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

The Private Program

MODULE SPECIFICATION
FOR THE PRIVATE PROGRAM

لجنة المعايير الاكاديمية و التوصيف بالبرنامج	منسق البرنامج	عميد الكلية
د. أحمد حمدان	أ.د زينب عبدالعزيز قاسمي	أ.د/ محمد فهمي النعماني

Semester I

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: 1st 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"			

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
3.1	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
4.1	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 acrossthe 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 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.	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 andproteins.

		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 andcontraction. 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 andbody fluids volumes. 4.8.21 Apply Fick's principle in different dye-based dilution techniques. 4.8.22 Plot data charts to clarify different physiological or pathophysiological states. 4.8.23 Deal with laboratory reagents and instruments used in biochemistrylaboratory. 4.8.24 Identify the physical and chemical properties of carbohydrates andproteins 4.8.25 Perform chemical reactions to identify different types ofcarbohydrates and active groups of proteins. 4.8.26 Demonstrate respect to the role of staff and co-staff members regardless of degree oroccupation. 4.8.27 Communicate effectively and respectively 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 effec-tive 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
6.2	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
6.3	Identify opportunities and use various resources for learning.	6.3.1 Use information resources whether written or electronic efficiently for the educational process.
6.6	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 monosaccharaides	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
Total	**60**	
Practical		
Practical	Teaching Hours	**Department**
Organization of the body systems, regional terms, parts of the abdomen, body cavities, and serous sacs.	1.5	Anatomy
Terms of movement	1.5	Anatomy
Skin, fascia, muscle.	1.5	Anatomy
Bony skeleton, classification of bones according to site & shape, parts of long bone.	1.5	Anatomy
Clavicle, scapula	1.5	Anatomy
Humerus, Radius.	1.5	Anatomy
Ulna, Hand	1.5	Anatomy
Revision of upper limb bones & radiology	1.5	Anatomy
Hip bone.	1.5	Anatomy
Femur, Tibia	1.5	Anatomy
Fibula, foot	1.5	Anatomy
Revision of lower limb bones & radiology	1.5	Anatomy
Lymphatic, endocrine systems	1.5	Anatomy
Revision	1.5	Anatomy
1st week changes	1.5	Anatomy
2nd-week changes	1.5	Anatomy
3RD WEEK CHANGES	1.5	Anatomy
4th week changes	1.5	Anatomy
Fetal membranes	1.5	Anatomy
Revision	1.5	Anatomy
Microtechniques & staining	1.5	Histology
Membranous organelles Part I	1.5	Histology

Non membranous organelles	1.5	Histology
Non membranous organelles	1.5	Histology
Inclusion, Nucleus & nucleolus	1.5	Histology
Cell division	1.5	Histology
Epithelium part I	1.5	Histology
Epithelium part II	1.5	Histology
Connective tissue	1.5	Histology
REVISION	1.5	Histology
PH meter and how to measure PH 1	1.5	Biochemistry
PH meter and how to measure PH 2	1.5	Biochemistry
ABG	1.5	Biochemistry
ABG interpretation	1.5	Biochemistry
carbohydrate scheme (Lab precautions, molish test, iodine test)	1.5	Biochemistry
carbohydrate scheme (fehling, bendict and barfoed tests)	1.5	Biochemistry
carbohydrate scheme (ketose and seliwanoff tests)	1.5	Biochemistry
protein scheme (Biuret test)	1.5	Biochemistry
protein scheme (heat coagulation, heller and acidification tests)	1.5	Biochemistry
Revision on carbohydrate and protein scheme	1.5	Biochemistry
Revision on Carbohydrate and protein scheme	1.5	Biochemistry
Practical exam	1.5	Biochemistry
Practical exam	1.5	Biochemistry
Enzyme curves	1.5	Biochemistry
DNA extraction 1	1.5	Biochemistry
DNA extraction 2	1.5	Biochemistry
PCR	1.5	Biochemistry
Cloning	1.5	Biochemistry
Gel electrophoresis	1.5	Biochemistry
Revision	1.5	Biochemistry
Estimation of plasma volume	1.5	Physiology
Determination of Hematocrit value	1.5	Physiology
Homeostasis	1.5	Physiology
Osmosis	1.5	Physiology
Osmotic fragility.	1.5	Physiology
Revision	1.5	Physiology

Autonomic nervous system	1.5	Physiology
Disorders of the autonomic nervous system	1.5	Physiology
REVISION	1.5	Physiology
REVISION	1.5	Physiology
Total	**60**	

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 toreach 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 includingproblem 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
Final Written	40%	It Includes problem-solving, multiple choice questions, giveæason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Written exam.	**72**	**40%**
Final Practical exam.	**54**	**30%**
Activities	**54**	**30%**
Total	**180**	**100%**

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:**

Anatomy:

- Gray's Anatomy for Students. 4th 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.

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

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
						Formative Assessment		Summative Assessment				
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	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**

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.**
Total	**78.75 h.**	**78.75 h.**	**31.5 h**
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
3.1 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 3.3.1 Demonstrate commitment and integrity while preparing the coursework and assignments

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

Key competency	Module LOs
4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and	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. 4.5.2 Define bacterial endospores and recognize their medical importance and outline the essential requirements for bacterial survival and replication.

explain the ways in which they operate on the body (pathogenesis).	4.5.3 Define pathogen virulence factors and outline ideal antimicrobial agents and their complications. 4.5.4 Identify bacterial genome and describe bacteriophage structure and differentiate between its types 4.5.5 Describe plasmids, their function and classify them. 4.5.6 Classify Gram-positive & -negative cocci. Describe morphology and culture characters. Enumerate the virulence factors. List the diseases caused by them. Formulate proper management plan. 4.5.7 Classify Gram-positive bacilli. Describe morphology and culture characters. Enumerate the 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.
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 accordingto standard taxonomy
4.5.29 Integrate basic information about life cycles, clinical picture andcomplications 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 respecttime factor and dates.
4.5.35 Demontrate 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.
		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	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	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'saccepted 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 importantarthropods 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.
4.8.18	Demontrate honesty and integrity in all relations withteaching staff , colleagues and laboratory technicians.

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

	Module LOs	
5.2	Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared re-sponsibilities 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
6.2	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
6.3	Identify opportunities and use various resources for learning.	6.3.1 Use information resources whether written or electronic efficiently for the educational process.
6.6	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
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 (α blockers)	1.5	Pharmacology
Sympatholytic (β 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
Disturbance of growth	1.5	Pathology
Neoplasia 1	1.5	Pathology
Neoplasia 2	1.5	Pathology
Neoplasia 3	1.5	Pathology
Revision	0.75	Pathology
Total	**78.75**	
Practical		
	Teaching Hours	**Department**
Microscopes	1.5	Microbiology
Staining techniques	1.5	Microbiology
Sterilization and hand hygiene	1.5	Microbiology
Culture media 1	1.5	Microbiology
Culture media 2	1.5	Microbiology
Cultural characters	1.5	Microbiology
Gram positive cocci	1.5	Microbiology
Gram negative cocci	1.5	Microbiology
Gram positive bacilli	1.5	Microbiology
Gram negative bacilli	1.5	Microbiology
Revision 1	1.5	Microbiology
Enterobacteriaceae	1.5	Microbiology
Virology 1	1.5	Microbiology
Virology 2	1.5	Microbiology
Mycology1	1.5	Microbiology
Mycology2	1.5	Microbiology
Revision 2	1.5	Microbiology
Categories and sources of drugs	1.5	Pharmacology
Dosage forms of the drugs (part 1)	1.5	Pharmacology
Dosage forms of the drugs (part 2)	1.5	Pharmacology
Routes of drug administration (part 1)	1.5	Pharmacology
Routes of drug administration (part 2)	1.5	Pharmacology
Prescription Writing	1.5	Pharmacology

Drug Dosage calculations	1.5	Pharmacology
Drug Dosage calculations	1.5	Pharmacology
Dose-response curve relationship	1.5	Pharmacology
Experimental Pharmacology	1.5	Pharmacology
Experimental Pharmacology	1.5	Pharmacology
Experimental Pharmacology	1.5	Pharmacology
Revision	1.5	Pharmacology
General parasitology 1	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 (scapies, 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
Total	**78.75**	

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:

A. Attendance criteria:

The minimum acceptable attendance is 75%, otherwise students failing toreach 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 includingproblem 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 Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, giveæason,	At the end of the semester

	matching, extended matching, complete and compare.

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Written exam.	**63**	**40%**
Final Practical exam.	**47.25**	**30%**
Activities	**47.25**	**30%**
Total	**157.5**	**100%**

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, 5th 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 Lerchefield 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, 17th 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 4th 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. 10th Edition. By: Larry Roberts, John Janovy, Steven Adler. McGraw-Hill Education, 2015.
- Paniker's Textbook of Medical Parasitology, 9th 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						
						Formative Assessment		Summative Assessment				
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	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**

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
3.1	Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.	3.1.1 Exhibits a courteous and competent image of themselves. 3.1.2 Exhibit honesty, integrity, dedication, compassion, and respect when interacting with a patient, 3.1.3 complete clinical, administrative, and curriculum activities on time. 3.1.4 Assume proper attire and conduct.

		3.1.5	Continue to have proper professional interactions with staff, families, and patients.
3.3	Respect the different cultural beliefs and values in the community they serve.	3.3.1 3.3.2 3.3.3	Recognize the importance of cultural diversity. Show consideration for the variety of the community as it is shown in the case vignettes. Act in a way that shows constructive regard for the many cultural values and beliefs of the community
3.9	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 3.9.2 3.9.3 3.9.4	Explain immoral actions that could jeopardise patient safety. Defines the proper channels for reporting dishonest or immoral behaviour. Indicates when to report inappropriate, unethical, or unprofessional behaviour in role-played or presented films. 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	
5.1	Recognize the important role played by other health care professionals in patients' management.	5.1.1 5.1.2 5.1.3 5.1.4 5.1.5	Describe the function of the health care team in managing patients. Define the health care team. Practice working as a team in role plays tailored to various clinical scenarios. Work together with other members of the healthcare team Demonstrate respect to other healthcare professionals.
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.	5.2.1 5.2.2 5.2.3	Specify the roles that the health care team shares and overlaps in order to manage patients effectively. Define each member of the health care team's role in the decision-making process. 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.
5.3	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 ghours
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**
15	Revision	**1.5**
	TOTAL	**22.5**

IV– Teaching and learning methods:

- Lectures for acquisition of knowledge: Two large groups, eachgroup 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 toreach 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
Final written exam.	**15.75**	**70%**
Activities	**2.25**	**10%**

End Module	**4.5**	**20 %**
Total	**22.5**	**100%**

VI. List of references and resources:

- **Lecture notes**
- **Essential Books:**

- Communication Skills for Medicine 3rd Edition. By: Margaret Lloyd, Robert Bor MA. Churchill Livingston, 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

Module Coordinator: Dr. Dina Mostafa	**Program Coordinator: Prof. Dr. Zeinab Kasemy**

مدخل الجودة والاعتماد في مؤسسات التعليم العالي

الجامعة :المنوفية **الكلية :الطب**

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 والإعتماد و دور القيادات الأكاديمية والطلاب في تحقيق ذلك**

المستهدف من تدريس المقرر

أ- **المعلومات و المفاهيم:**

1- يوضح المفاهيم والمصطلحات الصادرة عن الهيئة القومية لضمان جودة التعليم
2- يبين الأصول التاريخية للجودة في التعليم الجامعي
3- يميز عناصر جودة التعليم

4- يلخص خطوات تطور الجودة والإعتماد بجمهورية مصرالعربية
5- يناقش دور الهيئة القومية لضمان جودة التعليم
6- يرتب خطوات إعتماد مؤسسة تعليمية
7- يوضح معايير إعتماد مؤسسات التعليم العالي بمصر
8- يفسر مؤشرات معايير الإعتماد

ب- المهارات الذهنية:
1- يقارن بين أنواع الإعتماد
2- يستنتج دور الطالب في تحقيق معايير الإعتماد
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 الإعتماد

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**

Semester II

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: 1st 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**
Total	**90**	**90**	**36**
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.

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.	3.1.2 Demonstrate a professional. respectful attitude while dealing with colleagues, and staff members 3.3.2 Demonstrate commitment and integrity while preparing the coursework and assignments

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

Key competency	Module LOs

4.1	Describe the normal structure of the body and its major organ systems and explain their functions.	4.1.1 Recognize the normal development of limb and its congenital anomalies. 4.1.2 Identify the component of cartilage, bone and extracellular matrix. 4.1.3 Describe the structure of the cartilage. 4.1.4 Describe the structure of different types of bone tissue. 4.1.5 Describe anatomy of joint in upper limb, thorax and abdomen. 4.1.6 Recognize the deformity associated with different bone fractures. 4.1.7 Clarify the structural characteristics of two basic tissue types (Muscular and nervous). 4.1.8 Describe anatomy of muscles and inter-muscular spaces of the lower limb, vertebral column, head and neck. 4.1.9 Describe the anatomy of different joints in the lower limb, vertebral column. 4.1.10 Identify the course, important relations, distribution and effect of injury of lumber, sacral plexuses and each peripheral nerve in the lower limb, head, and neck and effects of their injury. 4.1.11 Determine the normal development of the vertebral column and its congenital anomalies. 4.1.12 Identify the histological structure of skeletal muscles. 4.1.13 Describe the anatomy of muscles in the upper limb, anterior thoracic wall, anterior abdominal wall and posterior abdominal wall. 4.1.14 Identify the role of different muscles (of the upper limb, thorax and abdomen) in movement. 4.1.15 Describe the anatomy of the joint in the upper limb, thorax and abdomen. 4.1.16 Identify the component of the peripheral nervous system. 4.1.17 Identify the course, important relations, and distribution of each peripheral nerve in the upper limb.

		4.1.18 Describe the potential difference between both sides of the skeletal muscle membrane and the determinant of it. 4.1.19 Identify phases and mechanism of action potential 4.1.20 Describe the mechanisms of skeletal and smooth muscle contraction 4.1.21 List factors affecting skeletal and smooth muscle contraction. 4.1.22 Illustrate the structure of muscles. 4.1.23 Illustrate structure of peripheral nerve. 4.1.24 Discuss the action of different muscles in upper limb, thoracic wall and abdominal walls. 4.1.25 Differentiate the nerve supply of different muscles. 4.1.26 Distinguish between an isometric and isotonic contraction. 4.1.27 Discriminate smooth muscle contraction from skeletal muscle contraction 4.1.28 Relate the nerve and vessels to the bone. 4.1.29 Apply the principles of continuous medical education (CME). 4.1.30 Use the internet and learn searching skills.
4.2	Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	4.2.1 Illustrate the biochemical composition of connective tissue, muscles, bone, collagen, and extracellular matrix. 4.2.2 Explain the role of calcium, phosphorus and magnesium in bone mineralization. 4.2.3 Identify sources and fate of energy needed for muscle contraction. 4.2.4 Correlate the equilibrium potential of ions to Resting membrane potential and action potential. 4.2.5 Explain the mechanism of impulse transmission in excitable membranes and at the neuromuscular junction. 4.2.6 Establish a concise activity according to standard scientific thinking and integrity.

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 Report diseases related to defective calcium, phosphorus metabolism and collagen synthesis. 4.5.2 Describe diseases related to defects in collagen syntheses, muscles, and bone. 4.5.3 Effectively manage time and resources and set priorities. 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. 4.5.5 Recognize the features (demographic, radiologic, and pathological) of most common benign, locally malignant, and malignant bone tumors. 4.5.6 Recognize the general basis of osteopenic diseases including rickets, osteomalacia and osteoporosis. 4.5.7 Identify the pathogenesis of most common inflammatory diseases affecting musculoskeletal system (Bone, muscles and joints).
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. Recognize the effect of peripheral nerve injuries in the movements (deformity) and sensation of the upper limb. 1.6.2 Evaluate his own and others' work through construction feedback. 1.6.3 Solve problems through case studies of certain musculoskeletal system diseases.

