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



**THE
SPECIAL
PROGRAM**



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توصيف برنامج بكالوريوس الطب و الجراحة العام (البرنامج المتميز) ساعات معتمدة

عميد الكلية	منسق البرنامج	لجنة المعايير الاكاديمية
أ.د/ محمد فهمي النعماني	أ.د زينب عبدالعزيز قاسمي	ا.م.د. أحمد حمدان

A-Basic information

- 1. Program Title:** Bachelor degree of Medicine and Surgery 2018-2019
- 2. Program Type:** Single
- 3. Department (s):** 33 departments (Integrated system)

N.	Department	N.	Department
1	Anatomy & Embryology	18	Tropical medicine
2	Histology	19	Dermatology & Venerology
3	Physiology	20	Clinical Pathology
4	Biochemistry	21	Radiology
5	Pathology	22	Pediatrics
6	Pharmacology	23	General Surgery
7	Microbiology & Immunology	24	Urology
8	Parasitology	25	Orthopedics
9	Ophthalmology	26	Cardio-thoracic Surgery
10	E.N.T	27	Neuro-surgery
11	Forensic medicine & Toxicology	28	Plastic Surgery
12	Community medicine	29	Oncology & Radiotherapy
13	Family medicine	30	Anaesthesia and Intensive Care
14	Internal medicine	31	Obstetrics & Gynaecology
15	Psychiatry & Neurology	32	Physical medicine, rheumatology and rehabilitation
16	Chest	33	Emergency Medicine
17	Cardiovascular medicine		

- 4. Coordinator:** Prof. Dr. Zeinab Kasemy
- 5. External Evaluator(s):** Prof. Dr. Mona Ghaly
- 6. Date of Program specification approval:** 8 -2018.

B-Professional information

I- Program Aims:

The program aims to provide graduate physicians who can:

- a- Provide primary health care as family physician/general practitioner, with emphasis on disease prevention and health promotion.
- b- Achieve the clinical and practical standards through a patient-centered care required to compete in the national labor market.
- c- Adhere to professionalism and adopt the ethics of medical practice and respect the religious, cultural and humanity values.
- d- Collaborate with other health care professionals, appreciating their role, respecting the hierarchy of the health care system with acquisition of the skills of professionalism and leadership.
- e- Continue self-learning and research to cope with the advancement in the medical field.
- f- Employ the clinical practice for the service and improvement of the community.

II- Academic Standards:

The National Academic Reference Standards (NARS) for medicine approved by the National Authority for Quality Assurance and Accreditation of Education (2017) is used as the academic reference standards

The aims and Learning outcomes of the current program are comparable with the attributes of medical graduate (Annex 1) and competency areas provided by the national academic reference standards.

Competency areas & Key competencies of NARS 2017

Competency Area I: The graduate as a health care provider:

The graduate should provide quality, safe, patient-centered care, drawing upon his/her integrated knowledge and clinical skills, and adhering to professional values. The graduate should collect and interpret information, make clinical decisions, and carry out diagnostic and therapeutic interventions - with an understanding of the limits of his/her expertise- considering the patient's circumstances and preferences as well as the availability of resources. The graduate should be able to:

- 1.1. Take and record a structured, patient centered history.
- 1.2. Adopt an empathic and holistic approach to the patients and their problems.
- 1.3. Assess the mental state of the patient.
- 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.
- 1.5. Prioritize issues to be addressed in a patient encounter.

1.6. Select the appropriate investigations and interpret their results taking into consideration cost/effectiveness factors.

1.7. Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.

1.8. Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.

1.9. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).

1.10. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.

1.11. Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.

1.12. Adopt strategies and apply measures that promote patient safety.

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.

1.14. Respect patients' rights and involve them and /or their families/carers in management decisions.

1.15. Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.

1.16. Apply the appropriate pharmacological and nonpharmacological approaches to alleviate pain and provide palliative care for seriously ill people, aiming to relieve their suffering and improve their quality of life.

1.17. Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification

Competency Area II: The graduate as a health promoter

The graduate should advocate for the development of community and individual measures which promote the state of well-being, he/she should empower individuals and communities to engage in healthy behaviors and put his/her knowledge and skills to prevent diseases, reduce deaths and promote quality lifestyle. The graduate should be able to:

2.1 Identify the basic determinants of health and principles of health improvement.

2.2 Recognize the economic, psychological, social, and cultural factors that interfere with wellbeing.

2.3 Discuss the role of nutrition and physical activity in health.

2.4 Identify the major health risks in his/her community, including demographic, occupational and environmental risks, endemic diseases, and prevalent chronic diseases.

2.5 Describe the principles of disease prevention, and empower communities, specific groups or individuals by raising their awareness and building their capacity.

2.6 Recognize the epidemiology of common diseases within his/her community and apply the systematic approaches useful in reducing the incidence and prevalence of those diseases.

2.7 Provide care for specific groups including pregnant women, newborns and infants, adolescents and the elderly.

2.8 Identify vulnerable individuals that may be suffering from abuse or neglect and take the proper actions to safeguard their welfare.

2.9 Adopt suitable measures for infection control.

Competency Area III: The graduate as a professional

The graduate should adhere to the professional and ethical codes, standards of practice, and laws governing practice. The graduate should be able to:

- 3.1. Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.
- 3.2. Adhere to the professional standards and laws governing the practice and abide by the national code of ethics issued by the Egyptian Medical Syndicate.
- 3.3. Respect the different cultural beliefs and values in the community they serve.
- 3.4. Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural, ethnic backgrounds, or their disabilities.
- 3.5. Ensure confidentiality and privacy of patients' information.
- 3.6. Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors.
- 3.7. Recognize and manage conflicts of interest.
- 3.8. Refer patients to appropriate health facility at the appropriate stage.
- 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.

Competency Area IV: The graduate as a scholar and scientist. The graduate should build his clinical practice on a base of the knowledge of scientific principles and methods of basic medical and social sciences, applying this knowledge into clinical care, and using it as a foundation for clinical reasoning, care provision, further professional development and research. The graduate should be able to:

- 4.1 Describe the normal structure of the body and its major organ systems and explain their functions.
- 4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.
- 4.3 Recognize and describe main developmental changes in humans and the effect of growth, development and aging on the individual and his family.
- 4.4 Explain normal human behavior and apply theoretical frameworks of psychology to interpret the varied responses of individuals, groups and societies to disease.
- 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).
- 4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.
- 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.

4.8 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.

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

The graduate should work and collaborate effectively with physicians and other colleagues in the health care professions, demonstrating an awareness of and a respect for their roles in delivering safe, effective patient- and population-centered care. He/she should be committed to his/her role as a part of health care system, respecting its hierarchy and rules and using his/her administrative and leadership skills to add value to the system. The graduate should be able to:

- 5.1 Recognize the important role played by other health care professions in patients' management.
- 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.
- 5.3 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.
- 5.4 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.
- 5.5 Communicate effectively using a written health record, electronic medical record, or other digital technology.
- 5.6 Evaluate his/her work and that of others using constructive feedback.
- 5.7 Recognize own personal and professional limits and seek help from colleagues and supervisors when necessary.
- 5.8 Apply fundamental knowledge of health economics to ensure the efficiency and effectiveness of the health care system.
- 5.9 Use health informatics to improve the quality of patient care.
- 5.10 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.
- 5.11 Improve the health service provision by applying a process of continuous quality improvement.
- 5.12 Demonstrate accountability to patients, society, and the profession.

Competency Area VI: The graduate as a lifelong learner and researcher

The graduate should demonstrate a lifelong commitment to excellence in practice through continuous learning and professional development. He should reflect on his own performance, and plan for his own development making use of all possible learning resources. The graduate should have an inquisitive mind and adopt sound scientific research methodology to deal with practice uncertainty and knowledge gaps and to contribute to the development of his profession as well as for the purpose of his own academic development. The graduate should be able to:

- 6.1 Regularly reflect on and assess his/her performance using various performance indicators and information sources.

- 6.2 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice
- 6.3 Identify opportunities and use various resources for learning.
- 6.4 Engage in inter-professional activities and collaborative learning to continuously improve personal practice and contribute to collective improvements in practice.
- 6.5 Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that address them.
- 6.6 Effectively manage learning time and resources and set priorities.
- 6.7 Demonstrate an understanding of the scientific principles of research including its ethical aspects and scholarly inquiry and Contribute to the work of a research study.
- 6.8 Critically appraise research studies and scientific papers in terms of integrity, reliability, and applicability.
- 6.9 Analyze and use numerical data including the use of basic statistical methods.
- 6.10 Summarize and present to professional and lay audiences the findings of relevant research and scholarly inquiry.

