

مدير البرنامج المتميز  
أ.د. زينب قاسمي



## توصيف مقرر القضايا المجتمعية

البرنامج الذي يتبعه المقرر: جميع البرامج الدراسية بالجامعة

أ معلومات أساسية :

اسم المقرر: القضايا المجتمعية	الرمز الكودي:	جميع البرامج الدراسية بالجامعة.
الساعات الدراسية	1 نظري	- تمارين 1 إجمالي

<p>1-أهداف المقرر</p> <p>بدراسة هذا المقرر يتوقع أن يكون الطالب قادراً على :الوعي بمجموعة من القضايا المجتمعية الملحة وأهمها الزيادة السكانية والصحة الإنجابية ، حقوق الانسان ، الشفافية ومكافحة الفساد، التربية الاعلامية ، و التنمية المستدامة و التمييز بين المصطلحات الأكثر شيوعاً في كل قضية ، ومن ثم يمكنه تكوين عادات سلوكية إيجابية ، فضلاً عن تعزيز مفهوم المشاركة المجتمعية لديه ، و تثقيفه بالأخطار التي تحيط بالمجتمع المحلي والإقليمي والعالمي .كما يتيح المقرر ربط الجانب الأكاديمي الذي يدرسه الطالب بمتطلبات واحتياجات مجتمعية بما يساهم في تدريب الطلاب على التعلم الذاتي الذي ينمي القدرة على التعلم مدى الحياة و تنمية الجوانب الوجدانية عند الطلاب، تطوير المحتوى العلمي للمقرر ، ودعم بناء منظومة القيم عند الطلاب.</p>	
<p>2-المخرجات التعليمية المستهدفة من تدريس المقرر:</p>	
<ol style="list-style-type: none"> <li>1. يعرف الزيادة السكانية</li> <li>2. يحدد أبعاد المشكلة السكانية في مصر.</li> <li>3. يشرح المشكلات المترتبة على الزيادة السكانية</li> <li>4. يعرف الصحة الإنجابية</li> <li>5. يحدد خدمات ووسائل تنظيم الأسرة.</li> <li>6. يعرف حقوق الإنسان</li> <li>7. يذكر مصادر حقوق الإنسان</li> <li>8. يعدد خصائص حقوق الإنسان</li> <li>9. يصنف أنواع حقوق الإنسان</li> <li>10. يعرف الشفافية</li> <li>11. يعرف النزاهة</li> <li>12. يعرف الفساد</li> <li>13. يذكر أنواع الفساد</li> <li>14. يحدد وسائل مكافحة الفساد.</li> <li>15. يعرف التربية الإعلامية</li> <li>16. يذكر أهداف التربية الإعلامية.</li> <li>17. يعدد المبادئ الأساسية للتنمية المستدامة.</li> <li>18. يذكر المجالات المستهدفة بالتنمية المستدامة</li> <li>19. يعرف التنمية المستدامة</li> <li>20. يذكر أهداف التنمية المستدامة</li> <li>21. التمييز بين أنماط الاستدامة.</li> <li>22. يذكر تحديات التنمية المستدامة.</li> <li>23. يعدد متطلبات التنمية المستدامة.</li> </ol>	<p>أ-المعلومات والمفاهيم</p>