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.	1.8.1 Interpret symptoms, signs, and biochemical laboratory findings of some mineral and nutritional deficiency diseases. 1.8.2 Apply the method to test the joint function. 1.8.3 Apply the method to test the nerve injury. 1.8.4 Draw and label the structures they have seen under a light microscope showing bone tissue during practical classes. 1.8.5 Examine and identify microscopic slides of bone tissue 1.8.6 Recognize biochemical instruments used to measure blood calcium, phosphorus and magnesium. 1.8.7 Practice measurement of serum protein and creatinine. 1.8.8 Interpret the results variation of calcium, phosphorus and magnesium and their relation to different diseases 1.8.9 Identify dissected structures of the upper limb, thorax and abdomen, according to the present relations. 1.8.10 Distinguish the consistency of arteries, veins & nerves. 1.8.11 Draw diagrams showing the courses and distribution of nerves and main blood vessels in the upper limb. 1.8.12 Draw and label the structures they have seen under a light microscope showing muscular and nervous tissue during practical classes. 1.8.13 Examine and identify microscopic slides of muscular and nervous tissue 1.8.14 Differentiate between types of different musculoskeletal tissues and organs in histological slides. 1.8.15 Sketch simple muscle twitch and explain the cause of each phase. 1.8.16 Communicate effectively and respectfully with staff members. 1.8.17 Manage time efficiently and work in a group.

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 re-sponsibilities 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
6.2	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
6.3	Identify opportunities and use various resources for learning.	6.3.2 Use information resources whether written or electronic efficiently for the educational process.
6.6	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
Muscles of the anterior compartment of the forearm	1.5	Anatomy

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

Vitamins 2	1.5	Biochemistry
Minerals 1	1.5	Biochemistry
Minerals 2	1.5	Biochemistry
Bone mineralization 1	1.5	Biochemistry
Bone mineralization 2	1.5	Biochemistry
Extracellular matrix 1	1.5	Biochemistry
Extracellular matrix 2	1.5	Biochemistry
Purine and pyrimidine 1	1.5	Biochemistry
Purine and pyrimidine 2	1.5	Biochemistry
Membrane & Action potential	1.5	Physiology
Neuromuscular transmission	1.5	Physiology
Excitation contraction coupling	1.5	Physiology
Factors affecting Muscle contraction	1.5	Physiology
Physiology of smooth muscle	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	1.5	Pathology
Miscellaneous Benign and Malignant Tumors 2	1.5	Pathology
Total	**90**	
Practical		
Practical	Teaching Hours	**Department**
Bone of upper limb (Clavicle, scapula and humerus)	1.5	Anatomy
Radiology	1.5	Anatomy
Muscles of pectoral region + back	1.5	Anatomy
Scapular region and axilla	1.5	Anatomy
Radius, ulna and hand	1.5	Anatomy
Muscles of the arm+ cubital fossa	1.5	Anatomy
Muscles of the front of forearm	1.5	Anatomy
Muscles of back of forearm 1	1.5	Anatomy
Muscles of back of forearm 2	1.5	Anatomy
Revision	1.5	Anatomy
Bone of lower limb (1) -	1.5	Anatomy
Front and Medial Sides of the Thigh and Femoral Triangle	1.5	Anatomy
Gluteal region and Back of thigh	1.5	Anatomy

Bone 2	1.5	Anatomy
Anterior compartment of the Leg	1.5	Anatomy
Lateral and dorsum of the foot	1.5	Anatomy
Posterior compartment of the Leg.	1.5	Anatomy
Revision	1.5	Anatomy
Vertebrae, ribs and sternum	1.5	Anatomy
Thoracic cage	1.5	Anatomy
Anterior abdominal wall	1.5	Anatomy
Posterior abdominal wall	1.5	Anatomy
Skull and mandible	1.5	Anatomy
Scalp and face	1.5	Anatomy
Neck triangles and suprahyoid muscles	1.5	Anatomy
Infrahyoid muscles& Thyroid gland	1.5	Anatomy
Muscles of mastication &Cervical lymph nodes	1.5	Anatomy
Revision	1.5	Anatomy
Final revision.	1.5	Anatomy
Final revision.	1.5	Anatomy
Practical muscle 1	1.5	Histology
Practical muscle 2	1.5	Histology
Practical cartilage 1	1.5	Histology
Practical cartilage 2	1.5	Histology
Practical bone	1.5	Histology
Practical bone 2	1.5	Histology
Revision	1.5	Histology
Practical nervous	1.5	Histology
Practical nervous	1.5	Histology
Revision	1.5	Histology
Lab precautions	1.5	Biochemistry
Specimen collection	1.5	Biochemistry
Normal and abnormal constituents of the urine	1.5	Biochemistry
Normal and abnormal constituents of the urine	1.5	Biochemistry
Normal and abnormal constituents of the urine	1.5	Biochemistry
Instruments	1.5	Biochemistry
Measurement of serum Creatinine	1.5	Biochemistry
Measurement of uric acid	1.5	Biochemistry
Results interpretation	1.5	Biochemistry

Revision	1.5	Biochemistry
Simple muscle twitch	1.5	Physiology
Simple muscle twitch	1.5	Physiology
Factors Affecting Skeletal Muscle Contraction	1.5	Physiology
Effect of changing frequency of stimulation on muscle contraction	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
Total	**90**	

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 toreach 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 includingproblem 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 Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, giveæason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

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

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. 4th 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, 5th 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	Case Based	Practical	Self-directed	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:	**Program Coordinator:**
Name: **Dr. Sara Gamal Abdelkawy**	**Name: Prof. Dr. Zeinab Kasemy**

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"

- 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.

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. List drugs that are used to treat chronic heart failure, hypertension, angina& arrhythmia. 4.7.2. Discuss the beneficial effects of beta blockers & 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& the choices of different antiarrhythmic drugs in various types of arrhythmias. 4.7.3. Explain the mechanism of action of drugs used in heart failure and hypertension 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& main antiarrhythmic drugs. 4.7.5. Explain the adverse effects of sympathomimetic, beta and alpha blockers. 4.7.6. Outline different types of beta blockers and select the appropriate drug for different disease states 4.7.7. Discuss the choices of different antiarrhythmic drugs in various types of arrhythmias. 4.7.8. Explain how the increase in intracellular sodium & calcium are responsible for both the beneficial effects of digoxin on myocardial contractility as well as for its electrophysiological & arrhythmogenic effects, the main difference between ACEis and ARBs and why they are preferred in diabetics and in patient with nephropathy.

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. 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. 4.8.2. Integrate basic anatomical, histopathological, and physiological aspects of heart & blood vessels with clinical data. 4.8.3. Expect the outcome of disturbed function. 4.8.4. Solve problems through case study 4.8.5. Interpret the results of practical lab. 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 4.8.7. Draw, in correct temporal relationship, the pressure, volume, heart sound, and ECG changes in the cardiac cycle 4.8.8. Practice basic practical skills and competencies essential for future medical practice. 4.8.9. Demonstration of the external and internal features of the heart chambers, blood vessels of the heart, related vessels to the heart & vessels of upper &lower limbs 4.8.10. Use the microscope efficiently to obtain information from histological slides 4.8.11. Examine the histological glass slides & differentiate between types of cells and tissues in histological slides. 4.8.12. Draw and label the structures they have seen in electron photomicrographs and under light microscope during practical classes. 4.8.13. Perform the measurement of arterial blood pressure. 4.8.14. Manipulate a stethoscope for hearing heart and respiratory sounds. 4.8.15. Record and read an electrocardiogram. 4.8.16. Present physiological scientific data in a graphical form. 4.8.17. Comment on some clinical parameters such as: ABP, ECG for a normal individual. 4.8.18. Recognize gross and microscopic pictures aiming at reaching the correct diagnosis. 4.8.19. Identify an unknown drug by its effect on different types of heart receptors 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 & the different methods of prevention of recurrent rheumatic fever 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
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.	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
6.2 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
6.3 Identify opportunities and use various resources for learning.	6.3.2 Use information resources whether written or electronic efficiently for the educational process.
6.6 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
Great blood vessels (Abdominopelvic arteries: (abdominal aorta, common iliac, ext. and internal iliac arteries)	1.5	Anatomy
Arteries of lower limb.	1.5	Anatomy
Carotid & subclavian system (1).	1.5	Anatomy
Carotid & subclavian system (2).	1.5	Anatomy
Arteries of the upper limb.	1.5	Anatomy
Venous system (deep) of the body.	1.5	Anatomy
Venous system (superficial) of the body.	1.5	Anatomy
Development of the CVS.	1.5	Anatomy
Cardiac muscle 1	1.5	Histology
Cardiac muscle 2	1.5	Histology
Vascular system1	1.5	Histology
Vascular system2	1.5	Histology
Vascular system3	1.5	Histology
Revision	0.75	Histology
Diuretics1	1.5	Pharmacology
Diuretics 2	1.5	Pharmacology
Treatment of heart failure 1	1.5	Pharmacology
Treatment of heart failure 2	1.5	Pharmacology
Treatment of heart failure 3	1.5	Pharmacology
Treatment of ischemic heart disease 1	1.5	Pharmacology
Treatment of ischemic heart disease 2	1.5	Pharmacology
Treatment of Hypertension 1	1.5	Pharmacology
Treatment of hypertension2	1.5	Pharmacology
Treatment of arrhythmia 1	1.5	Pharmacology
Treatment of arrhythmia 2	0.75	Pharmacology
Cardiac properties 1 (Excitability of the heart).	1.5	Physiology
Cardiac properties 2 (Rhythmicity of the heart).	1.5	Physiology
Cardiac properties 3 (Conductivity of the heart).	1.5	Physiology
Cardiac properties 4 (Contractility of cardiac muscle)	1.5	Physiology
Cardiac control centers.	1.5	Physiology

Cardiac cycle	1.5	Physiology
Cardiac output	1.5	Physiology
Cardiac work, reserve and energetics.	1.5	Physiology
ECG1	1.5	Physiology
ECG2	1.5	Physiology
ABP 1	1.5	Physiology
ABP 2	0.75	Physiology
Regulation of ABP1	1.5	Physiology
Regulation of ABP2	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
Total	90	
Practical		
	Teaching Hours	**Department**
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
Vascular system 2	0.75	Histology
Revision.	1.5	Histology
Experimental 1	1.5	Pharmacology
Experimental 2	1.5	Pharmacology
Diuretics	1.5	Pharmacology
Alternation of urinary PH	1.5	Pharmacology
Treatment of rheumatic fever	1.5	Pharmacology
Heart failure	1.5	Pharmacology
Treatment of ischemic heart disease	1.5	Pharmacology
Treatment of hypertension 1	1.5	Pharmacology
Treatment of hypertension 2	0.75	Pharmacology
Treatment of shock	1.5	Pharmacology
Revision	1.5	Pharmacology
Rheumatic fever	1.5	Pathology
Endocarditis	1.5	Pathology
Pericarditis	1.5	Pathology
Cardiomyopathy (Draw Aschoff nodule)	1.5	Pathology
Thrombosis & embolism	1.5	Pathology
Infarction and gangrene	1.5	Pathology
B.V tumors.	1.5	Pathology
Atherosclerosis & aneurysm 1	1.5	Pathology
Atherosclerosis & aneurysm 2	1.5	Pathology
Edema	1.5	Pathology

Revision	1.5	Pathology
Frog dissection	1.5	Physiology
Recording of the mechanical activity of the frog's heart	1.5	Physiology
Frog dissection & recording of the mechanical activity of the frog's heart	1.5	Physiology
Determination of the pacemaker of the frog's heart.	1.5	Physiology
Demonstration of extrasystole in the frog's heart	1.5	Physiology
Demonstration of impulse conduction (Heart block) in frog.	1.5	Physiology
Auscultation of heart sounds.	1.5	Physiology
Evaluation of auscultation of heart sounds.	1.5	Physiology
Electrocardiograph and Normal ECG 1	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
Total	**90**	

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 toreach 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 includingproblem 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 Exam	At the end of the module

Final Written	40%	It Includes problem-solving, multiple choice questions, givea eason, 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%**
Total	**180**	**100%**

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. 4th 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.

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, 5th 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 Lerchefield 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						
							Formative Assessment		Summative Assessment				
		Interactive Lectures	Case Based Learning	Practical sessions	Skill Lab	Self-directed study	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**

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	
3.1	Exhibit appropriate professional behaviors and relationships in all aspects of	3.1.1	Define medical professionalism and identify its components (e.g., values, behaviors, relationships).

	practice, demonstrating honesty, integrity, commitment, compassion, and respect.	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 confidentiality on patient trust.
		3.1.6	Assess the commitments of professional doctors and medical students in terms of their alignment with the principles of medical professionalism.
		3.1.7	Critique case studies or real-life examples of professionalism violations, proposing strategies for improvement and prevention.
		3.1.8	Identify domains of medical professionalism
		3.1.9	Identify definitions, indications of professional boundaries
		3.1.10	Identify the components of each domains of medical professionalism
		3.1.11	Determine the definition and importance of power imbalance
		3.1.12	Differentiate between personal and professional boundaries
		3.1.13	Demonstrate respect to personal and professional boundaries
3.3	Respect the different cultural beliefs and values in the community they serve.	**3.3.1**	Determine definitions of Self-awareness
		3.3.2	Determine the elements and sources of self-awareness
		3.3.3	Differentiate between Self-Awareness and Self-Consciousness
		3.3.4	Differentiate between the levels of consciousness and self-awareness
		3.3.5	Compare between public and private self-awareness

	3.3.6 Differentiate between the four quadrants of Johari window model and self-awareness **3.3.7** Practcie basic skills to identify and improve the self-awareness **3.3.8** Practice basic skills to measure self-awareness in medical care **3.3.9** Define burnout. **3.3.10** Recognize the stages of burnout development. **3.3.11** Identify the causes of burnout. **3.3.12** Describe diagnosis of burnout. **3.3.13** Recall the impact of burnout. **3.3.14** Describe treatment strategies of burnout.

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

Key competency		Module LOs	
5.1	Recognize the important role played by other health care professionals in patients' management.	**5.1.1**	Define breaking bad news to the patient
		5.1.2	Identify it's importance on clinical outcome.
		5.1.3	Recognize steps of effective breaking bad news.
		5.1.4	Show positive attitude towards breaking bad news in scientific way.
		5.1.5	Criticize inappropriate breaking bad news to a patient .
		5.1.6	Identify the meaning of goal
		5.1.7	Differentiate the value and component of professionalism
		5.1.8	Apply the steps of goal setting
		5.1.9	Identify template for goal setting
		5.1.10	Differentiate SMART from non-SMART goal
		5.1.11	Create SMART goal
		5.1.12	Define sympathy and empathy
		5.1.13	Differentiate sympathy and empathy.