III- Program Learning Outcomes (PLOs)

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

Key competency	PLOs
1.1 Take and record a structured, patient-centered history.	<p>1.1.1 List history-taking items.</p> <p>1.1.2 Define Efficient prioritized history taking.</p> <p>1.1.3 Describes the different components of history taking.</p> <p>1.1.4 Describe the secondary resources for patient encounters.</p> <p>1.1.5 Demonstrate customized efficient prioritized history-taking.</p> <p>1.1.6. Obtain data from secondary resources.</p> <p>1.1.7. Demonstrate respect to the patient's rights during history taking.</p> <p>1.1.8. Apply the legal and ethical standards during history taking.</p>
1.2 Adopt an empathic and holistic approach to the patients and their problems.	<p>1.2.1 Define empathic and holistic approaches in patient care.</p> <p>1.2.2 Describe the patient's behavior during illness.</p> <p>1.2.3 Describe a patient's illness experience in the patient's own words according to the corresponding system.</p> <p>1.2.4 Demonstrate empathy in patient consultation.</p> <p>1.2.5 Demonstrate respect towards patient's emotions about illness.</p>



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<p>1.3 Assess the mental state of the patient.</p>	<p>1.3.1 Describe mental state assessment pillars. 1.3.2 Conduct a mental state assessment that is appropriately targeted to the patient's complaints and medical conditions 1.3.3 Demonstrate respect and support toward mentally disordered patients.</p>
<p>1.4 Perform an appropriately timed full physical examination of patients, appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive.</p>	<p>1.4.1 List physical examination components 1.4.2 Describe the disease finding (clinical manifestations) for the organ in the corresponding system. 1.4.3 Categorize different abnormalities of the organ in the corresponding system and their role in disease pathogenesis. 1.4.4 Conduct general clinical examination concentrating on the systemic signs for the organ in the corresponding system- 1.4.5 Perform local examination for the organ in the corresponding system- 1.4.6 Generate differential diagnosis for acute presentations for the organ in the corresponding system-based on the examination findings. 1.4.7 Demonstrate respect to the patient's rights during clinical examination. 1.4.8 Apply the legal and ethical standards during clinical examination. 1.4.9 Show professionalism while dealing with the patient.</p>
<p>1.5 Prioritize issues to be addressed in a patient encounter.</p>	<p>1.5.1. Recognize situations with a need for urgent or emergent medical care, including life-threatening conditions. 1.5.2. Recognize when to seek additional guidance. 1.5.3. Demonstrates knowledge of care coordination. 1.5.4. Describe the psychosocial factors related to the situation. 1.5.5. Discuss the effect of the psychosocial factors on management plans. 1.5.6. Develop a prioritized differential diagnosis for a patient's condition. 1.5.7. Modify a differential diagnosis depending on emergent situations. 1.5.8. Coordinates care of patients in routine clinical situations effectively utilizing the roles of the interprofessional team member</p>



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		1.5.9. Counsel the patients and caregivers by incorporating the psychological element. 1.5.10. Demonstrate respect to the psychosocial factors affecting the patient and his clinical condition
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	1.6.1. List the appropriate diagnostic investigations for common diseases of the system/organ 1.6.2. Describe the basic interpretation of common diagnostic testing. 1.6.3. Select the proper diagnostic test for the patient complaint taking into consideration the effectiveness factor. 1.6.4. Interpret the findings of different diagnostic tests for a specific disease 1.6.5. Demonstrate respect to the patient's socioeconomic standard during investigation selection.
1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	1.17.1 Define uncertainty, complexity, and ambiguity 1.17.2 Identify the uncertainty, ambiguity, and complexity in different patient encounters. 1.17.3 List the different causes of uncertainty and ambiguity in patient diagnosis. 1.17.4 Outline the approach for dealing with uncertainty, ambiguity, and complexity. 1.17.5 Provide a thorough differential diagnosis of a patient with an undifferentiated illness. 1.17.6 Schedule a patient with a chronic illness for a return visit to continue the work-up Level. 1.17.7 Demonstrate respect towards the opinions of other colleagues and senior staff regarding the assessment of patients with uncertain diagnoses. 1.17.8 Show empathy toward a patient with uncertainty, ambiguity, or complexity in clinical diagnosis.
1.8	Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	1.15.1. Define clinical and biomedical sciences. 1.15.2. Describe the different aspects of the clinical sciences relevant to the problem related to the current. 1.15.3. Outline the different parameters of biomedical sciences relevant to the clinical situation related to the current. 1.15.4. Integrate the clinical and biomedical knowledge to reach a provisional diagnosis for the patient's problem.



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1.15.5. Show cooperation with other health team members in patient management.

1.15.6. Demonstrate respect to the teamwork in a healthcare setting.

1.9 Retrieve, analyze, and evaluate relevant and current data from the literature, using information technologies and library resources, to help solve a clinical problem based on evidence (EBM).

- 1.9.1 Define evidence-based medicine.
- 1.9.2 Identify different sources of evidence.
- 1.9.3 List the steps for evidence appraisal.
- 1.9.4 Identify evidence-based guidelines related to the patient's problem.
- 1.9.5 Discuss potential evidence-based treatment options in respect to patient preference.
- 1.9.6 Formulate a patient problem-directed search question.
- 1.9.7 Locate the trustable sources of data and information needed for the clinical work.
- 1.9.8 Appraise different types of evidence.
- 1.9.9 Apply the best available evidence, integrated with patient preference, to the care of patients.
- 1.9.10 Demonstrate respect to the copyrights of different data sources.
- 1.9.11 Show accuracy and honesty during the collection and presentation of data.

1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

- 1.10.1. List the different steps for a diagnostic approach.
- 1.10.2. Identify the proper order for the diagnostic steps including history, examination, and investigations.
- 1.10.3. Follow the proper order for the diagnostic steps in relation to the patient encounter.
- 1.10.4. Integrate the findings of history, clinical examination, and investigations to reach an accurate diagnosis concerning the patient complaint in the corresponding system.
- 1.10.5. Interpret all the available data in the diagnostic process without disregard for minor or irrelevant findings

1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.

- 1.11.1. Describe the different standard steps of diagnostic maneuvers for the clinical problem related to the current system.
- 1.11.2. Identify the different intervention protocols for the clinical problem related to the current system.
- 1.11.3. Recognize the principles of patient safety and infection controls during the relevant diagnostic and intervention maneuvers.



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	<p>1.11.4. Perform the basic diagnostic maneuvers relevant to the clinical problem of the current system.</p> <p>1.11.5. Apply the standards of patient safety and infection control during dealing with patients in different clinical situations.</p> <p>1.11.6. Apply critical thinking skills to deal with unexpected clinical findings and challenging situations.</p> <p>1.11.7. Seek the opinions of seniors and other colleagues in unexpected critical situations.</p> <p>1.11.8. Appraise his/her skills during diagnostic and intervention maneuvers concerning patient benefit and safety.</p> <p>1.11.9. demonstrate respect to the opinions of seniors and other colleagues in emergent critical situations.</p>
1.12 Adopt strategies and apply measures that promote patient safety.	<p>1.12.1. List patient misidentification or medication errors as common patient safety events.</p> <p>1.12.2. Identify medical errors to improve patient safety in all practice settings.</p> <p>1.12.3. Describes how to report errors in a clinical setting.</p> <p>1.12.4. Participate in effective and safe hand-offs and transitions of care.</p> <p>1.12.5. Demonstrate respect to the rules of patient safety in clinical practice</p>
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.	<p>1.13.1. Describe the evidence-based guidelines for the management of clinical problems relevant to the current system.</p> <p>1.13.2. Collaborate with other colleagues in decision making</p> <p>1.13.3. Apply a patient-centered approach in patient or caregiver counseling.</p> <p>1.13.4. Demonstrate respect to the patient or his caregivers' rights in decision-making.</p> <p>1.13.5. Demonstrate respect to the opinions of other colleagues in decision-making</p>
1.14 Respect patients' rights and involve them and /or their families/carers in management decisions.	<p>1.14.1 Identify the rights of the patients or their caregivers regarding decision-making in different clinical situations.</p> <p>1.14.2 Describe the ethical dilemma.</p> <p>1.14.3 Document and report clinical information truthfully in a confidential way.</p> <p>1.14.4 Formulate a management plan taking into consideration the patient's rights.</p>



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	1.14.5 Treat patients with dignity, civility, and respect, regardless of race, culture, gender, ethnicity, age, or socioeconomic status
1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures, and basic first aid procedures.	<p>1.15.1. Describe the approaches for the management of common emergencies related to the current system</p> <p>1.15.2. Define the steps of cardio-pulmonary resuscitation and basic life support.</p> <p>1.15.3. Identify the main first aid measures related to the emergencies of the current.</p> <p>1.15.4. Perform cardiopulmonary resuscitation and basic life support.</p> <p>1.15.5. Apply main first aid measures.</p> <p>1.15.6. Set priorities in dealing with clinical emergencies.</p> <p>1.15.7. Demonstrate respect to the contextual factors of emergencies and first aid procedures.</p>
1.16 Apply the appropriate pharmacological and nonpharmacological approaches to alleviate pain and provide palliative care for seriously ill people, aiming to relieve their suffering and improve their quality of life.	<p>1.16.1 Define palliative care.</p> <p>1.16.2 Identify the basic pharmacological lines for pain management.</p> <p>1.16.3 Describe the non-pharmacological approaches for pain management</p> <p>1.16.4 List the indications and methods for palliative measures for seriously ill patients.</p> <p>1.16.5 Formulate a management plan for chronic pain.</p> <p>1.16.6 Design a protocol for palliative care for seriously ill patients.</p> <p>1.16.7 Show empathy in dealing with seriously ill patients</p>
1.17 Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification.	<p>1.17.1 Define end-of-life care.</p> <p>1.17.2 Describe different patient – centered approaches for management of end-of-life situations.</p> <p>1.17.3 Recognize the regulations of death declaration.</p> <p>1.17.4 Identify the legal issues regarding death certification.</p> <p>1.17.5 Practice writing of death certifications</p> <p>1.17.6 Demonstrate respect to the feelings of the patient's family while reporting end of life state and death situation.</p>

Competency Area 2: The graduate as a health promoter.