<ol style="list-style-type: none"> <li>1. يميز بين الفئات التي تستهدفها خدمات الصحة الإنجابية.</li> <li>2. يفرق بين وسائل الصحة الإنجابية</li> <li>3. يميز بين مصادر حقوق الإنسان</li> <li>4. يفرق بين أنواع حقوق الإنسان</li> <li>5. يناقش المبررات التي تدعو إلى التأكيد على حقوق الإنسان</li> <li>6. يميز بين الشفافية و النزاهة و الفساد.</li> <li>7. يفرق بين أنواع الفساد</li> <li>8. يقارن بين وسائل مكافحة الفساد.</li> <li>9. يميز بين المبادئ الأساسية للتنمية المستدامة.</li> <li>10. يقارن بين التفكير التحليلي والنقدي في منهج التربية الإعلامية.</li> <li>11. يربط بين الشائعات والوعي بالمواجهة وفق منهج التربية الإعلامية.</li> <li>12. يستنتج العلاقة بين حروب الجيل الرابع والتربية الإعلامية</li> <li>13. يربط بين الوعي بأهمية التنمية المستدامة ونجاحه في عمله</li> <li>14. يفرق بين أبعاد التنمية المستدامة.</li> </ol>	<p>ب-المهارات الذهنية</p>
<ol style="list-style-type: none"> <li>1. يمارس المهارات المكتسبة من دراسة التربية الإعلامية.</li> <li>2. يقترح بدائل للتنمية المستدامة</li> <li>3. يعد تقريراً عن أحد القضايا المجتمعية .</li> </ol>	<p>ج-المهارات المهنية</p>
<p>الفصل الأول: المشكلات المترتبة على الزيادة السكانية وأثرها على الصحة الإنجابية</p> <p>أولاً: أبعاد المشكلة السكانية في مصر.</p> <p>ثانياً: المشكلات المترتبة على الزيادة السكانية ثالثاً: مفهوم الصحة الإنجابية</p> <p>رابعاً: الفئات التي تستهدفها خدمات الصحة الإنجابية</p> <p>خامساً: خدمات ووسائل تنظيم الأسرة.</p> <p>سادساً: وسائل الصحة الإنجابية</p> <p>أنشطة الفصل الأول</p> <p>أسئلة وإجابات الفصل الأول.</p> <p>الفصل الثاني: حقوق الإنسان</p> <p>أولاً: تعريف حقوق الإنسان.</p> <p>ثانياً: خصائص حقوق الإنسان</p> <p>ثالثاً: مصادر حقوق الإنسان</p> <p>رابعاً: أنواع حقوق الإنسان.</p> <p>أنشطة الفصل الثاني</p> <p>أسئلة وإجابات الفصل الثاني .</p> <p>الفصل الثالث: الشفافية ومكافحة الفساد</p>	<p>3-محتوى المقرر</p>

## مقدمة

أولاً: الشفافية والنزاهة

ثانياً: الفساد

ثالثاً: أنواع الفساد. الفصل الثالث: الشفافية ومكافحة الفساد

رابعاً: وسائل مكافحة الفساد

أنشطة الفصل الثالث

أسئلة وإجابات الفصل الثالث

الفصل الرابع: التربية الإعلامية الرقمية

أولاً: مفهوم التربية الإعلامية

ثانياً: المهارات المكتسبة من التربية الإعلامية

ثالثاً: أهداف التربية الإعلامية.

الفصل الرابع: التربية الإعلامية الرقمية

رابعاً: التفكير التحليلي في منهج التربية الإعلامية

خامساً: التفكير النقدي في منهج التربية الإعلامية

سادساً: الاعلام الرقمي والتربية الإعلامية.

الفصل الرابع: التربية الإعلامية الرقمية

سابعاً: حروب الجيل الرابع والتربية الإعلامية

ثامناً: الشائعات والوعي بالمواجهة وفق منهج التربية الإعلامية

أنشطة الفصل الرابع.

أسئلة وإجابات الفصل الرابع

الفصل الخامس التنمية المستدامة

## مقدمة

أولاً: أهداف التنمية المستدامة

ثانياً: أهمية التنمية المستدامة

ثالثاً: المبادئ الأساسية للتنمية المستدامة.

رابعاً: أبعاد التنمية المستدامة

خامساً: المجالات المستهدفة بالتنمية المستدامة

سادساً: مكونات وأنماط الاستدامة سابعاً: تحديات التنمية المستدامة. ثامناً: متطلبات التنمية المستدامة. أنشطة الفصل الخامس	
4. أسئلة وإجابات الفصل الخامس.	4-أساليب التدريس والتعلم
أ-المحاضرات ب-المناقشات. ج-الفيديوهات التعليمية	5- أساليب التدريس والتعلم للطلاب ذوى القدرات المحدودة
<ul style="list-style-type: none"> <li>محاضرات إضافية</li> <li>إتاحة فرصة أوسع للنقاش أثناء الساعات المكتبية</li> <li>أنشطة إثرائية</li> </ul>	
6-تقييم الطلاب	
1) الأنشطة التعليمية البحثية 2) اختبار منتصف الفصل الدراسي 3) اختبار قصير مع نهاية كل قضية 4) اختبار نظري في نهاية الفصل الدراسي.	1- الأساليب المستخدمة
نظري 15 ساعة (1X15)	ب-التوقيت
أعمال السنة: 25 % من الدرجة. المقرر من: 20 درجة	ج- توزيع الدرجات
7-قائمة الكتب الدراسية والمراجع	
أ-مذكرات	الكتاب الإلكتروني المعد تحت إشراف الجامعة
ب-كتب ملزمة	لا يوجد
ج-كتب مقترحة	
د-دوريات علمية أو نشرات	لا يوجد

<b>Module Coordinator: Dr. Enas ElShetihy</b>	<b>Program Coordinator: Prof. Dr. Zeinab Kasemy</b>
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