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.	**5.2.1** **5.2.2** **5.2.3** **5.2.4** **5.2.5**	Identify the significance of teamwork and collaboration in the medical field. Describe the benefits of effective teamwork for patient care, problem-solving, stress management, and professional development. Explain the key elements of teamwork in action, including shared goals, clear communication, mutual respect, and trust. Recognize the roles within a medical team, such as leader, facilitator, note-taker, timekeeper, and participant. 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.
5.7	Recognize own personal and professional limits, and seek help from colleagues and supervisors when necessary.	**5.7.1** **5.7.2** **5.7.3** **5.7.4** **5.7.5** **5.7.6**	Recognize effects of stress on physicians and patients Identify elements, signs and management of stress Describe the meaning and importance of time management Determine strategies of time management Define work life balance, recognize its importance 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 jigsow)	**1.5**
25	Revision	**2**
	Total hours 45 hour	

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

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	الإجمالي

1-أهداف المقرر	**بدراسة هذا المقرر يتوقع أن يكون الطالب قادًرا على :الوعي بمجموعة من القضايا المجتمعية الملحة وأهمها الزيادة السكانية والصحة الانجابية ، حقوق الانسان ، الشفافية ومكافحة الفساد، التربية الاعلامية ، و التنمية المستدامة و التمييز بين المصطلحات الأكثر شيوعا فى كل قضية ، ومن ثم يمكنه تكوين عادات سلوكية إيجابية ، فضلا 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 يسهم فى 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.**
2-المخرجات التعليمية المستهدفة من تدريس المقرر:	
أ-المعلومات والمفاهيم	**1. يعرف الزيادة السكانية** **2. يحددأبعاد المشكلة السكانية في مصر.** **3. يشرح المشكلات المترتبة على الزيادة السكانية** **4. يعرف الصحة الإنجابية** **5. يحد د خدمات ووسائل تنظيم الأسرة.** **6. 4. يعرف حقوق الإنسان** **7. يذكر مصادرحقوق الإنسان** **8. يعدد خصائص حقوق الإنسان** **9. يصنف أنواع حقوق الإنسان** **10. يعرف الشفافية** **11. يعرف النزاهة** **12. يعرف الفساد** **13. يذكر أنواع الفساد** **14. يحدد وسائل مكافحة الفساد.** **15. يعرف التربية الإعلامية** **16. يذكر أهداف التربية الإعلامية.** **17. يعدد المبادئ الأساسية للتنمية المستدامة.**

	18. يذكر المجالات المستهدفة بالتنمية المستدامة 19. يعرف التنمية المستدامة 20. يذكر أهداف التنمية المستدامة 21. التمييز بين أنماط الاستدامة. 22. يذكر تحديات التنمية المستدامة. 23. يعدد متطلبات التنمية المستدامة.
ب-المهارات الذهنية	1. يميز بين الفئات التي تستهدفها خدمات الصحة الإنجابية. 2. يفرق بين وسائل الصحة الإنجابية 3. يميز بين مصادرحقوق الإنسان 4. يفرق بين أنواع حقوق الإنسان 5. يناقش المبررات التي تدعو إلى التأكيد على حقوق الانسان 6. يميز بين الشفافية و النزاهة و الفساد. 7. يفرق بين أنواع الفساد 8. يقارن بين وسائل مكافحة الفساد. 9. يميز بين المبادئ الأساسية للتنمية المستدامة. 10. يقارن بين التفكير التحليلي والنقدي في منهج التربية الإعلامية. 11. يربط بين الشائعات والوعى بالمواجهة وفق منهج التربية الإعلامية. 12. يستنتج العلاقة بين حروب الجيل الرابع والتربية الإعلامية 13. يربط بين الوعى بأهمية التنمية المستدامة ونجاحه فى عمله 14. يفرق بين أبعاد التنمية المستدامة.
ج-المهارات المهنية	1. .يمارس المهارات المكتسبة من دراسة التربية الإعلامية. 2. يقترح بدائل للتنمية المستدامة 3. يعد تقريرًا عن أحد القضايا المجتمعية .

3-محتوى المقرر	الفصل الأول: المشكلات المترتبة على الزيادة السكانية وأثرها على الصحة الإنجابية أولا: أبعاد المشكلة السكانية في مصر. ثانيا: المشكلات المترتبة على الزيادة السكانيةثالثا: مفهوم الصحة الإنجابية رابعا: الفئات التي تستهدفها خدمات الصحة الإنجابية خامسا: خدمات ووسائل تنظيم الأسرة. سادسا:وسائل الصحة الإنجابية أنشطة الفصل الأول أسئلة وإجابات الفصل الأول. الفصل الثانى: حقوق الإنسان أولا: تعريف حقوق الإنسان. ثانيا: خصائص حقوق الإنسان ثالثا: مصادر حقوق الإنسان رابعا: أنواع حقوق الإنسان. أنشطة الفصل الثانى أسئلة وإجابات الفصل الثانى . الفصل الثالث:الشفافية ومكافحة الفساد مقدمة أولاً: الشفافية والنزاهة ثانيا: الفساد ثالثا:أنواع الفساد.الفصل الثالث:الشفافية ومكافحة الفساد رابعا:وسائل مكافحة الفساد أنشطة الفصل الثالث أسئلة وإجابات الفصل الثالث الفصل الرابع: التربية الإعلامية الرقمية أولا: مفهوم التربية الإعلامية ثانيا: المهارات المكتسبة من التربية الإعلامية ثالثا: أهداف التربية الإعلامية.

	الفصل الرابع: التربية الإعلامية الرقمية رابعا:التفكير التحليلي فى منهج التربية الإعلامية خامسا: التفكير النقدي فى منهج التربية الإعلامية سادسا:الاعلام الرقمي والتربية الإعلامية. الفصل الرابع: التربية الإعلامية الرقمية سابعا:حروب الجيل الرابع والتربية الإعلامية ثامنا:الشائعات والوعى بالمواجهة وفق منهج التربية الإعلامية أنشطة الفصل الرابع. أسئلة وإجابات الفصل الرابع الفصل الخامس التنمية المستدامة مقدمة أولاً: أهداف التنمية المستدامة ثانيا: أهمية التنمية المستدامة ثالثاً:المبادئ الأساسية للتنمية المستدامة. رابعا: أبعاد التنمية المستدامة خامساً: المجالات المستهدفة بالتنمية المستدامة سادساً :مكونات وأنماط الاستدامة سابعا: تحديات التنمية المستدامة. ثامنا: متطلبات التنمية المستدامة. أنشطة الفصل الخامس أسئلة وإجابات الفصل الخامس.
4-أساليب التدريس والتعلم	أ-المحاضرات ب-المناقشات. ج-الفيديوهات التعليمية
5- أســـاليب التدريس والتعلم للطلاب ذوى القدرات المحدودة	• محاضرات إضافية • إتاحة فرصة أوسع للنقاش أثناء الساعات المكتبية • أنشطة إثرائية
6-تقييم الطلاب	

1- الأساليب المستخدمة	1) الأنشطة التعليمية البحثية 2) اختبار منتصف الفصل الدراسى 3) اختبار قصير مع نهاية كل قضية 4) اختبار نظري في نهاية الفصل الدراسي.
ب-التوقيت	نظري 15 ساعة (1X15)
ج- توزيع الدرجات	أعمال السنة: 25 % من الدرجة. المقررمن: 20 درجة
7-قائمة الكتب الدراسية والمراجع	
أ-مذكرات	الكتاب الإلكتروني المعد تحت إشراف الجامعة
ب-كتب ملزمة	لايوجد
ج-كتب مقترحة	
د-دوريات علمية أو نشرات	لا يوجد

Module Coordinator: Dr. Enas ElShetihy	**Program Coordinator: Prof. Dr. Zeinab Kasemy**

Semester III

Respiratory System

University: Menoufia **Faculty:** Medicine

A - Administrative Information

Module Title: Respiratory system

Code No: MED 201

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

Program on which the Module is given : M.B.B.Ch Program credit points (5+2)

Academic year: 2nd Year

Semester: III

Date of specification: 2023

Date of approval by Departments Council: 2023

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

Credit points: 12 credit points/8 weeks.

	Teaching hours		
	Lectures	Practical	Activities
Anatomy	**11.25**	**11.25**	**4.5**
Histology	**7.5**	**7.5**	**3**
Physiology	**15**	**15**	**6**
Biochemistry	**22.5**	**22.5**	**9**
Pathology	**11.25**	**11.25**	**4.5**
Pharmacology	**15**	**15**	**6**
Microbiology	**7.5**	**7.5**	**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"			

B- Professional Information

I- Aim of the module:

To provide the students with knowledge and skills regarding the normal structure and development of the upper and lower respiratory tracts and their congenital anomalies, normal and abnormal microscopic structure of their tissues, the function of the respiratory system the pharmacological basis of drugs acting on this system, and common microbial infections of the respiratory tract.

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.	3.1.1 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 ILOs
4.1	Describe the normal structure of the body and its major organ systems and explain their functions.	4.1.1 Identify the components and development of the respiratory system. 4.1.2 Identify the anatomical structures of the nose, nasopharynx, paranasal sinuses and laryngeal components and their important functions. 4.1.3 Recognize the site, structure, and functions of the trachea and main bronchi. 4.1.4 Describe the anatomy of the pleurae and lung. 4.1.5 Determine the development and congenital anomalies of the respiratory tract. 4.1.6 Distinguish histological structural features of upper and lower respiratory tracts and cell types present in each of them and relate the structure to function.

		4.1.7 Compare between structure of different parts of respiratory tract and their function. 4.1.8 Identify microscopic structure of skin and its appendage and cell types present in each of them and relate the structure to function.
4.2	Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	4.2.1 Identify the respiratory cycle and discuss how different pressure, airflow, and lung volume change during a normal quiet breathing cycle and factors influencing it. 4.2.2 Draw curves of the different lung volumes & capacities and list different conditions leading to respiratory distress syndrome. 4.2.3 Describe gas exchange and ventilation-perfusion relationship. 4.2.4 Identify the regions in the central nervous system in the generation and control of cyclic breathing. 4.2.5 Define and point out oxido-reductases enzymes and components of respiratory chain. 4.2.6 Define pH, buffers, anion gap and paradoxical alkalosis
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 Recognize different respiratory disorders and different types of hypoxias, dyspnea and cyanosis.

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 Identify and explain different disease processes encountered, their causes (etiology), and how the disease develops in response to the etiologic agents (pathogenesis). 4.6.2 Describe the characteristic gross and microscopic pictures of different pathologic lesions within respiratory system and the associated functional disturbances. **4.6.3** Determine the fate and complications of different disease processes. 4.6.4 Identify normal flora and immunity of respiratory tract 4.6.5 Identify the most important micro-organisms causing Upper and lower respiratory tract infections 4.6.6 Identify the life cycles and pathogenesis of parasites and arthropods that can affect the respiratory system. **4.6.7** Recognize morphology, clinical presentations, complications, diagnosis, treatment and control of parasites and arthropods that can affect the respiratory system**.**
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 Identify the major groups (Antihistaminic, bronchodilators chemotherapy) involved in management of respiratory diseases. including bronchial asthma, TB and chest infections. 4.7.2 Identify kinetics, mechanism of actions, therapeutic uses, side effects, contraindications and drug interactions of different drugs used in treatment of respiratory diseases

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 Practice basic practical skills and competencies essential for future medical practice. 4.8.2 Label dissected structures of the upper and lower respiratory tract according to the present relations. 4.8.3 Differentiate between the consistency of arteries, veins & nerves. 4.8.4 Draw diagrams showing courses and distribution of nerves and main blood vessels in respiratory tract. 4.8.5 Draw diagrams showing surface anatomy of pleura and lung. 4.8.6 Examine of the nose, pleura and both lungs. 4.8.7 Read chest x- rays to recognize the anatomical landmarks. 4.8.8 Draw diagrams showing different component of respiratory system seen under light microscope during practical classes. 4.8.9 Differentiate between trachea, bronchi, bronchioles and alveoli in histological slides. 4.8.10 Differentiate between adult, foetal and injected lung in histological slides. 4.8.11 Draw diagrams showing the thick and thin skin. 4.8.12 Differentiate between the thick and thin skin in histological slides. 4.8.13 Sketch and label the pulmonary function curve. 4.8.14 Auscultation of breath sounds. 4.8.15 Interpretate data from Arterial Blood Gases (ABG): arterial pressure of oxygen (PaO2), Partial pressure of carbon dioxide (PaCO2), Arterial blood pH, Oxygen saturation (SaO2) and Bicarbonate - (HCO3). 4.8.16 Outline biochemical instrument used to measure pH with the principle and action. 4.8.17 Relate the pH meter to estimate pH of Gastric juice, Plasma, Saliva & Urine. 4.8.18 Interpret the results variation of pH, Bicarbonate, CO2 level and its relation to different diseases. 4.8.19 Use different laboratory techniques for handling pathologic samples, appropriate types of fixatives and processing techniques. 4.8.20 Employ different diagnostic pathological tools and methods of jar formation.

4.8.21 Assess gross and microscopic pictures aiming at reaching the correct diagnosis.
4.8.22 Design a pharmacological plan for management of pneumonia.
4.8.23 Outline a pharmacological plan for management of bronchial asthma.
4.8.24 Formulate a pharmacological plan for management of COPD.
4.8.25 Create a laboratory diagnostic approach to reach a proper diagnosis for respiratory tract infections based on microscopic examination, Culture character and Biochemical reaction.
4.8.26 Draw parasites in their different stages specially the diagnostic and infective stages.
4.8.27 Examine microscopic slides of different parasitic stages.
4.8.28 Assess hydatid cyst by naked eye (Jars).
4.8.29 Analyze the given information from spirometer curves so can distinguish between obstructive and restrictive lung disease
4.8.30 Expect the outcome of disturbed function of the respiratory system on PO2, Pco2 and PH.
4.8.31 Correlate PO2 tension and hemoglobin saturation, and blood oxygen content
4.8.32 Describe the mechanism of respiratory distress syndrome and discriminate between different types of hypoxias.
4.8.33 Explain the role of respiratory system in PH regulation.
4.8.34 Differentiate between metabolic and respiratory acidosis and alkalosis with their compensatory mechanism.
4.8.35 Interpret a pathology report.
4.8.36 Predict the diagnosis of different diseases of respiratory system based on the underlying gross and microscopic pictures.
4.8.37 Judge the dose of different drugs used in respiratory disorders simultaneously administered and to avoid any combination that could result in serious reactions.

	4.8.38 Design a course of therapy that cost effective. 4.8.39 Integrate the basic interaction of the normal flora and the immunity of respiratory tract 4.8.40 Apply the microbiological background while examining the patients with respiratory tract infections in order to reach a proper diagnosis. 4.8.41 Integrate basic information about life cycles, clinical picture and complications to estimate the diagnostic test of choice to confirm the provisional diagnosis. 4.8.42 Realize differential diagnosis for each parasitic lung disease. 4.8.43 Design a control plan of each parasite.

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.	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 ILOs
6.2 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

6.3	Identify opportunities and use various resources for learning.	6.3.1	Use information resources whether written or electronic efficiently for the educational process.
6.6	Effectively manage learning time and resources and set priorities.	6.6.1 6.6.2	Manage time and learning resources effectively. Apply priority setting in the learning process

III- Module contents:

Theoretical		
Topic	**Teaching Hours**	**Department**
Carbohydrate digestion and absorption & Glycolysis	1.5	biochemistry
Citric acid cycle	1.5	biochemistry
Uronic acid cycle, Hexose monophosphate pathway and glycogen metabolism	1.5	biochemistry
Gluconeogenesis	1.5	biochemistry
Metabolism of monosaccharaides	1.5	biochemistry
Digestion and absorption of lipid **Lipogenesis**	1.5	biochemistry
Lipogenesis(continued) **Oxidation of fatty acids**	1.5	biochemistry
Eicosanoids **Ketone body metabolism**	1.5	biochemistry
Cholesterol metabolism	1.5	biochemistry
Lipid transport	1.5	biochemistry
Biologic oxidation	1.5	biochemistry
Respiratory chain	1.5	biochemistry
Free radicals	1.5	biochemistry
Antioxidant	1.5	biochemistry
Revision	1.5	biochemistry
Viral upper respiratory infection- Orthomyxoviruses	1.5	Microbiology
Viral upper respiratory infection- Paramyxoviruses	1.5	Microbiology
Bacterial upper respiratory infection and bronchitis	1.5	Microbiology
Infection of the lungs (Typical and Atypical Pneumonia)	1.5	Microbiology

Pulmonary T.B.	1.5	Microbiology
Pathology		
Diseases of upper respiratory tract.	1.5	Pathology
Pneumonia	1.5	Pathology
Suppurative lung diseases	1.5	Pathology
Granulomatous lung diseases	1.5	Pathology
COPD	2.25	Pathology
Tumors of the respiratory system	1.5	Pathology
Revision	1.5	Pathology
Pharmacology		
General chemotherapy	1.5	pharmacology
Antibiotics 1	1.5	pharmacology
Antibiotics 2	1.5	pharmacology
Antiviral drugs	1.5	pharmacology
Anti tuberculosis	1.5	pharmacology
Autacoids	1.5	pharmacology
Antihistaminics-Allergic rhinitis	1.5	pharmacology
Treatment of bronchial asthma 1	1.5	pharmacology
Treatment of bronchial asthma 2	1.5	pharmacology
Revision	1.5	pharmacology
Conducting portion of the respiratory system	1.5	Histology
Respiratory portion of the respiratory system	1.5	Histology
Skin (Thick and thin skin)	1.5	Histology
Skin appendages (Hair , hair follicles, sweat & sebaceous glands)	1.5	Histology
Revision	1.5	Histology
Anatomy of nose, paranasal sinuses, nasopharynx	1.5	Anatomy
.Anatomy of the Larynx part1	1.5	Anatomy
.Anatomy of the Larynx p2, trachea and bronchi	1.5	Anatomy
.Anatomy of the thyroid gland	1.5	Anatomy
Anatomy of the lung	1.5	Anatomy
Anatomy of pleura, phrenic nerve, mechanism of respiration	1.5	Anatomy
Development part 1	0.75	Anatomy
Development part 2	1.5	Anatomy
Introduction and general functions of respiratory system	1.5	Physiology
Mechanics of breathing	1.5	Physiology