Competency	PLOs
2.1 Identify the basic determinants of health and principles of health improvement.	<p>2.1.1. Define the basic health determinants.</p> <p>2.1.2. Describe the principles of health improvement.</p> <p>2.1.3. Utilize basic health determinants according to the system complaint in relation to the system.</p> <p>2.1.4. Show continuous motivation for health improvement.</p>
2.2 Recognize the economic, psychological, social, and cultural factors that interfere with wellbeing.	<p>2.2.1. List the socioeconomic factors that affect health.</p> <p>2.2.2. Identify the psychological factors involved in health maintenance.</p> <p>2.2.3. Describe the effect of cultural variation on individual well-being.</p> <p>2.2.4. Analyze the factors affecting the health status of an individual.</p> <p>2.2.5. Demonstrate respect to the socioeconomic, psychological, and cultural variation among different individuals in clinical practice.</p>
2.3 Discuss the role of nutrition and physical activity in health.	<p>2.3.1. Define the essential nutritional needs in relation to the life cycle stage.</p> <p>2.3.2. Identify the physical activity requirements in relation to the life cycle stage.</p> <p>2.3.3. Describe the effect of nutritional status on an individual's well-being.</p> <p>2.3.4. Describe the effect of different types of physical activity on health status.</p> <p>2.3.5. Calculate the nutritional requirements according to the life cycle stage.</p> <p>2.3.6. Provide advice regarding physical activity to individuals of different life cycle stages to improve their well-being.</p> <p>2.3.7. Demonstrate respect to the role of nutrition and physical activity in well-being.</p> <p>2.3.8. Apply effective communication skills in counselling.</p>
2.4 Identify the major health risks in his/her community, including demographic, occupational and environmental risks; endemic diseases, and prevalent chronic diseases.	<p>2.4.1. List the demographic and environmental risk factors in the community.</p> <p>2.4.2. Describe different occupational hazards in the community.</p> <p>2.4.3. Discuss endemic and prevalent chronic diseases in the community.</p>



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	2.4.4. Analyze the risk factors, occupational and environmental hazards in a simulated field visit. 2.4.5. Apply analytical thinking in collecting data
2.5 Describe the principles of disease prevention, and empower communities, specific groups or individuals by raising their awareness and building their capacity.	2.5.1. Describe different approaches for disease prevention. 2.5.2. Identify the role of health education in the community and individual welfare. 2.5.3. Discuss different approaches to increase individual and community awareness. 2.5.4. Identify capacity building programs to increase the community awareness. 2.5.5. Formulate a plan for a specific disease prevention 2.5.6. Design a setting for health education. 2.5.7. Deliver a health education message 2.5.8. Use communication and presentation skills effectively.
2.6 Recognize the epidemiology of common diseases within his/her community and apply the systematic approaches useful in reducing the incidence and prevalence of those diseases.	2.6.1. Identify the basics of disease epidemiology. 2.6.2. Describe the common community disease epidemiology. 2.6.3. Identify the steps to reduce the incidence and prevalence of a specific disease. 2.6.4. Calculate the incidence and prevalence of a specific disease. 2.6.5. Formulate a management plan for common community diseases. 2.6.6. Show accuracy while analyzing data.
2.7 Provide care for specific groups including pregnant women, newborns and infants, adolescents and the elderly.	2.7.1. Identify the characteristic features of each specific group of individuals. 2.7.2. Describe the health promotion and anticipatory care for each specific group. 2.7.3. Tailor the health care service according to the targeted specific group. 2.7.4. Demonstrate respect to variations among different individuals and their specific needs.
2.8 Identify vulnerable individuals that may be suffering from abuse or neglect and take the proper actions to safeguard their welfare.	2.8.1. Define disadvantaged groups in health care. 2.8.2. Describe different types of abuse and neglect. 2.8.3. Discuss the approach for the management of different types of abuse. 2.8.4. Identify the approach for dealing with various forms of neglect. 2.8.5. Detect the type of abuse in a presented scenario.



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	<p>2.8.6. Identify the actions of neglect in a given case scenario.</p> <p>2.8.7. Formulate a management plan for a case of abuse or neglect.</p> <p>2.8.8. Show compassion, empathy, and sympathy in dealing with cases of abuse or neglect.</p>
<p>2.9 Adopt suitable measures for infection control.</p>	<p>2.9.1. Define nosocomial infection.</p> <p>2.9.2. Identify different sources of infection in a clinical setting.</p> <p>2.9.3. List infection control steps in different clinical situation.</p> <p>2.9.4. Apply different infection control measures in a clinical setting like hand washing.</p> <p>2.9.5. Manage a case of nosocomial infection.</p> <p>2.9.6. Show commitment to infection control regulations.</p>

Competency Area 3: The graduate as a professional.

Key competency	PLOs
<p>3.1 Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.</p>	<p>3.1.1. Define professionalism.</p> <p>3.1.2. List the academic and professional behaviors in all aspects of the practice.</p> <p>3.1.3. Identify the principles of building appropriate academic and professional relationships.</p> <p>3.1.4. Presents him or herself in a respectful and professional manner.</p> <p>3.1.5. Demonstrate honesty, integrity, commitment, compassion, and respect in a patient encounter.</p> <p>3.1.6. Complete clinical, administrative, and curricular tasks on time.</p> <p>3.1.7. Dress and behave appropriately.</p> <p>3.1.8. Demonstrate appropriate professional relationships with patients, families, and staff</p>
<p>3.2 Adhere to the professional standards and laws governing the practice, and abide by the national code of ethics issued by the Egyptian Medical Syndicate</p>	<p>3.2.1. Identify the code of ethics issued by the Egyptian Medical Syndicate.</p> <p>3.2.2. Identify the laws governing the clinical practice.</p> <p>3.2.3. Decide the different law consequences to a given clinical situation.</p> <p>3.2.4. Apply the national code of ethics to curricular activities and different clinical situations.</p> <p>3.2.5. Demonstrate respect to the national code of ethics and laws in a patient encounter.</p>



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3.3 Respect the different cultural beliefs and values in the community they serve.	3.3.1. Identify the value of cultural differences. 3.3.2. Demonstrate respect towards community diversity presented in case vignettes. 3.3.3. Behave positively respecting different cultural beliefs and values in the community.
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. Identify the code of ethics regarding patient equality 3.4.2. Define stigmatized and different marginalized patient groups in clinical settings. 3.4.3. Point out the improper behavior in presented video or role play. 3.4.4. Demonstrate equality while dealing with patients of different marginalized groups.
3.5 Ensure confidentiality and privacy of patients' information.	3.5.1. Define the code of ethics regarding patient confidentiality. 3.5.2. Identify the points of violation of patient confidentiality in a given case scenario. 3.5.3. Demonstrate respect toward patient privacy.
3.6 Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors.	3.6.1 Identify the basics of legal responsibility for medical errors. 3.6.2 Outline the different medicolegal aspects of malpractice. 3.6.3 Describe the common causes of medical errors and how to avoid them. 3.6.4 Differentiate between different types of malpractice and medical errors. 3.6.5 Document the presented health service for medicolegal aspects properly. 3.6.6 Deal with patients according to the standards of clinical practice to avoid medical errors.
3.7 Recognize and manage conflicts of interest.	3.7.1. Define conflict of interest 3.7.2. Describe conflict of interest management 3.7.3 Point out conflicts of interest in different situations. 3.7.4 Demonstrate honesty by declaring a conflict of interest when present
3.8 Refer patients to the appropriate health facility at the appropriate stage.	3.8.1. Identify the hierarchy of the healthcare system in Egypt 3.8.2. List the indications for patients' referral. 3.8.3. Take the decision of patient referral when indicated.



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3.8.4. Deliver all available health care to the patients till referral.

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. Describe unethical behaviors that might endanger patient safety.
3.9.2. Identifies the appropriate channels to report unprofessional or unethical behavior.
3.9.3. Points out when to report unprofessional, unethical, or unsuitable behavior in presented videos or role play.
3.9.4. Exhibits self-awareness, self-management, social awareness, and relationship management.