Lung volumes and capacities	1.5	Physiology
Respiratory pressures and pulmonary compliance	1.5	Physiology
Exchange of gases across pulmonary membrane	1.5	Physiology
Gas transport by blood	1.5	Physiology
Chemical regulation of respiratory system	1.5	Physiology
Neural Regulation of respiratory system I	1.5	Physiology
Neural Regulation of respiratory system II	1.5	Physiology
Revision	1.5	Physiology
Total	**90**	
Practical		
Practical	Teaching Hours	**Department**
Diabetes	1.5	biochemistry
Colorimetric determination of serum glucose	1.5	biochemistry
Oral glucose tolerance test	1.5	biochemistry
Glucosuria and fructosuria	1.5	biochemistry
Cases of DM, fructose intolerance and galactose intolerance	1.5	biochemistry
Diabetes	1.5	biochemistry
Colorimetric determination of serum cholesterol	1.5	biochemistry
Lipid profile	1.5	biochemistry
Dyslipoproteinemia and hypolipidemic drugs	1.5	biochemistry
Revision	1.5	biochemistry
Cardiac markers and case study	1.5	biochemistry
Revision	1.5	biochemistry
Revision	1.5	biochemistry
Revision	1.5	biochemistry
Revision	1.5	biochemistry
Upper respiratory tract infections and bronchitis	1.5	Microbiology
Corynebacterium diphteraie	1.5	Microbiology
Hemophilus influenzae	1.5	Microbiology
Streptococcal infection and Pneumonia	1.5	Microbiology
Mycobacteria	1.5	Microbiology
Diseases of upper respiratory tract (nose)	1.5	Pathology
Diseases of upper respiratory tract (larynx)	1.5	Pathology
Emphysema and bronchectasis	1.5	Pathology

TB	2.25	Pathology
Bronchogenic carcinoma	1.5	Pathology
Revision	1.5	Pathology
Revision	1.5	Pathology
Treatment of sinusitis	1.5	pharmacology
Case of pneumonia	1.5	pharmacology
Cough therapy	1.5	pharmacology
Case of TB	1.5	pharmacology
Adverse drug reactions	1.5	pharmacology
Case of Allergic rhinitis	1.5	pharmacology
Case of bronchial asthma	1.5	pharmacology
Revision	1.5	pharmacology
Revision	1.5	pharmacology
Revision	1.5	pharmacology
Trachea	1.5	Histology
Adult lung, Fetal lung, Injected lung	1.5	Histology
Thick skin	1.5	Histology
Thin skin	1.5	Histology
Revision	1.5	Histology
Anatomy of nose, paranasal sinuses, nasopharynx	1.5	Anatomy
Anatomy of the Larynx (external features)	1.5	Anatomy
Anatomy of the Larynx (internal features)	1.5	Anatomy
Anatomy of the thyroid gland	1.5	Anatomy
Pleura and lung part 1	1.5	Anatomy
Lung part 2, trachea, bronchi	1.5	Anatomy
Revision	45 min	Anatomy
Revision	1.5	Anatomy
Breath sounds	1.5	Physiology
Static pulmonary function tests	1.5	Physiology
Dynamic pulmonary function tests	1.5	Physiology
Student Lab (lesson 1)	1.5	Physiology
Student Lab (lesson 2)	1.5	Physiology
Arterial blood gases	1.5	Physiology
Restrictive and obstructive lung diseases	1.5	Physiology
Case study	1.5	Physiology
Revision	1.5	Physiology
Revision	1.5	Physiology

Total	**90**

IV– Teaching and learning methods:

1. Theoretical Teaching:

- **Interactive lectures**
- **The lecturers are conducted using:**
  a. Brain storming
  b. Audiovisual aids through animations and diagrams
  c. Interaction with the students through questions
  d. Student engagement with discussion
  e. Case based Learning

2. Practical Teaching: conducted using:

- Practical sessions

V- Student Assessment:

A. Attendance Criteria:

The minimum acceptable attendance is 75%, otherwise students failing toreach 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 includingproblem 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 Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, givea eason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Written exam.	**72**	**40%**
Final Practical exam.	**54**	**30%**
Activities	**54**	**30%**
Total	**180**	**100%**

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**
- **Essential Books:**

Anatomy:

- Gray's Anatomy for Students. 4th 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, 5th 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 Lerchefield 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, 17th 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 4th 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.

VII- Facilities required for teaching and learning:

1- Faculty Lecture halls
2- Equipped labs with microscopes, slides, boxes and jars..
3- Faculty library for textbooks & electronic library for web search.
4- Audiovisual aids as boards, data show and computers
5- Dissecting room including cadavers, bones and plastic models
6- Museum specimens
7- Pharmacology labs with equipment and materials

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

Key Competencies	Module Learning Outcomes	Teaching Methods					Assessment Methods						
							Formative Assessment		Summative Assessment				
		Interactive Lectures	Case Based Learning	Practical sessions	Skill Lab	Self-directed study	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 4.1.8	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
4.5	4.5.1	x	x			x	x		x		x	x	x
4.6	4.6.1 to 4.6.7	x	x			x	x		x		x	x	x
4.7	4.7.1, 4.7.2	x	x			x	x		x		x	x	x
4.8	4.8.1 to 4.8.43			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. Nadia Saied Badawy	**Program Coordinator: Prof. Dr. Zeinab Kasemy**

Blood and lymph

University: Menoufia **Faculty:** Medicine

A-Administrative information

Module Title: Blood and lymph

Code No: MED202

Department offering the course and teaching hours: Histology, physiology, biochemistry, pathology, microbiology, pharmacology and parasitology

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

Academic year/level: Second level

Semester: Semester III

Date of specification: 2023.

Date of approval by Departmental Council: 2023

Date of approval by Faculty Council: 2023

Credit points: 12 Credit points/8 weeks

	Teaching Hours		
	Lectures	**Practical**	**Activities**
Histology	**11.25**	**11.25**	**4.5**
Physiology	**15**	**15**	**6**
Biochemistry	**15**	**15**	**6**
Pathology	**7.5**	**7.5**	**3**

Microbiology	**18.75**	**18.75**	**7.5**
Pharmacology	**11.25**	**11.25**	**4.5**
Parasitology	**11.25**	**11.25**	**4.5**
Total	**90**	**90**	**36**
This is the Distribution of 60% of the module equivalent contact hours according to the decision of the University Council"			

- Professional Information

1 – Aim of the Module:

To provide the students with basic knowledge and skills regarding the anatomy of the lymphatics, spleen, thymus and tonsil, the normal and abnormal microscopic structure of different tissues of blood and lymphatic system. The, biochemical basis of heme synthesis and catabolism and their related disorders, the pharmacological basis of drugs acting on the blood, blood born parasitic diseases and mosquito born infections, and different types and mechanisms of the immune system.

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.	3.1.1 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

4.1	Describe the normal structure of the body and its major organ systems and explain their functions.	4.1.1. Describe surfaces and relation of spleen, tonsils and lymph nodes groups in head and neck, inguinal and axillary region. 4.1.2. Describe cisterna chyli, thoracic duct and right lymphatic duct 4.1.3. Distinguish histological structural features of lymphatic organs and cell types present in each organ and relate the structure to organs' function. 4.1.4. Compare between different blood elements and their development. 4.1.5. Discuss the function of the blood and plasma protein. 4.1.6. Discuss the principles of blood coagulation. 4.1.7. Recognize the function of RBCs and different types of anemia. 4.1.8. Identify components of immune system, different types of antigens and different mechanisms of antigen antibody reaction. 4.1.9. Explain the difference between innate and acquired immunity. 4.1.10. Integrate basic anatomical, histopathological and physiological aspects of blood and lymphatic system with clinical data 4.1.11. Analyze the anatomical facts while examining the living subject in order to reach a proper diagnosis. 4.1.12. Relate the composition of each organ histological structure to its specific functions. 4.1.13. Evaluate the activities and properties of living cells based on the observation of fixed specimens.
4.2	Explain the molecular, and cellular mechanisms that are important in maintaining the body's homeostasis.	4.2.1. Identify components of immune system, different types of antigens and different mechanisms of antigen antibody reaction. 4.2.2. Describe the metabolism of hemoglobin. 4.2.3. Identify the types, functions white blood cells. 4.2.4. Interpret the light microscopic appearance of normal cells, tissues and organs.

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. Discuss blood coagulation disorders and predict the hazards of incompatible blood transfusion. 4.5.2. Identify structure and function of lymphatic system and Recognize factors affecting lymph flow. 4.5.3. Describe causes, complications and diagnosis of septicemia and bacteremia. 4.5.4. Define immune-prophylaxis and different types of vaccines. 4.5.5. Identify the basics of different types of tissue damage, autoimmune diseases and immunological aspects of tumors. 4.5.6. Describe the life cycles and pathogenesis of schistosomiasis, lymphatic filariasis, Leishmaniasis and Malaria. 4.5.7. Predict the intracellular or tissue components likely to be involved in a functional deficit. 4.5.8. Integrate basic information about blood born infections and blood culture.
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. Identify the changes in white blood cells. 4.6.2. Identify the most common types of nutritional anemias and their treatment. 4.6.3. Describe the related metabolic disorders of hemoglobin. 4.6.4. Describe the morphological (gross & microscopic) changes in lymphatic system occurring as a result of blood and lymphatics diseases and the associated functional disturbances. 4.6.5. Determine the fate & complications of blood and lymphatics diseases. 4.6.6. Compare between different types of thrombi, emboli and lymphomas. 4.6.7. Recognize clinical presentations, complications and diagnosis of schistosomiasis,, lymphatic filariasis, leishmaniasis and Malaria. 4.6.8. Determine different types of anemia.

		4.6.9. Interpret symptoms, signs and biochemical laboratory findings of some hemoglobinopathy. 4.6.10. Apply the principles of evidence-based medicine to solve a particular clinical problem according to the regarding any blood and lymphatics pathology. 4.6.11. Integrate basic information about life cycles of schistosomiasis, lymphatic filariasis, leishmaniasis and malaria, clinical picture and complications for diagnosis. 4.6.12. Manage time efficiently and work in group.
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. Identify the three major groups (antiplatelet, anticoagulants and fibrinolytics) involved in management of thrombotic diseases. 4.7.2. List drugs used in excessive bleeding. 4.7.3. Select the appropriate anti-anemic, anticoagulant, coagulant, Antiplatelet, Fibrinolytics and antifibrinolytics drugs for suitable patient. 4.7.4. Judge the dose of different anticoagulant, coagulant, Antiplatelet, Fibrinolytics and antifibrinolytics drugs simultaneously administered and to avoid any combination that could result in serious reactions.

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. Interpret complete blood picture. 4.8.2. Interpret immunological and molecular laboratory test reports 4.8.3. Identify the normal structure of any given histological slide. 4.8.4. Categorize and compose a pathology report. 4.8.5. Draw diagrams showing different lymph node groups. 4.8.6. Identify radiologically the spleen, different tonsils and lymph nodes. 4.8.7. Differentiate between types of tissues and organs in histological slides. 4.8.8. Draw and label the structures they have seen under light microscope during practical classes. 4.8.9. Identify different types of blood samples 4.8.10. Identify different types of instruments used in different biochemical assays 4.8.11. Examine and identify gross and microscopic findings of blood, spleen and lymphatics diseases 4.8.12. Identify the light microscopic appearance of RS cells, in Hodgkin's lymphoma. 4.8.13. Diagram steps of platelet aggregation and show site of their action of different antiplatelet drugs. 4.8.14. Demonstrate procedure of haematocrit, haemoglobin and ESR measurement. 4.8.15. Demonstrate procedure of bleeding time coagulation time, blood group determination and disorders of blood coagulation and predict the hazards of incompatible blood transfusion. 4.8.16. Employ experiments that test the response of isolated and intact preparations (of animals) to some selected drugs . 4.8.17. Prescribe a prescription on a rational base for selected important diseases considering patient age, weight and health status. 4.8.18. Draw parasites in their different stages specially the diagnostic and infective stages through examination of microscopic slides. 4.8.19. Identify some parasites or their stages by naked eyes.

	4.8.20. Identify different antigen antibody reaction laboratory test from case sanario and practical serological tests.

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.	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
6.2 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
6.3 Identify opportunities and use various resources for learning.	6.3.1 Use information resources whether written or electronic efficiently for the educational process.
6.6 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 teaching		
Topic	**Teaching Hours**	**Department**

Bone marrow and hemopoiesis	1.5	Histology
Blood elements I (RBCs & platelets)	1.5	Histology
Blood elements II (WBCs)	1.5	Histology
Cells of immune system	1.5	Histology
Thymus & Tonsil	1.5	Histology
Lymph node and spleen	1.5	Histology
Revision	2.25	Histology
General functions of the blood	1.5	Physiology
function of plasma and plasma proteins	1.5	Physiology
Functions of red blood cells	1.5	Physiology
Hemoglobin and anemia	1.5	Physiology
Hemostasis 1 (role of platelets)	1.5	Physiology
Hemostasis 2 (role of coagulation)	1.5	Physiology
Blood groups and blood transfusion	1.5	Physiology
General functions of leucocytes	1.5	Physiology
Lymphatic system	1.5	Physiology
Revision	1.5	Physiology
Protein digestions and absorption, transamination and ammonia transport and ammonia intoxication	1.5	Biochemistry
Reaction of Urea cycle and disorder of urea cycle, metabolism of individual amino acid (glycine)	1.5	Biochemistry
Metabolism of individual amino acid (alanine, serine ,threonine, methionine, cysteine and cystine)	1.5	Biochemistry
Metabolism of Aromatic amino acid (Phenylalanine, tryptophane)	1.5	Biochemistry
Metabolism of branched-chain amino acid, acidic amino acids, basic amino acids, histidine, proline and hydroxyproline, and aminoaciduria	1.5	Biochemistry

Integration	1.5	Biochemistry
Hem synthesis	1.5	Biochemistry
Hem catabolism	1.5	Biochemistry
Cytochrome p450	1.5	Biochemistry
Conjugation reactions	1.5	Biochemistry
Bacteremia, septicemia, pyemia toxemia	1.5	Pathology
Bacterial spread in blood	1.5	Pathology
Non-neoplastic lymph node disorders	1.5	Pathology
Lymphoma (Hodgkin's)	1.5	Pathology
Lymphoma (NHL)	1.5	Pathology
Introduction to the Immune System	1.5	Microbiology
Innate Immunity	1.5	Microbiology
Antigens	1.5	Microbiology
Major Histocompatibility Complex (MHC)	1.5	Microbiology
CD Markers	1.5	Microbiology
Antigen-Presenting Cells (APCs)	1.5	Microbiology
Cells of the Immune Response	1.5	Microbiology
CD8+ Cell-Mediated Immunity	1.5	Microbiology
Humoral Immune Response	1.5	Microbiology
Cytokines	1.5	Microbiology
MHC Genes	1.5	Microbiology
Complement System and Immunoprophylaxis	2.25	Microbiology
Lymphatic filariasis - Leishmaniasis	1.5	Parasitology
Schistosomiasis	1.5	Parasitology
Leishmaniasis	1.5	Parasitology
Malaria	1.5	Parasitology
Trypanosomiasis	1.5	Parasitology
Babesia	1.5	Parasitology
Sand fly and Ticks	2.25	Parasitology
Drug therapy of anemia	1.5	Pharmacology
Parenteral anticoagulant	2.25	Pharmacology
Oral anticoagulant	1.5	Pharmacology
Antiplatelets	1.5	Pharmacology
Antifibrinolytics	1.5	Pharmacology
Lipid-lowering drugs	1.5	Pharmacology
Revision	1.5	Pharmacology

Total	**90**	
Practical		
Practical Sessions	**Teaching Hours**	**Department**
Bone Marrow	1.5	Histology
Blood film	1.5	Histology
Blood film	1.5	Histology
Revision	1.5	Histology
Thymus and tonsil	1.5	Histology
Lymph node and spleen	1.5	Histology
Revision	2.25	Histology
Packed cell volume or Hematocrit value	1.5	Physiology
Estimation of Hb concentration	1.5	Physiology
Blood indices	1.5	Physiology
Estimation of the erythrocyte sedimentation rate (ESR)	1.5	Physiology
Osmotic fragility test	1.5	Physiology
Estimation of bleeding time	1.5	Physiology
Estimation of clotting time	1.5	Physiology
Abnormal hemostasis	1.5	Physiology
Determination of blood grouping	1.5	Physiology
Revision	1.5	Physiology
Albumin colorimetry	1.5	Biochemistry
Electrophoresis	1.5	Biochemistry
Plasma protein electrophoresis	1.5	Biochemistry
Cases and Case Interpretations	1.5	Biochemistry
Anemias & interpretations	1.5	Biochemistry
Anemias & interpretations	1.5	Biochemistry
Eliza & chromatography	1.5	Biochemistry

Revision	1.5	Biochemistry
Revision	1.5	Biochemistry
Revision	1.5	Biochemistry
Non-neoplastic lymph node diseases	1.5	Pathology
Lymphatic tumors 1	1.5	Pathology
Lymphatic tumors 2	1.5	Pathology
Revision	1.5	Pathology
Revision	1.5	Pathology
Introduction to Immunological Methods	1.5	Microbiology
Agglutination Techniques in Immunology	1.5	Microbiology
Precipitation Reactions in Immune Response	1.5	Microbiology
Toxin and Antitoxin Interactions	1.5	Microbiology
Neutralization Mechanisms	1.5	Microbiology
Overview of Hypersensitivity Reactions	1.5	Microbiology
Types of Hypersensitivity: Immediate and Delayed	1.5	Microbiology
Monoclonal Antibodies – Production and Applications	1.5	Microbiology
Use of Monoclonal Antibodies in Diagnostics	1.5	Microbiology
Rapid Diagnostic Tests – Principles and Applications	1.5	Microbiology
Diagnostic Tests for Infectious Diseases	1.5	Microbiology
Revision	2.25	Microbiology
Schistosomiasis	1.5	Parasitology
Malaria	1.5	Parasitology
Babesia-blood film	1.5	Parasitology
Filariasis, Wichereria bancrofti	1.5	Parasitology

Brugia malayi		
Trypanosoma gambiensi and cruzi	1.5	Parasitology
Sand fly and ticks	1.5	Parasitology
Revision	2.25	Parasitology
Case of microcytic anemia	1.5	Pharmacology
Case of macrocytic anemia	1.5	Pharmacology
Case of deep venous thrombosis	1.5	Pharmacology
Coagulants	1.5	Pharmacology
Treatment of Obesity	1.5	Pharmacology
Case of Obesity	1.5	Pharmacology
Revision	2.25	Pharmacology
Total	**90**	

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 toreach 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 and Schedule:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% written at the end of and periodicals includingproblem 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 Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, givea eason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Written exam.	**72**	**40%**
Final Practical exam.	**54**	**30%**
Activities	**54**	**30%**
Total	**180**	**100%**

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:

- **Electronic Books of Module Departments**
- **Essential Books:**

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.

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.

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, 5th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2020

Microbiology:

- Review of medical microbiology and immunology, 17th 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 4th 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.

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 Lerchefield and Chris Giordian . Lippincott Williams & Wilkins, 2022.
- Essentials of Medical Pharmacology 8th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2018.

Parasitology:

- Foundations of Parasitology. 10th Edition. By: Larry Roberts, John Janovy, Steven Adler. McGraw-Hill Education, 2015.
- Paniker's Textbook of Medical Parasitology, 9th 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- Equipped labs with microscopes, slides, boxes and jars..
3- Faculty library for textbooks & electronic library for web search.
4- Audiovisual aids as boards, data show and computers

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

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
						Formative Assessment		Summative Assessment				
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	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 4.1.13	x	x		x	x		x		x	x	x
4.2	4.2.1, 4.2.5	x	x		x	x		x		x	x	x
4.5	4.5.1 to 4.5.8	x	x		x	x		x		x	x	x
4.6	4.6.1 to 4.6.12	x	x		x	x		x		x	x	x
4.7	4.7.1 to 4.7.4	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.20			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. Asmaa Shaiban	**Program Coordinator: Prof. Dr. Zeinab Kasemy**

Semester IV

Psychology

University: Menoufia **Faculty: Medicine**

A-Administrative information

Title: Clinical psychology

Code No: MED 203

Department offering the Module : Neuropsychiatry

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

Academic year/level: Second level

Semester: Semester III

Date of specification: 2023.

Date of approval by Department Council: 2023

Date of approval by Faculty Council: 2023

Credit points: 3 point/ Longitudinal

Teaching Hours: 45 hours/ Lectures

- Professional Information

I. Aim of the Module:

To provide the students with basic knowledge regarding normal and abnormal psychological development (psychosocial, emotional, cognitive and moral) and its clinical application, and approach for management/

II – Learning Outcomes of the Module

Competency Area 1: The graduate as a health care provider.

Key competency		Module LOs
1.1	Take and record a structured, patient-centered history.	1.1.1. Take good history about different emotional symptom according to their age group. 1.1.2. Take good history about different thinking symptom according to their age group. **1.1.3.** Take a good history about different cognitive signs.
1.2	Adopt an empathic and holistic approach to the patients and their problems.	1.2.1. Demonstrate empathy in patient counseling. 1.2.2. Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities. 1.2.3. Apply the ethics of medical practice when dealing with patients and colleagues. 1.2.4. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community. 1.2.5. Identify the approach for management of difficult communication including
1.3	Assess the mental state of the patient.	1.3.1. Perform correct clinical assessment of normal and abnormal contimum. 1.3.2. Perform correct clinical examination for cognition 1.3.3. Perform correct clinical examination for behavior.

		1.3.4. Perform correct clinical examination and make a diagnostic approach and treatment plan for cognitive behavioral therapy. 1.3.5. Interpret different stages of development and measure t's positive and negative outcomes. 1.3.6. Report clinical uses of cognitive distortions and it's implication in cognitive behavioral therapy . 1.3.7. Interpret cognitive and behavioral aspects of behavior. 1.3.8. Analyze different cognitive and behavioral problem to plan for efficient cognitive behavioral therapy . 1.3.9. Interpret psychological assessment for memory, attention, working memory, emotion, thinking, cognitive distortions investigations of different age group. 1.3.10. Formulate the management of cognitive and behavioral problems. 1.3.11. Interpret investigations of memory, attention, working memory, emotion, thinking, cognitive distortions. . 1.3.12. Analyze individual cognitive distortion. 1.3.13. Interpret the intelligent quotient. 1.3.14. Formulate a differential diagnosis of emotions 1.3.15. Formulate a differential diagnosis of thinking 1.3.16. Formulate a differential diagnosis of cognition 1.3.17. Formulate a differential diagnosis of defense mechanisms. 1.3.18. Report cognitive behavioral therapy management plan of an anxious patient 1.3.19. Report cognitive behavioral therapy management plan of depressed patient
1.5	Prioritize issues to be addressed in a patient encounter.	**1.5.1.** Apply priority setting while formulating a differential diagnosis for different psychological cases.

1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	1.7.1. Work with other healthcare professionals in management of undiagnosed cases. 1.7.2. Apply the rules of consultation for urgent and undiagnosed cases. 1.7.3. Communicate effectively through feedback to help evaluate his own and others work.
1.8	Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	1.8.1. Outline causes of positive and negative outcome of each stage. 1.8.2. Identify mechanism of positive and negative outcome 1.8.3. Recognize different implications of each stage of development 1.8.4. Outline the definition of four stages of cognitive development. 1.8.5. Describe clinical attainment of each one of the four stages. 1.8.6. Outline the different causes of failure of attaining the normal stage charateristics. 1.8.7. Identify criteria of screened the different stages of development(psychosocial, cognitive ,emotional and moral development) in different population e.g. schools 1.8.8. Identify the technique of screening. 1.8.9. Recognize the prevention of negative outcome of each stage of development(.psychosocial, cognitive ,emotional and moral development).

		1.8.10. Discuss the neural correlate of emotion and affect . 1.8.11. Identify etiology, pathogenesis, clinical manifestations of different emotions 1.8.12. Differentiate between normal euthymic emotion and abnormal emotions. 1.8.13. Explain etiology, clinical manifestations of different emotional diseases. 1.8.14. Outline the definitions of euthymic normal emotion and definition of different abnormal emotions . 1.8.15. Describe the etiology, clinical manifestations of different abnormal emotion 1.8.16. Identify the assessment and investigation of each abnormal emotion 1.8.17. Recognize clinical importance of thought 1.8.18. Identify classification of thought disorders 1.8.19. Identify the difference between normal and abnormal thinking. 1.8.20. Describe the health services for awareness of the different groups of the population with normality and abnormality of thinking. 1.8.21. Identify the social health services for improving population awareness . 1.8.22. Identify common cognitive problems among different age groups. 1.8.23. Identify component of cognitive examinations 1.8.24. Recognize importance memory, attention , and exucative functions in healthy study. 1.8.25. List components and definitions of each cognitive function . 1.8.26. Recognize the importance of periodic cognitive examination for early detection of diseases and prevention. 1.8.27. Identify common cognitive problems among different age groups. 1.8.28. List steps for proper cognitive examination 1.8.29. Identify component of psychological testing of intelligence.

		1.8.30. Recognize the role of psychiatrists in prevention and management of memory and executive problems in children , adolescents, and geriatric 1.8.31. Outline the definitions of different cognitive distortion. 1.8.32. Outline the classifications of different defense mechanism. 1.8.33. Recognize clinical importance of detecting cognitive distortion and it's implication in preventing psychiatric diseases as a risk factors of them 1.8.34. Identify the difference between healthy and unhealthy defense mechanisms 1.8.35. Describe the health services for awareness of the different groups of the population with normality and abnormality of behavior **1.8.36.** Identify the social health services for improving population awareness with cognitive distortions to improve quality of life and Improve economic outcomes.
1.13	Establish patient-centered management plans in partnership with the patient, his/her family and other health professionals as appropriate, using Evidence Based Medicine in management decisions.	1.13.1. Retrieve information and be able to use the recent evidence based information and communications technologies 1.13.2. Apply continuous medical education and research to keep up-to-date with the international advancement in medicine and surgery. 1.13.3. Use of information technology to improve the quality of patient care through proper. 1.13.4. Share patients or their caregivers in decision making regarding management plans. 1.13.5. Gather and organize material from various sources (including library, electronic and online resources). 1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT. 1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data). 1.13.8. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients

		1.13.9. Apply Cognitive behavioral program on different psychological problems. 1.13.10. Conduct counselling session with a normal population. 1.13.11. Diagnose and manage common health problems among different age groups. 1.13.12. Practice health maintenance and disease prevention for different age group. 1.13.13. Formulate the way of management of cognitive part of cognitive behavioral therapy 1.13.14. Formulate the way of management of behavioral part of cognitive. 1.13.15. Formulate cognitive treatment of a depressed patient by cognitive behavioral therapy 1.13.16. Formulate behavioral treatment of a depressed patient by cognitive behavioral therapy 1.13.17. Formulate the management of memory 1.13.18. Interpret investigations of attention 1.13.19. Formulate management of Working memory 1.13.20. Formulate psychosocial ,cognitive ,moral development counseling 1.13.21. Design health educational messages for different age groups. 1.13.22. Choose the appropriate screening test for each age group. 1.13.23. .Organize for a cognitive behavioral therapy sessions . 1.13.24. Correlate between age and need of screening psychosocial ,cognitive ,moral among different age group.

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.	3.1.1 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

3.4	Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural or ethnic backgrounds, or their disabilities.	3.4.1 Demonstrate respect to social, culture, and ethnic difference of patients treating them equally.
3.8	Refer patients to the appropriate health facility at the appropriate stage.	3.8.1 Identify the rules of referral for complex and undiagnosed cases

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

Key competency		Module LOs
4.4	Explain normal human behavior and apply theoretical frameworks of psychology to interpret the varied responses of individuals, groups and societies to disease.	4.4.1. Define psychosocial, cognitive ,emotional and moral development in different stages of growth in children ,adolescent ,adult and geriatric 4.4.2. Describe different characteristics of development at its four fields (psychosocial, cognitive ,emotional and moral development). 4.4.3. Outline eight stages of psychosocial development and the four stages of cognitive development

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

III. Module Contents:

Theoretical	
Topic	**Teaching hours**
Introduction to Clinical Psychology: ***Definition, Approaches, fields***	1.5
Developmental Psychology: Physical Development	1.5
Developmental Psychology: Cognitive Development	1.5
Developmental Psychology: Psycho-sexual Development	1.5
Developmental Psychology: Psycho-social Development	1.5
Developmental Psychology: Moral Development	1.5
Cognitive aspect of Behavior: Consciousness; ***Definition, Disorders, Test***	1.5
Cognitive aspect of Behavior: Sleep; ***Definition, Stages,***	1.5
Cognitive aspect of Behavior: Sensations; ***Definition, Factors affecting, Disorders,***	1.5
Cognitive aspect of Behavior: Perception; ***Definition, Factors affecting, Disorders,***	1.5

Cognitive aspect of Behavior: Attention; *Definition, Factors affecting, Disorders,*	1.5
Cognitive aspect of Behavior: Thinking; *Definition, Factors affecting, Disorders,*	1.5
Cognitive aspect of Behavior: Memory; *Definition, Types, Factors affecting, Disorders.*	1.5
Cognitive aspect of Behavior: Learning; *Definition, Types, Factors affecting.*	1.5
Revision	1.5
Cognitive aspect of Behavior: Intelligence; *Definition, Factors affecting, IQ test*	1.5
Motives, Needs & Instincts: *Definition, Types, Factors affecting.*	1.5
Defense Mechanisms: *Definition, causes, types*	1.5
Affective aspect of Behavior: Emotions; *Definition, Types, Factors affecting.*	1.5
Affective aspect of Behavior: Stress; *Definition, Types, Coping, Complications*	1.5
Affective aspect of Behavior: Frustration; *Definition, Causes, Factors affecting.*	1.5
Psychology of Aggression *Definition, Types, Causes*	1.5
Psychology of Personality: *Definition, Factors affecting, Clusters*	1.5
Psychology of Personality: *Personality Disorders (part I)*	1.5
Psychology of Personality: *Personality Disorders (part II)*	1.5
Psychology of Personality: *Personality Disorders (part III)*	1.5
Cognitive Distortions: *Definition, Common core believes, automatic thoughts*	1.5
Cognitive Behavioral Therapy: *Definition, mechanisms, Applications of CBT*	1.5
Cognitive Behavioral Therapy: *Definition, mechanisms, Applications of CBT*	1.5
Revision	1.5
Total	45

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. Clinical Teaching:

Clinical rounds: using

- Web based video and Multimedia applications
- Problem solving

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

The minimum acceptable attendance is 75%, otherwise students failing toreach 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 and Schedule:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% written exam at the end of the module 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 Written	40%	It Includes problem-solving, multiple choice questions, givеaеason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Written exam.	**31.5**	**70%**
Coursework	**13.5**	**30%**
Total	**45**	**100%**

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:

- **Module handout**.
- **Essential Books:**

- Clinical Psychology: Assessment, Treatment, and Research 1st Edition. By: David C.S. Richard, Steven K. Huprich. Academic Press, 2008
- Introduction to Clinical Psychology (8th Edition) 8th Edition. By: Geoffrey P. Kramer, Douglas A. Bernstein, Vicky Phares. Pearson, 2013.

VII- Facilities required for teaching and learning:

1- Faculty Lecture halls
2- Faculty library for textbooks & electronic library for web search.
3- Audiovisual aids as boards, data show and computers.
4- Clinical round teaching rooms.