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

Competency	PLOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Describe the normal anatomy of the organ/system related to the</p> <p>4.1.2. Identify the normal physiology of the target organ and systems involved in the disease.</p> <p>4.1.3. Describe the normal structure of different tissues of the body.</p> <p>4.1.4. Discriminate between the different normal anatomical landmarks.</p> <p>4.1.5. Interpret the relationship between different physiological tests and organ functions.</p> <p>4.1.6. Relate the difference in tissue structure to the difference in their function.</p> <p>4.1.7. Integrate the anatomical, physiological, and histological criteria of different organs.</p> <p>4.1.8. Apply search methods to improve basic knowledge.</p>
4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	<p>4.2.1. Describe the basics of the biochemistry involved in different homeostasis processes in the human body.</p> <p>4.2.2. Identify the different homeostasis mechanisms at the cellular level.</p> <p>4.2.3. Describe the molecular basis for the human genome.</p> <p>4.2.4. Relate molecular, biochemical, and cellular homeostasis to functions of different body functions.</p>



4.2.5. Demonstrate analytical thinking while assessing different body functions.

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. Describe the general process of embryogenesis.
- 4.3.2. Identify the steps of embryological development of the target organ/system.
- 4.3.3. Describe the developmental changes in the human life cycle.
- 4.3.4. Identify the effect of growth and development on family dynamics.
- 4.3.5. Outline the effect of aging on different body systems with consequent disease processes.
- 4.3.6. Relate the difference in body structure and function to different age groups.
- 4.3.7. Apply a patient-centered approach in patient encounters taking into consideration the family dynamics aspects.
- 4.3.8. Demonstrate respect to the effect of growth and development on family dynamics

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. Explain the application of psychodynamic theories of human thought and behavior in describing and analyzing individuals, groups, or societies' behavior.
- 4.4.2. Describe the basics of the human mind and behavior with various diseases.
- 4.4.3. Interpret the different behaviors of patients and their families in response to different clinical settings.
- 4.4.4. Adapt to different behaviors of patients and their families in different clinical situations.

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. Define the causative factors, risk factors, and precipitating factors for different disease processes.
- 4.5.2. Describe the etiopathogenesis of common diseases of the specified system/ and its emergent conditions.
- 4.5.3. Analyze different case scenarios to reach the underlying etiology.
- 4.5.4. Show analytical thinking while analyzing different clinical situations.

4.6 Describe altered structure and function of the body and its major

- 4.6.1. Compare different abnormalities of the body structure about their role in disease pathogenesis.

organ systems that are seen in various diseases and conditions.

4.6.2. Outline different abnormalities of the function of different body systems concerning the development of various diseases.

4.6.3. Integrate the structural abnormalities with the clinical presentations of different diseases.

4.6.4. Relate the disorders in organ functions to the disease process.

4.6.5. Value the holistic approach in the management of different clinical problems.

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 pharmacokinetics and pharmacodynamics of different drug families

4.7.2. Define the indications and contraindications for the main medications involved in the current.

4.7.3. List the adverse effects and drug-drug interactions for a certain medication.

4.7.4. Define different types of medication abuse and its hazards on the individual and society.

4.7.5. Select the proper drug according to the clinical situation.

4.7.6. Combine different drugs respecting their mechanism of action and drug-drug interaction.

4.7.7. Demonstrate rational drug use while prescribing medications respecting patient contextual factors.

4.7.8. Guard against medication abuse while prescribing treatment for different clinical situations.

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 the principles of basic science practical tests for structure identification like gross and microscopic examination.

4.8.2. Identify the principles of tests of body physiology and biochemical reactions.

4.8.3. Describe different findings of different laboratory tests relevant to the

4.8.4. Discuss different findings of imaging studies relevant to the disease

4.8.5. Identify the pathological findings of different diseases.

4.8.6. List different functional tests for the organ /system included in the disease and their findings
Practice basic science practical skills.

4.8.7. Relate the findings of basic science practical tests to clinical practice.

- 4.8.8. Interpret the different findings of investigations ordered for the patient.
- 4.8.9. Collaborate with other healthcare providers to reach a diagnosis.

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

Competency	PLOs
5.1 Recognize the important role played by other healthcare professionals in patient' management.	<p>5.1.1 Define health care team.</p> <p>5.1.2 Describe the role of the health care team in patients' management.</p> <p>5.1.3 Practice teamwork in role play for different clinical situations.</p> <p>5.1.4 Collaborate with other healthcare team members.</p> <p>5.1.5 Demonstrate respect toward other healthcare colleagues</p>
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.	<p>5.2.1 Define overlapping and shared responsibilities of the health care team in effective patient management.</p> <p>5.2.2 Identify the role of every healthcare team member in the process of decision-making.</p> <p>5.2.3 Practice collaborative decision-making in simulated scenarios for different clinical presentations.</p> <p>5.2.4 Collaborate with other healthcare team members</p> <p>5.2.5 Demonstrate respect towards each member of the healthcare team</p> <p>5.2.6 Demonstrate respect towards the professionalism of other colleagues</p>
5.3 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.	<p>5.3.1 Outline different causes for conflict in health team practice.</p> <p>5.3.2 Identify different strategies for conflict management in health care provision.</p> <p>5.3.3 Practice conflict management in adopted role-play scenarios.</p> <p>5.3.4 Communicate effectively with other colleagues to resolve conflict and overcome differences in opinions.</p> <p>5.3.5 Demonstrate respect to the solution for the conflict in favor of collaborative teamwork and patient care</p>

<p>5.4 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.</p>	<p>5.4.1 Identify different leadership styles 5.4.2 Identify the criteria of a successful leader 5.4.3 Describe different strategies to deal with different obstacles encountered by leadership. 5.4.4 Practice leadership skills in simulated scenarios for different clinical situations. 5.4.5 Demonstrate respect and appreciation while dealing with juniors and other healthcare team members while being a leader 5.4.6 Apply practices for continuous improvement of the work environment while being a leader.</p>
<p>5.5 Communicate effectively using written health records, electronic medical records, or other digital technology.</p>	<p>5.5.1 List the components of a health record. 5.5.2 Identify different types of health records and describe their pros and cons 5.5.3 List the advantages of digital technology in health data. 5.5.4 Practice written health record writing. 5.5.5 Criticize the electronic data recording system effectively. 5.5.6 Demonstrate honesty and accuracy while recording and presenting health data. 5.5.7 Demonstrate respect to using medical records in patient encounters</p>
<p>5.6 Evaluate his / her work and that of others using constructive feedback</p>	<p>5.6.1 Define constructive feedback 5.6.2. Discuss the value of constructive feedback. 5.6.3 Practice constructive feedback in simulated scenarios. 5.6.4 Demonstrate respect to the given feedback in a professional and effective way</p>
<p>5.7 Recognize own personal and professional limits and seek help from colleagues and supervisors when necessary.</p>	<p>5.7.1. Identify when to seek personal and professional help in patient encounters. 5.7.2. Outline different types of limitations in patient encounters and how to deal with them 5.7.3. Point out different limitations in a given role-play 5.7.4. Identify the indications for counseling in a given case scenario. 5.7.5. Apply patient-centered care despite the presence of personal limitations Consistently demonstrate compassion, respect, and empathy</p>
<p>5.8 Apply fundamental knowledge of health economics to ensure</p>	<p>5.8.1 Discuss the basic health economics. 5.8.2 Define the efficiency and effectiveness of the healthcare system</p>

the efficiency and effectiveness of the health care system.	<p>5.8.3 Outline different approaches to improve the healthcare system taking into consideration the efficacy and effectiveness.</p> <p>5.8.4 Analyze different work situations to define the points of strengths and weaknesses.</p> <p>5.8.5 Demonstrate accuracy and analytical thinking in different situations</p> <p>5.8.6 Formulate an approach to improve the efficacy of a healthcare system</p>
5.9 Use health informatics to improve the quality of patient care.	<p>5.9.1 Define health informatics.</p> <p>5.9.2 List different types of health informatics.</p> <p>5.9.3 Differentiate between different types of data according to source and usage.</p> <p>5.9.4 Apply honesty and accuracy while providing medical care.</p>
5.10 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.	<p>5.10.1 Identify the regulations that govern clinical data documentation</p> <p>5.10.2 Define the legal responsibility of the clinician regarding clinical documentation.</p> <p>5.10.3 Practice different forms of clinical documentation.</p> <p>5.10.4 Demonstrate honesty and accuracy while dealing with clinical data</p>
5.11 Improve the health service provision by applying a process of continuous quality improvement	<p>5.11.1 Identify the standards of quality in a clinical setting</p> <p>5.11.2 Formulate a plan for quality improvement in a clinical setting</p> <p>5.11.3 Demonstrate accountability to patients, society, and the profession.</p>
5.12 Show commitment toward continuous improvement of quality in the clinical setting.	<p>5.12.1 Define the role of the physician toward patients, society, and the profession.</p> <p>5.12.2 Define accountability in inpatient encounters.</p> <p>5.12.3 Identify the points of dereliction in simulated clinical situations.</p> <p>5.12.4 Show commitment towards different roles of the clinician.</p>

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

Competency	PLOs
6.1 Regularly reflect on and assess his / her performance using various performance indicators and information sources.	<p>6.1.1 List the main performance indicators</p> <p>6.1.2 Describe different information sources for performance assessment</p>



		6.1.3 Apply the use of performance indicators in clinical situations
		6.1.4 Show integrity and accuracy while assessing his/her performance
6.2	Develop, implement, monitor, and revise a personal learning plan to enhance professional practice	6.2.1 Define personal learning plan 6.2.2 Identify the required skills to design a personal learning plan 6.2.3 Identify the value of continuous medical education, 6.2.4 List different approaches for continuous medical education 6.2.5 Design a Personal Learning Plan 6.2.6 Implement a personal learning plan 6.2.7 Monitor a personal learning plan 6.2.8 Criticize a Personal Learning Plan 6.2.9 Show enthusiasm and commitment during implementing a learning plan
6.3	Identify opportunities and use various resources for learning.	6.3.1 Define a learning opportunity 6.3.2 List different resources for learning 6.3.3 Select the proper learning opportunity to meet personal demands and capabilities 6.3.4 Use various resources to enhance personal learning 6.3.5 Demonstrate respect to proper learning opportunity
6.4	Engage in inter-professional activities and collaborative	6.4.1 List inter-professional activities 6.4.2 Define collaborative learning 6.4.3 Apply teamwork and collaboration with other colleagues
6.5	Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that address them.	6.5.1 Define practical uncertainty 6.5.2 Outline causes of uncertainty in different clinical situations. 6.5.3 Use focused question generation for situations of uncertainty 6.5.4 Identify gaps in clinical and professional encounters 6.5.5 Demonstrate respect to the role of research methods in addressing knowledge gaps
6.6	Effectively manage learning time and resources and set priorities.	6.6.1 Define time management. 6.6.2 List different learning resources

		6.6.3 Outline causes for waste of time during the learning process.
		6.6.4 Prepare a time plan for learning
		6.6.5 Set priorities in the learning process
		6.6.6 Demonstrate respect to time and resources in the learning process.
6.7	Demonstrate an understanding of the scientific principles of research including its ethical aspects and scholarly inquiry and Contribute to the work of a research study.	6.7.1 Recognize the basics of research methods including different study designs. 6.7.2 Identify the ethical principles for research. 6.7.3 Prepare a research protocol. 6.7.4 Point out unethical points in a research protocol 6.7.5 Demonstrate honesty and ethics while conducting research.
6.8	Critically appraise research studies and scientific papers in terms of integrity, reliability, and applicability	6.8.1 Define the parameters for the critical appraisal of a scientific paper. 6.8.2 Describe the approach for the critical appraisal of a scientific paper. 6.8.3 Practice critical appraisal for a sample of scientific papers 6.8.4 Show accurate analytical thinking while appraising a scientific paper
6.9	Analyze and use numerical data including the use of basic statistical methods.	6.9.1 Define statistical methods 6.9.2 List different types of statistical data. 6.9.3 Identify the main types of statistics. 6.9.4 Outline the main inferential statistic tests and their indications for use. Practice basic statistical tests. 6.9.5 Show accuracy while collecting and analyzing data
6.10	Summarize and present to professional and lay audiences the findings of relevant research and scholarly inquiry.	6.10.1 Identify the criteria of an efficient research presentation. 6.10.2 Practice presentation of scientific topics in Student seminars 6.10.3 Demonstrate proper language, dress code, and communication skills during a scientific presentation

V- Curriculum Structure and Contents

- **4.a- Program duration (years) :** 5 years(10 terms) + Pre-Registration House Officer (PRHO) two training year.

4.b- Program structure:

- 1- First stage (pre-clinical stage) (5 terms)
- 2- second stage (Clinical stage) (5 terms)

Academic year		No. of study hours			Number of study weeks/term	Total credit hour / term	Total marks /term
		Theoretical	Practical	Activities			
First stage:							
Level 1*	Term 1	129	171	342	16	21.5	475
	Term 2	111	144	297	16	19.5	425
Level 2	Term 1	108	162	324	16	21.5	500
	Term 2	114	171	342	16	20.5	475
Level 3	Term 1	96	144	288	16	18.5	525
Second stage :							
Level 3	Term 2	114	171	342	16	20.5	475
Level 4	Term 1	114	171	342	16	21.5	500
	Term 2	120	180	360	16	21.5	500
Level 5	Term 1	102	153	306	16	19.5	450
	Term 2	114	171	342	16	20.5	475
Total for first stage						101.5	2400
Total for second stage						103.5	2400
Percentage of total first stage / total program						49.5%	50%
Percentage of total second stage / total program						50.5%	50%

■ **Modules contributing to the program:**

1- Compulsory modules (181 credit hours)

Compulsory modules (foundation; musculoskeletal^{1,2} ; blood & lymphatic ; cardiovascular; respiratory; nutrition, gastrointestinal ; renal & urinary; reproductive & breast; Endocrine; CNS & special sense^{1,2} ; basic medical examination; dermatology, community; primary health care and elderly; child health; investigations; oncology; heart & chest; clinical pathology ; endocrinology & breast; hematology and lymphatics; Obstetric; renal , urinary diseases and andrology; Gynecology; family medicine; Gastroenterology, hepatology & infectious disease ; psychiatry & neurological diseases ; ear, nose and throat ; pediatric surgery & plastic surgery; ophthalmology ; emergency & critical care; vascular surgery; orthopedic & rheumatology ; forensic & toxicology.

2- Longitudinal Modules (7 credit hours):

Behavioral and Human Sciences, Medical professionalism and communication; evidence-based medicine basic medical research and biostatistics; basic life support; ethical & legal issues in medical practice; patient safety & infection control, and Clinical psychology.

3- Elective Modules (10 credit hours)

<u>Medical :</u>		<u>Non Medical :</u>	
1	Medical Engineering	- Painting	1
2	Stem cells	Graphics and Photography	2
3	Biomedical genetics	Music	3
4	Molecular Biology	Computer and Programming languages	4
5	Advanced Life Support	Clothes design and fashion	5
6	Tissue culture (Pharmacology Department)	Digital and social media	6
7	Experimental Animal Model (Pharmacology Department)	History of medicine	7
8	Echo / Sonar	Training of trainers (TOT)	8
9	Parental nutrition	Financial management	9
10	Surgical intensive care	Strategic marketing	10
11	Complementary and alternative medicine	Medical informatics (Healthcare IT)	11
12	Hospital Administration	Languages (English – Germany – France)	12
13	Hospital Management for health professionals	Translation	13
14	Emergency and critical care medicine	Health Economics	14
15	Disaster management for health professionals	Physics	15
16	Application of computer programs in medical field	Health care quality	16
		Philosophy	17
		Art (Portrait – glass – wood burn – graffiti)	18
		Handmade works	19
		Cooking	20
		Acting and theatre	21
		Calligraphy	22
		Leadership and project management	23



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Time management	24
- Creativity and mind mapping	25
Human Resources	26
- Public Relations	27

4- Modules for University/ faculty requirements (2 credit hours)

Module code	Module title	Credit hours (Lecture)	Total
- UN 01	Human rights	1	1
- EN 02	Quality entrance	1	1

5- Ten vertical Integration modules (10 modules/ 5 credit hours)

Total credit hours for the program 205 credit hours as follow:

Courses and Modules		First stage	Second stage	total
Compulsory Courses and Modules	Courses & integrated Modules	88	93	181
	Longitudinal Modules	4	3	7
Elective Modules		5	5	10
Integrated longitudinal Modules		2.5	2.5	5
University requirement		2	-	2
Total		101.5	103.5	205

First Level

Semester I:

Code			department	Total hours			weeks	Credit hour	marks
				T	p	A			
1	INTRO-ANAT/EMB/HIST 1101	Foundat ion	Anatomy-embryology+ histology	33	49.5	99	4	5.5	137.5
	INTRO-PHYS/BIO 1102		Physiology + Biochemistry	15	22.5	45	2	2.5	62.5
	INTRO-PATH/PHAR 1103		Pathology+ pharmacology	39	58.5	117	6	6.5	162.5
	INTRO-PARA/MICRO1104		Parasitology+ microbiology	27	40.5	81	4	4.5	112.5
2	UN 01	Introduction to quality & accreditation in higher education*		15	All the semester			1	25
3	ELE	Elective Modules*		All the semester			1	25	
4		*Integrated longitudinal Modules		Weekly all the semester			0.5	12.5	
Total				129	171	342	16	21.5	475

*not included in marks

T: theoretical P : practical A : Activities



Semester 2

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Code			Total hours			weeks	Credit hour	Marks
			T	P	A			
1	MSI 1201	Musculoskeletal(1)	30	45	90	6	5	125
2	MSII 1202	Musculoskeletal(2)	24	36	72	4	4	100
3	PL/LYM 1203	Blood & Lymphatics	42	63	126	6	7	175
4	PC1204	Medical Professionalism and communication skills	All the semester				1	25
5	ELE	Elective Module*	All the semester				1	25
6	UN 02	Human ethics	15	All the semester			1	25
7		*Integrated longitudinal Modules	All the semester				0.5	12.5
Total			111	144	297	16	19.5	425

*Not included in marks T: theoretical P: practical A : Activities



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Second level



Semester III:

Code			Total hours			weeks	Credit hour	Marks
			T	P	A			
1	CVS 2101	Cardiovascular system	57	85.5	171	8	9.5	237.5
2	RES 2102	Respiratory system	36	54	108	6	6	150
3	NUT 2103	Nutrition	15	22.5	45	2	2.5	62.5
4	EBM/BMR/B 2104	EBM, Basics of medical research and biostatistics	All the semester (weekly)				2	50
5	ELE	*Elective Modules	All the semester (weekly)				1	25
6		*Integrated longitudinal Modules	All the semester (weekly)				0.5	12.5
Total			108	162	324	16	21.5	500