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

Key Competencies	Module Learning Outcomes	Teaching Methods					Assessment Methods						
							Formative Assessment		Summative Assessment				
		Recorded Lecture	Inverted Lectures	Case Based Learning	Clinical Rounds	Self-directed study	Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.3				x			x		x	x		x
1.2	1.2.1 to 1.2.5			x	x			x		x			x
1.3	1.3.1 to 1.3.19			x	x			x		x		x	x
1.5	1.5.1	x	x	x	x	x	x	x	x	x		x	x
1.6	1.6.1 to 1.6.3	x	x	x	x	x	x	x	x	x		x	
1.7	1.7.1 to 1.7.3			x	x		x		x				
1.8	1.8.1 to 1.8.36	x	x	x		x	x		x		x	x	x
1.13	1.13.1 to 1.13.24			x	x	x	x	x	x	x		x	
3.1	3.1.1 to 3.1.2				x			x		x			x
3.4	3.4.1				x			x		x			x
3.8	3.8.1				x			x		x			x
4.4	4.4.1 to 4.4.3	x	x	x	x	x	x		x			x	x
5.2	5.2.1, 5.2.2	x	x	x	x						x		x
5.10	5.10.1 to 5.10.3				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 Afaf Zein Elabideen	**Program Coordinator: Prof. Zeinab Kasemy**

Basic Clinical Skills I

University: Menoufia **Faculty: Medicine**

A-Administrative information

Title: Basic Clinical Skills I

Code No: MED 204

Department offering the Module: Family Medicine

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

Academic year/level: Second level

Semester: Semester III

Date of specification: 2023.

Date of approval by Department Council: 2023

Date of approval by Faculty Council: 2023

Credit points: 1 Credit point/ Longitudinal

Teaching Hours: 18 hours/ Practical

Professional Information

I. Aim of the Module:

To provide the students with a group of the basic clinical skills which are essential for his future practice as a general practitioner

II – Learning Outcomes of the Module

Competency Area 1: The graduate as a health care provider.

Key competency	Module LOs
1.4 Perform appropriately-timed full physical examination of patients, appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive.	1.4.1. Perform pulse assessment in a correct manner 1.4.2. Practice blood pressure measurement 1.4.3. Measure temperature and respiratory rate in a correct manner 1.4.4. Perform lump examination 1.4.5. Practice lymph node examination 1.4.6. Interpret the clinical signs detected 1.4.7. Apply the ethics of medical practice when examining patients. 1.4.8. Apply proper infection control when dealing with patients.

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
3.4 Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural or ethnic backgrounds, or their disabilities.	3.4.2 Demonstrate respect to social, culture, and ethnic difference of patients treating them equally.
3.8 Refer patients to the appropriate health facility at the appropriate stage.	3.8.2 Identify the rules of referral for complex and undiagnosed cases

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

Key competency		Module LOs	
4.4	Explain normal human behavior and apply theoretical frameworks of psychology to interpret the varied responses of individuals, groups and societies to disease.	4.4.4.	Define psychosocial, cognitive ,emotional and moral development in different stages of growth in children ,adolescent ,adult and geriatric
		4.4.5.	Describe different characteristics of development at its four fields (psychosocial, cognitive ,emotional and moral development).
		4.4.6.	Outline eight stages of psychosocial development and the four stages of cognitive development

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.	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 ILOs	
6.2	Develop, implement, monitor, and revise a personal learning	6.2.3	Formulate a learning plan for the module in focus

	plan to enhance professional practice.	6.2.4	Apply the learning plan respecting emerging priorities and encounters
6.3	Identify opportunities and use various resources for learning.	6.3.2	Use information resources either written or electronic efficiently for the educational process.
6.6	Effectively manage learning time and resources and set priorities.	6.6.3 6.6.4	Manage time and learning resources effectively. Apply priority setting in the learning process

III. Module Contents:

Clinical	
Pulse Measurement	3
Blood Pressure Measurement	3
Temperature and respiratory rate measurement	3
Lump examination	3
Lymph node examination	3
Revision	3
Total	**18**

IV– Teaching and Learning Methods:

Clinical Teaching:

a) **Clinical sessions: using**
   - Web based video and Multimedia applications
   - Simulated Patients
   - Problem solving

b) **Skill Lab**

V- Student Assessment:

A. Attendance criteria:

The minimum acceptable attendance is 75%, otherwise students failing toreach 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 and Schedule:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% an OSCE exam at the end of the module	At the end of the module
		10% Participation in clinical activities.	During the module
Final Clinical exam	70%	OSCE Exam	At the end of the semester

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Clinical exam.	**10.5**	**70%**
Coursework	**4.5**	**30%**
Total	**15**	**100%**

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.**
- **Essential Books:**
  - Macleod's Clinical Examination, 13th Edition. By: Graham Douglas , Fiona Nicol , Colin Robertson. Churchill Livingstone; 2013
  - Bates' Guide To Physical Examination and History Taking (Lippincott Connect) 11th Edition. By: Lynn S. Bickley, Peter G. Szilagyi. Lippincott Williams & Wilkins; 2012

VII- Facilities required for teaching and learning:

1- Faculty Lecture halls
2- Faculty library for textbooks & electronic library for web search.
3- Audiovisual aids as boards, data show and computers.
4- Clinical round teaching rooms.
5- Skill Lab

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

Key Competencies	Module Learning Outcomes	Teaching Methods		Assessment Methods						
				Formative Assessment		Summative Assessment				
		Clinical Rounds	Skill Lab	Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.4	1.4.1 to 1.4.8	x	x		x		x		x	x
3.1	3.1.1 to 3.1.2	x			x		x			x

3.4	3.4.1	x			x		x			x
3.8	3.8.1	x			x		x			x
4.4	4.4.1 to 4.4.3	x	x	x		x			x	x
5.2	5.2.1, 5.2.2	x						x		x
5.10	5.10.1 to 5.10.3	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. Nareman Mahmoud Bebars	**Program Coordinator: Prof. Dr. Zeinab Kasemy**

Semester IV

Gastrointestinal System

University: Menoufia **Faculty: Medicine**

A - Administrative Information

Module Title : Gastrointestinal System

Code No: MED 205

Departments offering the module and teaching hours: Histology, Parasitology, Pathology, Anatomy, Physiology, Pharmacology, and Microbiology

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

Academic year: 2nd Year

Semester: IV

Date of specification: 2023

Date of approval by Departments Council: 2023

Date of approval by Faculty Council: 2023

Credit points: 10.5 credit points/ 7 weeks

	Teaching hours		
	Lectures	**Practical**	**Activities**

Anatomy	**18.75**	**18.75**	**7.5**
Parasitology	**14.25**	**14.25**	**5.7**
Histology	**10.5**	**10.5**	**4.2**
Pathology	**10.5**	**10.5**	**4.2**
Pharmacology	**10.5**	**10.5**	**4.2**
Physiology	**7.5**	**7.5**	**3**
Microbiology	**6.75**	**6.75**	**2.7**
Total	**78.75**	**78.75**	**31.5**
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 the students with basic knowledge and skills regarding the gastrointestinal tract and its related organs including development, normal anatomy, congenital anomalies, norma and abnormal microscopic structures, functions, disease pattens and with gross, and microscopic pictures and etiopathogenesis, common parasitic and microbial diseases, related biochemical reactions, and the pharmacological basis of drugs acting on the gastrointestinal tracts

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	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

honesty, integrity, commitment,
compassion, and respect.

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 anatomy of gastrointestinal tract, liver, and pancreas. 4.1.2. Describe the vasculatures of gastrointestinal tract and previous mentioned related organs. 4.1.3. Identify the course, important relations, distribution and effect of injury of gastrointestinal blood vessels and biliary system. 4.1.4. Recognize the anatomical basis of gastro-oesophageal reflux disease, appendicitis, cholecystitis, pancreatitis, and portal hypertension. 4.1.5. Describe the normal development of gastrointestinal tract and its related organs and their congenital anomalies. 4.1.6. Describe the basic histological structure of different parts of GIT. 4.1.7. Distinguish structural features of organs, regions and cell types present in each part of GIT system. 4.1.8. Identify the normal histological structure of various glands associated with GIT. 4.1.9. Describe the mechanism of formation of the salivary secretion. 4.1.10. Explain the differences in types of salivary secretion and function. 4.1.11. Outline the phases of swallowing. 4.1.12. Describe the process of gastric secretion, function of HCL, and gastric movement 4.1.13. Identify the function, types, and control of secretion of pancreas. 4.1.14. Describe the various composition of biliary secretion and function of gall bladder 4.1.15. Name different types of jaundice and their manifestation **4.1.16.** Recognize the concept of intestinal absorption, intestinal motility and defecation reflex. 4.1.17. Relate the anatomical knowledge with clinical signs seen in cases of portal hypertension. 4.1.18. Correlate the blood supply of some organs and their structure and specialized functions. 4.1.19. Illustrate the functional anatomy, the enteric nervous system and innervation of the GIT. **4.1.20.** Illustrate the course of common bile duct in relation to the surrounding structure.

		4.1.21. Relate the ultrastructure and function of different cell types in different parts and glands of GIT. 4.1.22. Relate the histological structure of each organ to its specific functions.
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 different gastrointestinal disease processes, their causes (etiology), and how the disease develops in response to the etiologic agents (pathogenesis). 4.5.2. Determine the fate and complications of different GIT disease processes. 4.5.3. Describe various aspects of parasites of medical importance concerning its geographical distribution, morphology and life cycles. 4.5.4. Mention the clinical presentations and complications of GIT parasitic diseases. 4.5.5. Determine the methods used for prevention and control of the most common parasites in the community. 4.5.6. Describe the common arthropods of medical interest and explain their medical importance and the methods of combating. 4.5.7. Identify common microbial infections of the gastrointestinal tract, their spread, pathogenesis, fate, and complications.
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 and discuss characteristic gross and microscopic pictures of different pathologic lesions within the GIT specific organ systems and the associated functional disturbances. 4.6.2. Solve problems through case study of certain GIT diseases. 4.6.3. Integrate basic anatomical, biochemical, histopathological, and physiological facts with clinical data.

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. Outline the lines of treatment of peptic ulcer. 4.7.2. Determine the effective therapeutic drugs and its doses in treating each parasitic infection. 4.7.3. Explain mechanism of action of drugs used in treatment of GIT diseases. 4.7.4. Describe pharmacological actions, therapeutic uses, side effects and drug interactions of some drugs used in the treatment of GIT diseases. 4.7.5. Outline the lines of treatment of GERD and drugs used as antiemetics. 4.7.6. Outline the treatment lines for peptic ulcer, diarrhea, gall stones cases and outline treatment.
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. Examine the different regions of the abdomen. 4.8.2. Read x- rays and barium to recognize the anatomical landmarks, common diseases related to the gastrointestinal tract. 4.8.3. Perform the measurement of gastric motility. 4.8.4. Record and read a curve of GIT movement. 4.8.5. Comment on some changes such as: amplitude and rate of movement under effect of drug administration. 4.8.6. Practice estimation of the level of AST and ALT. 4.8.7. Interpret the results of normal and abnormal liver function tests. 4.8.8. Examine mounted slides or boxes to identify the most important arthropods of medical interest. 4.8.9. Interpret a pathology report of gastrointestinal diseases. 4.8.10. Identify some parasites or their stages by naked eyes (Jars). 4.8.11. Identify the common micro-organisms of gastrointestinal infections by microscopic examination, culture character, biochemical and serological reactions. 4.8.12. Label dissected structures of the gastrointestinal tract according to the present relations. 4.8.13. Differentiate between the consistency of arteries, veins & nerves. 4.8.14. Draw diagrams showing courses and distribution of main blood vessels related to gastrointestinal tract. 4.8.15. Draw diagrams showing different parts of GIT. 4.8.16. Identify the different parts and associated glands of GIT system under the microscope.

	4.8.17. Draw and label the structures they have seen under light microscope during practical classes. 4.8.18. Draw parasites in their different stages specially the diagnostic and infective stages through examination of microscopic slides. 4.8.19. Recognize gross and microscopic pictures of some GIT diseases aiming at reaching the correct diagnosis.

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.	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 ILOs
6.2	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
6.3	Identify opportunities and use various resources for learning.	6.3.1 Use information resources whether written or electronic efficiently for the educational process.

6.6	Effectively manage learning time and resources and set priorities.	6.6.1 6.6.2	Manage time and learning resources effectively. Apply priority setting in the learning process

III- Module Contents:

Theoretical		
Topic	**Teaching hours**	**Department**
Oral cavity (mouth & tongue)	1.5	Anatomy
Salivary glands & palate	1.5	Anatomy
Pharynx	1.5	Anatomy
Oesophagus & stomach,	1.5	Anatomy
small intestine1	1.5	Anatomy
small intestine2	1.5	Anatomy
Large intestine 1	1.5	Anatomy
Large intestine 2	1.5	Anatomy
Liver Biliary system1	1.5	Anatomy
Biliary system2 &Pancreas	1.5	Anatomy
Blood supply of gastrointestinal tract.	1.5	Anatomy
Development of gastrointestinal tract.	2.25	Anatomy
Histology of oral cavity	1.5	Histology
Histology of esophagous & stomach	1.5	Histology
Histology of parotid, submandibular, sublingual salivary glands &pancreas	1.5	Histology
Histology of the small intestine	1.5	Histology
Histology of large intestine & rectoanal junction	1.5	Histology
Histology of hepatocytes &hepatic lobules	1.5	Histology
Histology of gall bladder and bile drainage	1.5	Histology
Hepatic Trematodes (Fasciola)	1.5	Parasitology
Taenia - Ascaris Lumbricoides	1.5	Parasitology
Hook Worms - Strongyloides Stercoralis	1.5	Parasitology
Capillaria	1.5	Parasitology
Amoeba - Balantidium Coli	1.5	Parasitology
Giardia Lamblia	1.5	Parasitology
Intestinal Trematodes (Heterophys)	1.5	Parasitology
- Nematodes of Large Intestine	2.25	Parasitology

*** Cryptosporidium**	1.5	Parasitology
Oral Cavity and salivary glands	1.5	Pathology
Esophagus and stomach	1.5	Pathology
Diseases of small and large intestine	1.5	Pathology
Diseases of small and large intestine	1.5	Pathology
Diseases of the liver	1.5	Pathology
Diseases of the gall bladder and appendix	1.5	Pathology
Diseases of the pancreas and peritoneum	1.5	Pathology
Drug therapy for peptic Ulcer & GERD	1.5	Pharmacology
Antiemetics & prokinetics	1.5	Pharmacology
Purgatives	1.5	Pharmacology
Antidiarrheal	1.5	Pharmacology
Antiprotozoal drugs	1.5	Pharmacology
Drug therapy for inflammatory Bowel disease	1.5	Pharmacology
Drug therapy for complications of chronic liver disease	1.5	Pharmacology
Introduction *Control of function of GIT *Salivary secretion *swallowing	1.5	Physiology
Physiology of the stomach *vomiting	1.5	Physiology
Small and large intestine	1.5	Physiology
Pancreatic secretion	1.5	Physiology
The liver and billiary secretion	1.5	Physiology
Gastroenteritis and	1.5	Microbiology
Diarrheal Diseases	1.5	Microbiology
Food poisoning 1	2.25	Microbiology
Food poisoning 2	1.5	Microbiology
Total	**78.75**	
Practical		
	Teaching hours	**Department**
Oral cavity (Lip, tongue, papillae folliate)	1.5	Anatomy
Pharynx.	1.5	Anatomy
Oesophagus	1.5	Anatomy
stomach	1.5	Anatomy
Intestine	1.5	Anatomy
Liver	1.5	Anatomy
Biliary system	1.5	Anatomy
Pancreas	1.5	Anatomy
Peritoneum	1.5	Anatomy
Blood supply of GIT	1.5	Anatomy

Radiology	1.5	Anatomy
Revision	2.25	Anatomy
Hepatic trematodes (Fasciola)	1.5	Parasitology
Intestinal Trematodes (Heterophys)	2.25	Parasitology
Tenia Ascaris Lumbricoides	1.5	Parasitology
Hook Worms - Strongyloides Stercoralis	1.5	Parasitology
Capillaria nematodes of large Intestine	1.5	Parasitology
Amoeba Balantidium coli	1.5	Parasitology
Giardia Lamblia * Cryptosporidium	1.5	Parasitology
Lab diagnosis of Intestinal Parasites	1.5	Parasitology
D. caninum * H. nana * H. diminuta	1.5	Parasitology
Lip, Tongue and papilla foliate	1.5	Histology
Esophagus dog, cat and GOJ	1.5	Histology
Fundus, Pylorus &PDJ	1.5	Histology
Duodenum, ileum, large intestine & appendix	1.5	Histology
Parotid gland, mixed salivary gland &pancreas	1.5	Histology
Human liver and gall bladder	1.5	Histology
Revision	1.5	Histology
Oral cavity and salivary glands	1.5	Pathology
Stomach	1.5	Pathology
Small intestine	1.5	Pathology
Large intestine	1.5	Pathology
Diseases of liver, gall bladder	1.5	Pathology
Appendix, pancreas and peritoneum	1.5	Pathology
Revision	1.5	Pathology
Case of peptic ulcer	1.5	Pharmacology
Treatment of diarrhea	1.5	Pharmacology
Treatment of GIT infections	1.5	Pharmacology
Case of portal hypertension	1.5	Pharmacology
Case of esophageal varices	1.5	Pharmacology
Case of Ulcerative colitis	1.5	Pharmacology
Revision	1.5	Pharmacology
Record of Intestinal Motility	1.5	Physiology
Demonstration of autonomic receptors	1.5	Physiology
Gastric function tests	1.5	Physiology
Liver function tests	1.5	Physiology
Revision	1.5	Physiology
Food-borne infection	2.25	Microbiology
Gastroenteritis -	1.5	Microbiology
Diarrheal diseases - and hepatitis	1.5	Microbiology

Revision	1.5	Microbiology
Total	78.75	

IV– Teaching and learning Methods

1. Theoretical Teaching:

- **Interactive lectures**
- **The lecturers are conducted using:**
  a. Brain storming
  b. Audiovisual aids through animations and diagrams
  c. Interaction with the students through questions
  d. Student engagement with discussion
  e. Case based Learning

2. Practical Teaching: conducted using:

- Practical sessions

V- Student Assessment:

A. Attendance criteria:

The minimum acceptable attendance is 75%, otherwise students failing toreach 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 and Scheule:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% written at the end of and periodicals includingproblem 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 Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, givea eason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Written exam.	**63**	**40%**
Final Practical exam.	**47.25**	**30%**
Activities	**47.25**	**30%**
Total	**157.5**	**100%**

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. 4th 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.

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, 5th 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 Lerchefield 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, 17th 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 4th 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. 10th Edition. By: Larry Roberts, John Janovy, Steven Adler. McGraw-Hill Education, 2015.
- Paniker's Textbook of Medical Parasitology, 9th 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- Equipped labs with microscopes, slides, boxes and jars..
3- Faculty library for textbooks & electronic library for web search.
4- Audiovisual aids as boards, data show and computers
5- Dissecting room including cadavers, bones and plastic models
6- Museum specimens
7- Pharmacology labs with equipment and materials

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

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
						Formative Assessment		Summative Assessment				
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	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 4.1.22	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
4.7	4.8.1 to 4.7.6	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.19			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. Ahmed Gaifar	**Program Coordinator: Prof. Dr. Zeinab Kasemy**

CNS & Special Senses (I)

University: Menoufia **Faculty: Medicine**

A-Administrative information

Module Title: CNS& Special Senses (1)

Code No: MED 206

Department offering the course: Anatomy and Physiology

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

Academic year: second year

Semester: IV

Date of specification: 2023

Date of approval by departmentscouncil:2023

Date of approval by faculty council: 2023

Total points: 7 . 5 credit points / 5 weeks.

	Teaching hours		
	Lectures	Practical	Activities
Physiology	**33.75**	**33.75**	**13.6**
Anatomy	**22.5**	**22.5**	**6**
Total	**56.25**	**56.25**	**19.6**
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:

This multidisciplinary module aims to integrate knowledge and practical skills from various departments to enable students to comprehend the anatomical basics, physiological processes, relevant

to the central nervous system and special vision as a special sense. These knowledge and skills are essential for future clinical practice and patient care regarding assessment, diagnosis, and management of CNS, vision, and hearing disorders

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.	3.1.1 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
4.1	Describe the normal structure of the body and its major organ systems and explain their functions.	4.1.1. Recognize the functional basis of the vestibular apparatus and its role in maintaining equilibrium. 4.1.2. Describe the function of the outer, middle and inner ear structures in the mechano-electrical transduction process of sound energy into nerve impulses. 4.1.3. Recognize the location and structure of thermo-receptors. 4.1.4. Describe afferent pathways of temperature. 4.1.5. Recognize the cutaneous and proprioceptive mechanoreceptors. 4.1.6. Identify cutaneous and proprioceptive mechanoreceptors pathways and functions. 4.1.7. Recognize the location and structure of pain receptors.

4.1.8. Describe afferent pathways of pain sensation.
4.1.9. Describe coding for sensations.
4.1.10. Recognize the somatic sensations from the head and their pathways.
4.1.11. Identify the location and functions of different areas of sensory cortex.
4.1.12. Identify the functional basis of lower motor neurons in the spinal cord and brainstem.
4.1.13. Describe the anatomical location, function, and afferent neurotransmission of muscle spindle and Golgi tendon organs.
4.1.14. Identify the function and pathways of the pyramidal and extrapyramidal tracts to its lesion.
4.1.15. Relate the function and location of the basal ganglia to its lesion.
4.1.16. Describe the functions and location of the cerebellum and relate it to its lesions.
4.1.17. Describe the intellectual function of the brain as memory learning and language.
4.1.18. Outline its integration with the ANS.
4.1.19. Identify the anatomical landmarks of the cranial cavity
4.1.20. Describe the anatomy of the cerebral cortex including white and grey matter.
4.1.21. Identify the anatomical details of the basal Gang., diencephalon & limbic system
4.1.22. Describe the anatomy of the cerebellum
4.1.23. Identify the divisions of the brain stems and its included nuclei and tracts
4.1.24. Outline the ventricular system including CSF formation and drainage
4.1.25. Identify different meningeal coverings of the brain.
4.1.26. Describe the anatomy of the spinal cord and its included tracts
4.1.27. Outline the blood supply of the brain and spinal cord Bl. supply of brain
4.1.28. Determine the normal development of CNS, ear and eyeball and their congenital anomalies
4.1.29. Describe the anatomy and development of the ear

		4.1.30. Describe the anatomy of the orbit and development of the eye 4.1.31. Classify receptors according to their location, function, morphology, and adequate stimulus. 4.1.32. Describe the physiology of the optical system of the eye and the mechanism of vision 4.1.33. Interpret the anatomical and physiological knowledge with clinical signs seen in cases of Parkinsonism, ataxia, and strokes. 4.1.34. Explain and describe the image formation by the eye.
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. Classify disorders of visual acuity 4.6.2. Identify different disorders of color vision.
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. Identify dissected specimens or plastic models of the cerebral cortex, cerebellum, brain stem, and spinal cord. 4.8.2. Sketch diagrams for different parts of the central nervous system. 4.8.3. Demonstrate testing color vision. 4.8.4. Demonstrate uses of ophthalmoscope. 4.8.5. Examine the visual field. 4.9. Read brain angiography to recognize the anatomical landmarks, common diseases related to the central nervous system.

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-	5.2.1 Demonstrate respect towards colleagues. 5.2.2 Apply teamwork in educational and professional encounters

	making for effective patient management.

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

Key competency		Module ILOs
6.2	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
6.3	Identify opportunities and use various resources for learning.	6.3.1 Use information resources whether written or electronic efficiently for the educational process.
6.6	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**
Receptors, classification and action	1.5	**Physiology**
Receptors sensory discharge, adaptation sensory code	1.5	**Physiology**
Mechanoreceptive sensation	1.5	**Physiology**
Thermoreceptive sensation	1.5	**Physiology**
Pain sensation	1.5	**Physiology**
Somatic sensation from the head and headache	1.5	**Physiology**
Thalamus connection	1.5	**Physiology**
Thalamus lesion	1.5	**Physiology**
Sensory cerebral cortex	1.5	**Physiology**
Sensory lesion	1.5	**Physiology**
Motor function of the spinal cord 1	1.5	**Physiology**
Motor function of the spinal cord 2	1.5	**Physiology**
Stretch reflex	1.5	**Physiology**
Spinal cord lesion	1.5	**Physiology**
Reticular formation and cerebral cortex 1	1.5	**Physiology**

Reticular formation and cerebral cortex 2	1.5	**Physiology**
Descending tracts	1.5	**Physiology**
UMNL	2	**Physiology**
LMNL	1.75	**Physiology**
Basal ganglia 1	1.5	**Physiology**
Basal ganglia 2	1.5	**Physiology**
Cerebellum	1.5	**Physiology**
Cranial cavity	1.5	**Anatomy**
Cerebral cortex 1	1.5	**Anatomy**
Cerebral cortex2	1.5	**Anatomy**
White mater	1.5	**Anatomy**
Basal Gang.	1.5	**Anatomy**
Diencephalon	1.5	**Anatomy**
Limbic system	1.5	**Anatomy**
Anatomy of the cerebellum	1.5	**Anatomy**
Anatomy of brain stem 1	1.5	**Anatomy**
Brain stem 2	1.5	**Anatomy**
ventricular syst., CSF & meninges	1.5	**Anatomy**
Spinal cord & Bl. supply of brain	1.5	**Anatomy**
Bl. supp. and CNS development	1.5	**Anatomy**
Anatomy and development of the ear	1.5	**Anatomy**
Anatomy of the orbit and development of the eye	1.5	**Anatomy**
Total	**56.25**	
Practical		
Topic	**Teaching hours**	**Department**
CNS introduction	1.5	**Physiology**
Examination of touch	1.5	**Physiology**
Examination of pressure sensation	1.5	**Physiology**
Examination of pain	1.5	**Physiology**
Examination of temperature sensation	1.5	**Physiology**
Examination of vibration	1.5	**Physiology**
Examination of sense of position	1.5	**Physiology**
Revision	1.5	**Physiology**
Examination of muscle state	1.5	**Physiology**
Examination of muscle tone	1.5	**Physiology**
Examination of muscle power	1.5	**Physiology**
Examination of superficial reflexes	1.5	**Physiology**
Examination of deep reflexes	1.5	**Physiology**
Examination of coordination	1.5	**Physiology**
Examination of gate	1.5	**Physiology**
Examination of abnormal gate	1.5	**Physiology**
Abnormal movements	1.5	**Physiology**
Revision	1.5	**Physiology**
Revision	1.5	**Physiology**
Revision	1.5	**Physiology**
Revision	1.5	**Physiology**

Revision	2.25	**Physiology**
Anatomy of norma basalis externa	1.5	**Anatomy**
Anatomy of norma basalis interna	1.5	**Anatomy**
Anatomy of cranial cavity	1.5	**Anatomy**
Anatomy of cerebral cortex (1)	1.5	**Anatomy**
Anatomy of cerebral cortex (2)	1.5	**Anatomy**
Basal ganglia	1.5	**Anatomy**
Diencephalon	1.5	**Anatomy**
Cerebellum	1.5	**Anatomy**
Anatomy of brain stem (1)	1.5	**Anatomy**
Anatomy of brain stem (2)	1.5	**Anatomy**
Anatomy of ventricular system, CSF	1.5	**Anatomy**
Anatomy of spinal cord	1.5	**Anatomy**
Blood supply and radiology	1.5	**Anatomy**
Anatomy of ear.	1.5	**Anatomy**
Anatomy of the orbit	1.5	**Anatomy**
Total	**56.25**	

IV– Teaching and learning Methods

1. Theoretical Teaching:

- **Interactive lectures**
- **The lecturers are conducted using:**
    a. Brain storming
    b. Audiovisual aids through animations and diagrams
    c. Interaction with the students through questions
    d. Student engagement with discussion
    e. Case based Learning

2. Practical Teaching: conducted using:

- Practical sessions

VI- Student Assessment:

A. Attendance criteria:

The minimum acceptable attendance is 75%, otherwise students failing toreach 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 and Schedule:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% written at the end of and periodicals includingproblem 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 Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, giveæason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Written exam.	**45**	**40%**
Final Practical exam.	**33.75**	**30%**
Activities	**33.75**	**30%**
Total	**112.5**	**100%**

E- Grading 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**
- **Essential Books:**

Anatomy:

- Gray's Anatomy for Students. 4th 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.

VII- Facilities required for teaching and learning:

1- Faculty Lecture halls
2- Equipped labs with microscopes, slides, boxes and jars..
3- Faculty library for textbooks & electronic library for web search.
4- Audiovisual aids as boards, data show and computers
5- Dissecting room including cadavers, bones and plastic models
6- Museum specimens

Module Coordinator:Dr. Marwa Lasheen	**Program Coordinator: Prof. Dr. Zeinab Kasemy**

Central nervous system and special senses (2)

University: Menoufia **Faculty: Medicine**

A-Administrative information

Module Title: Central nervous system and special senses (2)

Code No: MED 207

Department offering the Module: Histology, Physiology, Pharmacology, Pathology, and Parasitology

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

Academic year/level: second

Semester: Semester IV

Date of specification: 2023.

Date of approval by Departmental Council: 2023

Date of approval by faculty council: 2023

Total points: 6 credit points/ 4 weeks

	Teaching hours

	Lectures	Practical	Activities
Histology	7.5	7.5	3
Physiology	7.5	7.5	3
Pharmacology	15	15	6
Pathology	7.5	7.5	3
Parasitology	7.5	7.5	3
Total	45	45	18

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:

This multidisciplinary module aims to integrate knowledge and practical skills from various departments to enable students to comprehend the physiological processes, histological structure, microscopic and macroscopic pathological alterations and parasitic infections relevant to the central nervous system with its motor and sensory functions, and special senses including hearing, smell, and taste. These knowledge and skills are essential for future clinical practice and patient care regarding assessment, diagnosis, and management of motor and sensory disorders

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.	3.1.1 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		Learning Outcomes
4.1	Describe the normal structure of the body and its major organ systems and explain their functions.	4.1.1. Recognize the basic histological structure and characteristics of each eye coat. 4.1.2. Identify the basic histological structure of lens, aqueous humor & vitreous humor. 4.1.3. Identify the basic histological structure of eyelid & lacrimal gland. 4.1.4. Describe the functional capabilities of each component & tissue type of the eye and relate them to their structure. 4.1.5. Identify the basic histological structure of the external ear. 4.1.6. Recognize the basic histological structure of the middle ear. 4.1.7. Identify the basic histological structure of the inner ear. 4.1.8. Describe the functional capabilities of each component & tissue type of the ear and relate them to their structure. 4.1.9. Identify the components of the labyrinth innervated by the eighth cranial nerve. 4.1.10. Integrate basic histological, physiological, pathological and parasitological data with clinical data. 4.1.11. Relate the histological structure of eye and ear to its specific functions and employ these data with clinical cases whenever possible. 4.1.12. Integrate the physiological functions of CNS and special sense organs with other basic and clinical sciences. 4.1.13. Interpret the electrical activity of the brain.