*Not included in marks T: theoretical P: practical A: Activities



Semester IV:



	Code		Total hours			Weeks	Credit hour	Marks
			T	p	A			
1	GIT 2201	Gastrointestinal system	48	72	144	7	8	200
2	URIN 2202	Renal & Urinary system	30	45	90	4	5	125
3	REP/BR 2203	Reproductive system & Breast	36	54	108	5	6	150
4	ELE	*Elective Modules	All the semester (weekly)				1	25
5		*Integrated longitudinal Modules	All the semester (weekly)				0.5	12.5
Total			114	171	342	16	20.5	475

*Not included in marks T: theoretical P: practical A: Activities



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Third level



Semester V:

Code			Total hours			Weeks	Credit hour	Marks
			T	P	A			
1	ENDO 3101	Endocrine	36	54	108	5	6	150
2	CNS/SP I 3102	CNS & Special Senses (1)	30	45	90	5	5	125
3	CNS/SP II 3103	CNS & Special Senses (2)	30	45	90	6	5	125
4	BLS 3104	Basic life support	All the semester (weekly)				1	25
5	ELE	*Elective Modules	All the semester (weekly)				1	25
6		*Integrated longitudinal Modules	All the semester (weekly)				0.5	12.5
Total			96	144	288	16	18.5	425

*Not included in marks T: theoretical P: practical A: Activities



Semester VI:

	Code		Total hours			Weeks	Credit hour	Marks
			T	P	A			
1	BME 3201	Basic clinical examination	15	22.5	45	2	2.5	62.5
	DERM A 3202	Dermatology	12	18	36	2	2	50
2	COM 3203	Community Medicine	30	45	90	5	5	125
3	PHC/ELD 3204	Primary health care and elderly care	15	22.5	45	2	2.5	62.5
4	CHLD 3205	Child Health	15	22.5	45	2	2.5	62.5
5	INVEST 3206	Investigations	15	22.5	45	2	2.5	62.5
6	ONCO 3207	Onchology	6	9	18	1	1	25
7	PSYCH 3208	Clinical Psychology	6	9	18	All the semester	1	25
8	ELE	*Elective Modules	All the semester (weekly)				1	25
9		*Integrated longitudinal Modules	All the semester (weekly)				0.5	12.5
Total			114	171	342	16	20.5	475

*Not included in marks T: theoretical P: practical A: Activities



Fourth Level

Semester VII :

	Code		Total hours			We eks	Credit hour	Marks
			T	P	A			
1	CVS/C HEST 4101	Heart and chest diseases	42	63	126	6	7	175
2	ENDO /BR 4102	Endocrinology and Breast	27	40.5	81	4	4.5	112.5
3	HEMA 4103	Hematology and lymphatics	15	22.5	45	2	2.5	62.5
4	GYN 4104	Gynecology	30	45	90	4	5	125
5	PS/IC 4105	Patient safety and infection control	All the semester (weekly)				1	25
6	ELE	*Elective Modules	All the semester (weekly)				1	25
7		*Integrated longitudinal Modules	All the semester (weekly)				0.5	12.5
Total			114	171	342	16	21.5	500

*Not included in marks T: theoretical P: practical A: Activities

	Code		Total hours			Weeks	Credit hour	Marks
			T	P	A			
1	GE/UR IN 4201	Renal and urinary diseases and andrology	33	49.5	99	5	5.5	137.5
2	OBS/F AML 4202	Obstetrics and family medicine	39	58.5	117	5	6.5	162.5
3	GIT/H EPT/I D 4203	Gastroentrology, Hepatology and infectious diseases	48	72	144	6	8	200
4	ELE	*Elective Modules	All the semester (weekly)				1	25
5		*Integrated longitudinal Modules	All the semester (weekly)				0.5	12.5
Total			120	180	360	16	21.5	500

*Not included in marks T: theoretical P: practical A: Activities



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Fifth Level



Semester IX:

	Code		Total hours			Weeks	Credit hour	Marks
			T	P	A			
1	PSYCH/N EUE/NEU S 5101	Psychiatry and neurology	36	54	108	5	6	150
2	ENT 5102	Ear, Nose and Throat	27	40.5	81	4	4.5	112.5
3	PEDIA/P LAST 5103	Pediatric and plastic surgery	9	13.5	27	2	1.5	37.5
4	OPHTH 5104	Ophthalmology	30	45	90	5	5	125
5	ETHICS 5105	Ethical and legal issues in medical practice	All the semester (weekly)				1	25
6	ELE	*Elective Modules	All the semester (weekly)				1	25
7		*Integrated longitudinal Modules	All the semester (weekly)				0.5	12.5
Total			102	153	306	16	19.5	450

*Not included in marks T: theoretical P: practical A: Activities



Semester X :

Accredited



وحدة
ضمان
الجودة

	Code		Total hours			Weeks	Credit hour	Marks
			T	P	A			
1	EMER G 5201	Emergency and critical care	42	63	126	6	7	175
2	VAS 5202	Vascular surgery	6	9	18	1	1	25
3	ORTH/ RHEM 5203	Orthopedics and Rheumatology	30	45	90	4	5	125
4	FORE/ TOX 5204	Forensic medicine and Toxicology	36	54	108	5	6	150
5	ELE	*Elective Modules	All the semester (weekly)				1	25
6		*Integrated longitudinal Modules	All the semester (weekly)				0.5	12.5
Total			114	171	342	16	20.5	475

*Not included in marks T: theoretical P: practical A : Activities

V- Module Specification (Annex 2)

Competencies -Modules Matrix (Annex 3)

Program Learning Outcomes – Modules Matrix (Annex 4)

VI-Program admission requirements

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

VII- Regulations for progression and program completion:

The regulations for student progression are as follows:

The student should achieve at least 40% of the written exam of the module or the course, and 60% of the total marks of the module to pass the module.

Progression Level	Condition
Progression to Second level	Failing in less than 11 credit hours of the total credit hours with marks considered in the GPA
Progression to Third Level	Failing in less than 14 credit hours of the total credit hours with marks considered in the GPA
Progression to Fourth level	Failing in less than 10 credit hours of the total credit hours with marks considered in the GPA
Progression to Fifth Level	Failing in less than 13 credit hours of the total credit hours with marks considered in the GPA

To complete the program, the student should pass all the modules within the programs whether their marks are considered in the GPA or not.

VIII-Teaching and learning methods:

The teaching and learning in Menoufia Faculty of Medicine follows a strategy written in a code of good practice for effective teaching and learning.

Theoretical teaching:

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

Practical Teaching: using equipped laboratories with anatomy specimens, microscopes, and different tools for practical training

Clinical Teaching: conducted using:

- a) Clinical rounds
- b) Simulated patients
- c) Web based video and Multimedia applications
- d) Problem solving
- e) Skill lab

Field training: through field visits organized by the department of public health in its related modules, and hospital visits in some clinical modules.

IX- Student Assessment methods:

A. Attendance criteria:

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

B. 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- Assessment Tools:

Evaluation of Students level of performance is achieved by observation of rating scales and by applying variable types of tests as follows:

I. Assessment of cognitive skills is achieved by a written exam including:

- Questions recalling knowledge in the form of:
 - Short essay questions.
 - Multiple choice questions
 - Extended Matching questions
 - Short-answer questions
- Interpretation of specific data: by
 - Problem solving questions: though setting short, questions preceded by case history
 - Case Based multiple choice questions, and extended matching questions.

II. Assessment of psychomotor skills through setting:

- Evaluation of student activities
- Objective Structured Practical exams (OSPE).

- Objective Structured Clinical cases exams (OSCE).

III. Assessment of affective skills:

Through evaluation of presentations and observation of different student activities including role play, specially prepared stations in OSCE examinations

D- Summative Assessment methods, their weight and schedule:

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

D- Grading by GPA System:

%	Grade	Grade Points per credit	
90 - 100	A	3.5 - 4.00	Excellent
85 - 90		3.25 - 3.5	
75 - 85	B	2.75 - 3.25	Very good
65 - 75	C	2.25 - 2.75	Good
60 - 65	D	2.00 - 2.25	Pass
< 60	F	0.00	Failed
Withdraw	W	Incomplete	IC



X- Evaluation of program Learning Outcomes of the Module

The acquisition of program PLOs would be evaluated as shown in the following table.