		4.1.14. Relate the functions of hypothalamus to body homeostasis.
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. Identify brain trauma and injury of CNS. 4.5.2. Recognize the geographical distribution, morphology of different stages and life cycle of polymorphic and monomorphic trypanosomes. 4.5.3. Describe the mode of infection and the pathogenesis of trypanosomes. 4.5.4. Relate the pathogenesis of trypanosomiasis to different parasitic stages. 4.5.5. Distinguish clinical symptoms and signs of trypanosomiasis. 4.5.6. Describe diagnostic methods of trypanosomiasis. 4.5.7. Outline treatment of trypanosomiasis. 4.5.8. Identify methods of prevention and control of trypanosomiasis. 4.5.9. Identify the geographical distribution, morphology of different stages and life cycle of free-living amoebae. 4.5.10. Describe the mode of infection and the pathogenesis of free-living amoebae. 4.5.11. Distinguish clinical symptoms and signs of free-living amoebae infections. 4.5.12. Describe diagnostic methods of free-living amoebae infections. 4.5.13. Outline treatment of free-living amoebae infections. 4.5.14. Conclude methods of prevention and control of free-living amoebae infections. 4.5.15. Identify the geographical distribution, morphology of different stages and life cycle

		of Loa loa, Onchocercus volvulous and Dracunculus medinensis. 4.5.16. Describe the mode of infection and pathogenesis of these worms. 4.5.17. Relate the pathogenesis of Loa loa, Onchocercus volvulous and Dracunculus medinensis to different parasitic stages. 4.5.18. Describe clinical symptoms and signs of Loa loa, Onchocercus volvulous and Dracunculus medinensis infections. 4.5.19. Describe diagnostic methods of Loa loa, Onchocercus volvulous and Dracunculus medinensis infections. 4.5.20. Outline treatment of Loa loa, Onchocercus volvulous and Dracunculus medinensis infections. 4.5.21. Conclude methods of prevention and control of Loa loa, Onchocercus volvulous and Dracunculus medinensis infections. 4.5.22. Describe the etiology of meningitis, manifestations, fate, and complications 4.5.23. Identify the etiology of brain abscess, manifestations, fate, and complications 4.5.24. Describe the etiology of encephalitis, manifestations, fate, and complications
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. Recognize unique characteristics of CNS tumors including its classification, and WHO grading system. 4.6.2. Recognize Gliomas. its gross and microscopic picture, and behavior 4.6.3. Identify medulloblastoma, its gross and microscopic picture, and behavior 4.6.4. Recognize meningioma, its gross and microscopic picture, and behavior 4.6.5. Describe peripheral nerve sheath tumors.

		4.6.6. Analyze theoretical information to select the most appropriate diagnosis from differential diagnosis. 4.6.7. Solve problems through case study of certain CNS and special senses diseases. 4.6.8. Discover the outcome of disturbed function of the CNS and special senses.
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. Explain pharmacology of drugs used in treatment of various diseases of CNS and drugs acting on the eye. 4.7.2. Explain the main pharmacokinetics & adverse effects of carbamazepine, phenytoin & valproate. 4.7.3. List the adverse effects of chlorpromazine, clozapine, haloperidol, thioridazine, and ziprasidone 4.7.4. Explain characteristics of commonly used antidepressants in terms of pharmacokinetics, mechanisms of action, pharmacologic effects, clinical uses, toxic effects with chronic therapy or acute overdose and drug interactions. 4.7.5. Design the clinical uses & identify adverse effects of major antiparkinsonian agents. 4.7.6. Design for plane of management of status epilepticus.

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. Use the light microscope efficiently to identify the histological structure of cornea, retina & eyelid. 4.8.2. Use the light microscope efficiently to differentiate between layers of the cornea, retina & eyelid. 4.8.3. Use the light microscope efficiently to identify the histological structure of cochlea, cochlear duct & organ of Corti. 4.8.4. Illustrate the structures they have seen under light microscope during practical classes. 4.8.5. Examine the hearing receptors. 4.8.6. Perform a systematic examination of vibration. 4.8.7. Examine smell and taste receptors 4.8.8. Perform a systematic examination of the crude touch receptors. 4.8.9. Examine different types of fine touch. 4.8.10. Evaluate the cutaneous pain receptors. 4.8.11. Examine the pain receptors in the deep pain sensation. 4.8.12. Perform a systematic examination of the temperature receptors. 4.8.13. Assess the muscle state and tonicity. 4.8.14. Evaluate the state of muscle power. 4.8.15. Assess the superficial reflexes. 4.8.16. Perform a systematic examination of the tendons jerk. 4.8.17. Evaluate sense of position. 4.8.18. Perform different coordination tests. 4.8.19. Differentiate gait disorders and the causing disease. 4.8.20. Examine and identify gross and microscopic findings of meningioma. 4.8.21. Identify microscopic findings of plexiform neurofibroma and schwannoma. 4.8.22. Recognize microscopic findings of Glioblastoma and brain metastatic carcinoma.

	4.8.23. Examine different microscopic slides of parasites affecting CNS and special sense organs. 4.8.24. Illustrate different parasitic stages mainly the diagnostic and infective stages. 4.8.25. Perform thin and thick blood films. 4.8.26. Illustrate diagnostic parts of flies' larvae. 4.8.27. Use swabs to take samples of free-living amoebae. 4.8.28. Interpret a pathology report of some CNS diseases. 4.8.29. Predict the diagnosis of different diseases of CNS based on the underlying gross and microscopic pictures.

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 re-sponsibilities 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 ILOs
6.2 Develop, implement, monitor, and revise a personal learning	6.2.1 Formulate a learning plan for the module in focus. 6.2.2 Apply the learning plan respecting emerging priorities and encounters

	plan to enhance professional practice.	
6.3	Identify opportunities and use various resources for learning.	6.3.1 Use information resources whether written or electronic efficiently for the educational process.
6.6	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**
Vision mydriasis, myosis, light and accommodation reflex pathway	1.5	**Physiology**
Retina, visual pathway, colour, and binocular vision	1.5	**Physiology**
Hearing, auditory pathway,	1.5	**Physiology**
labyrinth and equilibrium	1.5	**Physiology**
The hypothalamus and limbic system, higher brain functions	1.5	**Physiology**
Histology of the eye I	1.5	**Histology**
Histology of the eye II	1.5	**Histology**
Histology of the ear	1.5	**Histology**
Overview on the Histology of CNS	1.5	**Histology**
Histology of Neuroglia of CNS	1.5	**Histology**
Inflammatory CNS diseases 1	1.5	**Pathology**
Inflammatory CNS diseases 2	1.5	**Pathology**
Vascular CNS diseases	1.5	**Pathology**
Tumours of CNS 1	1.5	**Pathology**
Tumours of CNS 2	1.5	**Pathology**
Sedative hypnotics 1	1.5	**Pharmacology**
Sedative hypnotics 2	1.5	**Pharmacology**

Opioid analgesics	1.5	**Pharmacology**
Antiepileptics1	1.5	**Pharmacology**
Antiepileptics2	1.5	**Pharmacology**
Antidepressants	1.5	**Pharmacology**
Antipsychotics	1.5	**Pharmacology**
Anti-parkinsonian Drugs1	1.5	**Pharmacology**
Anti-parkinsonian Drugs2	1.5	**Pharmacology**
Local anesthetics	1.5	**Pharmacology**
Toxoplasmosis	1.5	**Parasitology**
Free living amoebae, Loa loa, and Onchocercus	1.5	**Parasitology**
Mayiasis and flies	1.5	**Parasitology**
Coenurosis, cysticercosis and Hydatid disease	1.5	**Parasitology**
Visceral and cutaneous larvae migrans	1.5	**Parasitology**
Total	**45**	
PRACTICAL		
TOPIC	**TEACHING HOURS**	**DEPARTMENT**
Vision 1	1.5	**Physiology**
Vision 2	1.5	**Physiology**
Hearing tests	1.5	**Physiology**
Smell and Taste examination	1.5	**Physiology**
Revision	1.5	**Physiology**
Organ of Corti	1.5	**Histology**
Eyeball	1.5	**Histology**
Cornea & retina	1.5	**Histology**
Cerebrum and cerebellum	1.5	**Histology**
Revision	1.5	**Histology**
CNS tumours	1.5	**Pathology**

Peripheral nerve sheath tumours1	1.5	**Pathology**
Peripheral nerve sheath tumours2	1.5	**Pathology**
Meningioma, and metastatic tumours	1.5	**Pathology**
Revision	1.5	**Pathology**
Case of migraine	1.5	**Pharmacology**
Drugs acting on the eye	1.5	**Pharmacology**
Treatment of meningitis	1.5	**Pharmacology**
Case of meningitis	1.5	**Pharmacology**
Case of epilepsy	1.5	**Pharmacology**
Case of Parkinson's disease	1.5	**Pharmacology**
Treatment of chronic pain	1.5	**Pharmacology**
Adverse effects of antipsychotic drugs	1.5	**Pharmacology**
Pre-anesthetic medications	1.5	**Pharmacology**
Revision	1.5	**Pharmacology**
Toxoplasmosis	1.5	**Parasitology**
Free living amoebae, Loa loa, and Onchocercus	1.5	**Parasitology**
Mayiasis and flies	1.5	**Parasitology**
Coenurosis, cysticercosis and Hydatid disease	1.5	**Parasitology**
Visceral and cutaneous larvae migrans	1.5	**Parasitology**
Total	45	

IV– Teaching and learning Methods

1. Theoretical Teaching:

- **Interactive lectures**
- **The lecturers are conducted using:**
  a. Brain storming
  b. Audiovisual aids through animations and diagrams
  c. Interaction with the students through questions
  d. Student engagement with discussion

e. Case based Learning

2. Practical Teaching: conducted using:

- Practical sessions

VI- Student Assessment:

A. Attendance criteria:

The minimum acceptable attendance is 75%, otherwise students failing toreach 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 and schedule:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% written at the end of and periodicals includingproblem 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 Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, giveæason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Written exam.	**36**	**40%**
Final Practical exam.	**27**	**30%**
Activities	**27**	**30%**
Total	**90**	**100%**

E- Grading 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**
- **Essential Books:**

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 Lerchefield and Chris Giordian . Lippincott Williams & Wilkins, 2022.
- Essentials of Medical Pharmacology 8th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2018.

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.

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, 5th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2020

Parasitology:

- Foundations of Parasitology. 10th Edition. By: Larry Roberts, John Janovy, Steven Adler. McGraw-Hill Education, 2015.
- Paniker's Textbook of Medical Parasitology, 9th 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- Equipped labs with microscopes, slides, boxes and jars.
3- Faculty library for textbooks & electronic library for web search.
4- Audiovisual aids as boards, data show and computers

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

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
						Formative Assessment		Summative Assessment				
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	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 4.1.14	x	x		x	x		x		x	x	x
4.5	4.5.24	x	x		x	x		x		x	x	x
4.6	4.6.1 to 4.6.10	x	x		x	x		x		x	x	x
4.7	4.8.1 to 4.7.6	x	x		x	x		x		x	x	x
4.8	4.8.1 to4.8.31			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 Ahmed AboKhalil	**Program Coordinator: Prof. Dr. Zeinab Kasemy**

Basic Clinical Skills II

University: Menoufia **Faculty: Medicine**

A-Administrative information

Title: Basic Clinical Skills II

Code No: MED 208

Department offering the Module: Internal Medicine

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

Academic year/level: Second level

Semester: Semester IV

Date of specification: 2023.

Date of approval by Department Council: 2023

Date of approval by Faculty Council: 2023

Credit points:4 Credit points/ Longitudinal

Teaching Hours: 60 hours/ Practical

Professional Information

I. Aim of the Module:

To provide the students with a group of the basic clinical skills which are essential for his future practice as a general practitioner

II – Learning Outcomes of the Module

Competency Area 1: The graduate as a health care provider.

Key competency		Module LOs
1.1	Take and record a structured, patient-centered history.	1.1.1. Conduct history taking including social and psychological history 1.1.2. Apply proper communication skills with patient through different steps of the interview. 1.1.3. Practice patient education during interview with the patient 1.1.4. Demonstrate appropriate basic behavior for a clinical medical student. 1.1.5. Record and present a basic history from a patient with symptoms referable to cardiovascular, respiratory, gastrointestinal, renal and neurological systems enough for entry to the third year of the Module. 1.1.6. Demonstrate and apply knowledge of the presentation/s to support inclusion in a differential diagnosis. 1.1.7. Demonstrate respect to patient's rights throughout the interview 1.1.8. Practice fulfilling data of family health record 1.1.9. Apply professional attire, general looking and hygiene 1.1.10. Establish patients' trust and confidentiality 1.1.11. Interpret family health record.
1.2	Adopt an empathic and holistic approach to the patients and their problems.	1.2.1. Demonstrate empathy in patient consultation 1.2.2. Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities. 1.2.3. Apply the ethics of medical practice when dealing with patients and colleagues. 1.2.4. a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community.

	1.2.5. Demonstrate in history taking, the integration of physical, social and psychological factors both in the causation and effects of disease.
1.4 Perform appropriately-timed full physical examination of patients, appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive.	1.4.9. Perform pulse assessment in a correct manner 1.4.10. Practice blood pressure measurement 1.4.11. Measure temperature and respiratory rate in a correct manner 1.4.12. Perform lump examination 1.4.13. Practice lymph node examination 1.4.14. Interpret the clinical signs detected 1.4.15. Apply the ethics of medical practice when examining patients. 1.4.16. Apply proper infection control when dealing with patients.

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.	3.1.5 Demonstrate a professional. respectful attitude while dealing with colleagues, and staff members 3.1.6 Demonstrate commitment and integrity while preparing the coursework and assignments
3.4 Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural or ethnic backgrounds, or their disabilities.	3.4.3 Demonstrate respect to social, culture, and ethnic difference of patients treating them equally.
3.8 Refer patients to the appropriate health facility at the appropriate stage.	3.8.3 Identify the rules of referral for complex and undiagnosed cases

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

Key competency		Module LOs	
4.4	Explain normal human behavior and apply theoretical frameworks of psychology to interpret the varied responses of individuals, groups and societies to disease.	4.4.7. 4.4.8. 4.4.9.	Define psychosocial, cognitive ,emotional and moral development in different stages of growth in children ,adolescent ,adult and geriatric Describe different characteristics of development at its four fields (psychosocial, cognitive ,emotional and moral development). Outline eight stages of psychosocial development and the four stages of cognitive development

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.	5.2.5 5.2.6	Demonstrate respect towards colleagues. Apply teamwork in educational and professional encounters

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

Key competency		Module ILOs	
6.2	Develop, implement, monitor, and revise a personal learning	6.2.5 6.2.6	Formulate a learning plan for the module in focus Apply the learning plan respecting emerging priorities and encounters

	plan to enhance professional practice.		
6.3	Identify opportunities and use various resources for learning.	6.3.3	Use information resources either written or electronic efficiently for the educational process.
6.6	Effectively manage learning time and resources and set priorities.	6.6.5 6.6.6	Manage time and learning resources effectively. Apply priority setting in the learning process

III. Module Contents:

Clinical	
Topic	**Teaching hours**
History taking _	9
General examination	9
Vital signs Assignment	7.5
head and neck examination	9
Upper limb examination	9
Lower limb examination	7.5
Revision	9
Total	**60**

IV– Teaching and Learning Methods:

Clinical Teaching:

c) **Clinical sessions: using**
- Web based video and Multimedia applications
- Simulated Patients
- Problem solving

d) **Skill Lab**

V- Student Assessment:

A. Attendance criteria:

The minimum acceptable attendance is 75%, otherwise students failing toreach 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 and Schedule:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% an OSCE exam at the end of the module	At the end of the module
		10% Participation in clinical activities.	During the module
Final Clinical exam	70%	OSCE Exam	At the end of the semester

D- Weighing of Assessment:

Method of Assessment |	Marks	Percentage
Final Clinical exam.	**42**	**70%**
Coursework	**18**	**30%**
Total	**60**	**100%**

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.**
- **Essential Books:**
  - Macleod's Clinical Examination, 13th Edition. By: Graham Douglas , Fiona Nicol , Colin Robertson. Churchill Livingstone; 2013
  - Bates' Guide To Physical Examination and History Taking (Lippincott Connect) 11th Edition. By: Lynn S. Bickley, Peter G. Szilagyi. Lippincott Williams & Wilkins; 2012

VII- Facilities required for teaching and learning:

1- Audiovisual aids as boards, data show and computers.
2- Clinical round teaching rooms.
3- Skill Lab

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

Key Competencies	Module Learning Outcomes	Teaching Methods		Assessment Methods						
				Formative Assessment		Summative Assessment				
		Clinical Rounds	Skill Lab	Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1,1,13	x	x							
1.2	1.2.1 to 1.2.5	x								
1.4	1.4.1 to 1.4.8	x	x		x		x		x	x
3.1	3.1.1 to 3.1.2	x			x		x			x
3.4	3.4.1	x			x		x			x
3.8	3.8.1	x			x		x			x
5.2	5.2.1, 5.2.2	x						x		x
5.10	5.10.1 to 5.10.3	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. Enas zahran	**Program Coordinator: Prof. Dr. Zeinab Kasemy**