Evaluator	Tool	Sample
1- Senior students	-Questionnaires -Review of assessment Methods -Review of examination results	Students in the last year
2- Alumni	-Questionnaires - Group discussions	Recently graduated within 5 years
3- Stakeholders	-Questionnaires - Focus group discussions	1-Directors of ministry of health and population Hospitals, medical Insurance. 2-Administrative staff in the Ministry of health (hospital)
4-External Evaluator(s) (External Examiner(s))	-Reports	External examiners in Each Module
5- Other (academic leaders of the faculty)	-Questionnaires - focus group discussions	Dean, Vice deans, directors of faculty Hospitals, heads of departments

Program Coordinator

Name:

Signature:

Annex 1

Academic Reference Standards (NARS 2017) Program aims Matrix

National Academic Reference Standards (Attributes of Medical Graduates)	M.B.B.CH. program (5+2 credit hours) aims
Work to maintain health and promote human well-being.	Provide primary health care as family physician/general practitioner, with emphasis on disease prevention and health promotion.
Behave professionally and adhere to medical ethics.	Adhere to professionalism and adopt the ethics of medical practice and respect the religious, cultural and humanity values.
Provide -quality and safe patient-centered care, focusing on primary health care and dealing with common health problems in his/her community.	Achieve the clinical and practical standards through a patient-centered care required to compete in the national labor market.
Value the importance of a good doctor/patient relationship, and work to establish and maintain it.	Achieve the clinical and practical standards through a patient-centered care required to compete in the national labor market.
Work effectively with other health care professionals respecting their roles and their contribution to the team.	Collaborate with other health care professionals, appreciating their role, respecting the hierarchy of the health care system with acquisition of the skills of professionalism and leadership.
Contribute to the development and empowerment of his/her community.	Employ the clinical practice for the service and improvement of the community.
Work as a lifelong learner- on his/her own continuous professional development, including being equipped to engage in post-graduate and research studies.	Continue self-learning and research to cope with the advancement in the medical field.

Annex 3

Key Competencies/ Program Learning Outcomes vs Modules

Key Competency	Program Learning Outcomes	Foundation 1	Foundation 2	Foundation 3	Foundation 4	Musculoskeletal 1	Musculoskeletal 2	Blood and Lymph	Communication	Respiratory	Cardiovascular	Nutrition	Gastrointestinal	Renal and Urinary System	Reproductive and Breast	Endocrine	CNS and special senses 1	CNS and special senses 2	Basic clinical examination	Dermatology	Community	Primary Health care and elderly care	Child Health	Investigations	Oncology	Clinical Psychology	Heart and Chest diseases	Endocrinology and Breast	Hematology and Lymphatics	Gynecology	Renal and urinary diseases and andrology	Obstetrics and family medicine	Gastroenterology and hepatology	Psychiatry and neurological diseases	Pediatrics and plastic surgery	Ear, Nose and Throat	Ophthalmology	Emergency and critical care	Orthopedics and rheumatology	Forensic medicine and toxicology	Vascular Medicine	Evidence Based Medicine	Basic Life support	Patient safety	Ethical and medicolegal issues	Vertical Integration Modules	Introduction to quality		
1.1	1.1.1 to 1.1.8																		X	X		X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
1.2	1.2.1 to 1.2.5																		X	X		X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
1.3	1.3.1 to 1.3.3																																		X														
1.4	1.4.1 to 1.4.9																		X	X		X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X	X									
1.5	1.5.1 to 1.5.10																		X	X		X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X									
1.6	1.6.1 to 1.6.6																			X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X											
1.7	1.7.1 to 1.7.8																		X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X									
1.8	1.8.1 to 1.8.6																		X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X								X		
1.9	1.9.1 to 1.9.11																																									X							
1.10	1.10.1 to 1.10.11																		X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X								X	
1.11	1.11.1 to 1.11.9																			X		X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X									

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45



Key Competency	Program Learning Outcomes	Foundation 1	Foundation 2	Foundation 3	Foundation 4	Musculoskeletal 1	Musculoskeletal 2	Blood and Lymph	Communication	Respiratory	Cardiovascular	Nutrition	Gastrointestinal	Renal and Urinary System	Reproductive and Breast	Endocrine	CNS and special senses 1	CNS and special senses 2	Basic clinical examination	Dermatology	Community	Primary Health care and elderly care	Child Health	Investigations	Oncology	Clinical Psychology	Heart and Chest diseases	Endocrinology and Breast	Hematology and Lymphatics	Gynecology	Renal and urinary diseases and andrology	Obstetrics and family medicine	Gastroenterology and hepatology	Psychiatry and neurological diseases	Pediatrics and plastic surgery	Ear, Nose and Throat	Ophthalmology	Emergency and critical care	Orthopedics and rheumatology	Forensic medicine and toxicology	Vascular Medicine	Evidence Based Medicine	Basic Life support	Patient safety	Ethical and medicolegal issues	Vertical Integration Modules	Introduction to quality					
4.2	4.2.1 to 4.2.5	x				x		X		x	x	x	x	x		x		x																																		
4.3	4.3.1 to 4.3.8	x																				x	x																													
4.4	4.4.1 to 4.4.4																																	x																		
4.5	4.5.1 to 4.5.4	x	x	x	x	x	x	X		x	x	x	x	x	x	x	x	x					x																													
4.6	4.6.1 to 4.6.5	x	x			x	x	X		x	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	x	x	x																																			
4.8	4.8.1 to 4.8.9	x	x	x	x	x	x	X		x	x	x	x	x	x	x	x	x																																		
5.1	5.1.1 to 5.1.5								X																																								X			
5.2	5.2.1 to 5.2.6	x	x	x	x	x	x	X	X	x	x	x	x	x	x	x	x	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
5.3	5.3.1 to 5.3.5								X																																											
5.4	5.4.1 to 5.4.6								X																																											
5.5	5.5.1 to 5.5.7								X																																											
5.6	5.6.1 to 5.6.4								X																																											
5.7	5.7.1 to 5.7.5								X																																											



Key Competency	Program Learning Outcomes	Foundation 1	Foundation 2	Foundation 3	Foundation 4	Musculoskeletal 1	Musculoskeletal 2	Blood and Lymph	Communication	Respiratory	Cardiovascular	Nutrition	Gastrointestinal	Renal and Urinary System	Reproductive and Breast	Endocrine	CNS and special senses 1	CNS and special senses 2	Basic clinical examination	Dermatology	Community	Primary Health care and elderly care	Child Health	Investigations	Oncology	Clinical Psychology	Heart and Chest diseases	Endocrinology and Breast	Hematology and Lymphatics	Gynecology	Renal and urinary diseases and andrology	Obstetrics and family medicine	Gastroenterology and hepatology	Psychiatry and neurological diseases	Pediatrics and plastic surgery	Ear, Nose and Throat	Ophthalmology	Emergency and critical care	Orthopedics and rheumatology	Forensic medicine and toxicology	Vascular Medicine	Evidence Based Medicine	Basic Life support	Patient safety	Ethical and medicolegal issues	Vertical Integration Modules	Introduction to quality											
5.8	5.8.1 to 5.8.6																			x	x																																					
5.9	5.9.1 to 5.9.4																			x																																						
5.10	5.10.1 to 5.10.4								X													x																																				
5.11	5.11.1 to 5.11.3																																																					x				
5.12	5.12.1 to 5.12.4								X																																												x					
6.1	6.1.1 to 6.1.4								X																																																	
6.2	6.2.1 to 6.2.9	x	x	x	x	x	x	X	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
6.3	6.3.1 to 6.3.5	x	x	x	x	x	x	X	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
6.4	6.4.1 to 6.4.3								x																																																	
6.5	6.5.1 to 6.5.5								x																																																	
6.6	6.6.1 to 6.6.6	x	x	x	x	x	x	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
6.7	6.7.1 to 6.7.5																																																									
6.8	6.8.1 to 6.8.4																																																									



Key Competency	Program Learning Outcomes		
	Foundation 1		
	Foundation 2		
	Foundation 3		
	Foundation 4		
	Musculoskeletal 1		
	Musculoskeletal 2		
	Blood and Lymph		
	Communication		
	Respiratory		
	Cardiovascular		
	Nutrition		
	Gastrointestinal		
	Renal and Urinary System		
	Reproductive and Breast		
	Endocrine		
	CNS and special senses 1		
	CNS and special senses 2		
	Basic clinical examination		
	Dermatology		
	Community		
	Primary Health care and elderly care		
	Child Health		
	Investigations		
	Oncology		
	Clinical Psychology		
	Heart and Chest diseases		
	Endocrinology and Breast		
	Hematology and Lymphatics		
	Gynecology		
	Renal and urinary diseases and andrology		
	Obstetrics and family medicine		
	Gastroenterology and hepatology		
	Psychiatry and neurological diseases		
	Pediatrics and plastic surgery		
	Ear, Nose and Throat		
	Ophthalmology		
	Emergency and critical care		
	Orthopedics and rheumatology		
	Forensic medicine and toxicology		
	Vascular Medicine	X	
	Evidence Based Medicine	X	
	Basic Life support		
	Patient safety		
	Ethical and medicolegal issues		
	Vertical Integration Modules		
	Introduction to quality		

Annex 4

Modules vs Teaching and Assessment Methods

Module	Teaching Methods												Assessment Methods								
	Recorded Lecture	Inverted Lecture	Interactive Lectures	Case Based Learning	Team Based Learning	Practical Sessions	Clinical Rounds	Bedside Clinical Teaching	Skill Lab	Jigsaw learning	Field Training	Self-Directed Learning	Formative Assessment			Summative Assessment					
													Theoretical	Practical	Clinical	Written	OSPE	OSCE	Assignments	Quizzes	Participation
Foundation 1			x	x		x						x	x	x		x	x		x	x	x
Foundation 2			x	x		x						x	x	x		x	x		x	x	x
Foundation 3			x	x		x						x	x	x		x	x		x	x	x
Foundation 4			x	x		x						x	x	x		x	x		x	x	x
Vertical Integration 1			x									x	x			x			x	x	x
Introduction to Quality			x	x								x	x			x			x	x	x
Musculoskeletal 1			x	x		x						x	x	x		x	x		x	x	x
Musculoskeletal 2			x	x		x						x	x	x		x	x		x	x	x
Blood and Lymphatics			x	x		x						x	x	x		x	x		x	x	x
Communication Skills and Medical Professionalism			x	x								x	x			x			x	x	x
Vertical Integration 2			x	x								x	x			x			x	x	x
Social Issues			x									x	x			x			x	x	x
Respiratory System			x	x		x						x	x	x		x	x		x	x	x
Cardiovascular System			x	x		x						x	x	x		x	X		x	x	x
Nutrition			x	x		x						x	x	x		x	X		x	x	x
EBM, Basics of Medical research and Biostatistics			x	x								x	x			x			x	x	x
Vertical Integration 3			x	x								x	x			x			x	x	x
Gastrointestinal System			x	x		x			X			x	x	x		x	x		x	x	x



Module	Teaching Methods												Assessment Methods								
	Recorded Lecture	Inverted Lecture	Interactive Lectures	Case Based Learning	Team Based Learning	Practical Sessions	Clinical Rounds	Bedside Clinical Teaching	Skill Lab	Jigsaw learning	Field Training	Self-Directed Learning	Formative Assessment			Summative Assessment					
													Theoretical	Practical	Clinical	Written	OSPE	OSCE	Assignments	Quizzes	Participation
Renal and Urinary System			x	x		x						x	x	x		x	x		x	x	x
Reproductive System and Breast			x	x		x			x			x	x	x		x	x		x	x	x
Vertical integration 4			x	x								x	x			x			x	x	x
Endocrine			x	x		x						x	x	x		x	x		x	x	x
CNS & Special Senses (1)			x	x		x						x	x	x		x	x		x	x	x
CNS & Special Senses (2)			x	x		x						x	x	x		x	x		x	x	x
Basic Life Support			x	x								x	x			x			x	x	x
Vertical Integration 5			x	x								x	x			x			x	x	x
Basic Clinical Examination			x	x	x		x					x	x		x	x		x	x	x	x
Dermatology	x	x		x	x		x					x	x		x	x		x	x	x	x
Community Medicine	x	x		x	x		x				x	x	x		x	x		x	x	x	x
Primary Health care and Elderly Care	X	X		x	x		x			x	x	x	x		x	x		x	x	x	x
Child Health	x	x		x	x		x	x				x	x		x	x		x	x	x	x
Investigations	x	x		x	x		x					x	x		x	x		x	x	x	x
Oncology	x	x		x	x							x	x		x	x		x	x	x	x
Clinical Psychology	x	x		x								x	x			x			x	x	x
Vertical Integration 6	x	x		x			x					x	x			x			x	x	x
Heart and Chest Diseases	x	x		x	x		x	x	x			x	x		x	x		x	x	x	x
Endocrinology and Breast	x	x		x	x		x	x				x	x		x	x		x	x	x	x
Hematology and Lymphatics	x	x		x	x		x	x	x		x	x	x		x	x		x	x	x	x
Gynecology	x	x		x	x		x	x				x	x		x	x		x	x	x	x



Module	Teaching Methods												Assessment Methods								
	Recorded Lecture	Inverted Lecture	Interactive Lectures	Case Based Learning	Team Based Learning	Practical Sessions	Clinical Rounds	Bedside Clinical Teaching	Skill Lab	Jigsaw learning	Field Training	Self-Directed Learning	Formative Assessment			Summative Assessment					
													Theoretical	Practical	Clinical	Written	OSPE	OSCE	Assignments	Quizzes	Participation
Patient Safety and Infection Control	x	x										x	x			x			x		x
Vertical Integration 7	x	x		x								x	x			x			x	x	x
Renal and urinary Diseases and Andrology	x	x		x	x		x	x				x	x		x	x		x	x	x	x
Obstetrics and family Medicine	x	x		x	x		x	x	x			x	x		x	x		x	x	x	x
Gastroenterology, hepatology, and infectious diseases	x	x		x	x		x	x				x	x		x	x		x	x	x	x
Vertical Integration 8	x	x		x	x							x	x			x			x	x	x
Psychiatry and Neurology	x	x		x	x		x	x				x	x		x	x		x	x	x	x
Ear, Nose and Throat	x	x		x	x		x					x	x		x	x		x	x	x	x
Pediatric and Plastic Surgery	x	x		x	x		x	x				x	x		x	x		x	x	x	x
Ophthalmology	x	x		x	x		x					x	x		x	x		x	x	x	x
Ethical and Legal Issues in Medical Practice	x	x										x	x			x			x	x	x
Vertical Integration 9	x	x		x								x	x			x			x	x	x
Emergency and Critical Care	x	x		x	x		x	x	x			x	x		x	x		x	x	x	x
Vascular Surgery	x	x		x	x		x	x				x	x		x	x		x	x	x	x
Orthopedics and Rheumatology	x	x		x	x		x	x				x	x		x	x		x	x	x	x
Forensic Medicine and Toxicology	x	x		x	x		x					x	x		x	x		x	x	x	x
Vertical integration 10	x	x		x								x	x			x			x	x	x

Annex 5

Key Competencies/ Program Learning Outcomes vs Teaching and Assessment Methods

Key Competency	Program Learning Outcomes	Teaching Methods												Assessment Methods								
		Recorded Lecture	Inverted Lecture	Interactive Lectures	Case Based Learning	Team Based Learning	Practical Sessions	Clinical Rounds	Bedside Clinical Teaching	Skill Lab	Jigsaw Learning	Field Training	Self-Directed Learning	Formative Assessment			Summative Assessment					
														Theoretical	Practical	Clinical	Written	OSPE	OSCE	Assignments	Quizzes	participation
1.1	1.1.1 to 1.1.8							x	x							x			x	x		x
1.2	1.2.1 to 1.2.5				x			x	x							x			x			x
1.3	1.3.1 to 1.3.3			x			x						x				x			x		x
1.4	1.4.1 to 1.4.9							x	x							x			x	x		x
1.5	1.5.1 to 1.5.10	x	x	x	x	x		x					x	x		x	x		x		x	x
1.6	1.6.1 to 1.6.6	x	x	x	x	x		x	x				x	x		x	x		x		x	x
1.7	1.7.1 to 1.7.8				x			x						x			x					
1.8	1.8.1 to 1.8.6	x	x	x	x	x							x	x			x			x	x	x
1.9	1.9.1 to 1.9.11																					
1.10	1.10.1 to 1.10.11				x	x		x					x	x		x	x		x		x	x
1.11	1.11.1 to 1.11.9							x	x							x		x				x



Key Competency	Program Learning Outcomes	Teaching Methods												Assessment Methods								
		Recorded Lectures	Inverted Lecture	Interactive Lectures	Case Based Learning	Team Based Learning	Practical Sessions	Clinical Rounds	Bedside Clinical Teaching	Skill Lab	Jigsaw Learning	Field Training	Self-Directed Learning	Formative Assessment			Summative Assessment					
														Theoretical	Practical	Clinical	Written	OSPE	OSCE	Assignments	quizzes	participation
1.12	1.12.1 to 1.12.5	x	x										x	x			x			x		x
1.13	1.13.1 to 1.13.5	x	x					x						x		x	x		x		x	
1.14	1.14.1 to 1.14.5	x	x										x	x			x			x	x	x
1.15	1.15.1 to 1.15.7				x			x	x					x		x	x		x		x	x
1.16	1.16.1 to 1.16.7	x	x		x			x					x	x		x	x		x	x	x	x
1.17	1.17.1 to 1.17.7	x	X		x			x					x	X		x	x		x	x	x	x
2.1	2.1.1 to 2.1.4	x	x		X	x		x				x	x	x		x	x		x	X	x	x
2.2	2.2.1 to 2.2.5	x	x		x	x		x				x	x	x		x	x		x	x	x	x
2.3	2.3.1 to 2.3.8	x	x		x	x		x				x	x	x		x	x		x	x	x	x
2.4	2.4.1 to 2.4.5	x	x		x	x		x				x	x	x		x	x		x	x	x	x
2.5	2.5.1 to 2.5.8	x	x		x	x		x				x	x	x		x	x		x	x	x	x
2.6	2.6.1 to 2.6.6	x	x		x	x							x	x			x				x	x



Key Competency	Program Learning Outcomes	Teaching Methods												Assessment Methods								
		Recorded Lecture	Inverted Lecture	Interactive Lectures	Case Based Learning	Team Based Learning	Practical Sessions	Clinical Rounds	Bedside Clinical Teaching	Skill Lab	Jigsaw Learning	Field Training	Self-Directed Learning	Formative Assessment			Summative Assessment					
														Theoretical	Practical	Clinical	Written	OSPE	OSCE	Assignments	quizzes	participation
2.7	2.7.1 to 2.7.4	x	x		x	x		x					x	x		x	x		X	x	x	x
2.8	2.8.1 to 2.8.8	x	x		x	x		x					x	x		x	x		X	x	x	x
2.9	2.9.1 to 2.9.6							x	x							x			x			x
3.1	3.1.1 to 3.1.8							x	x							x			x			x
3.2	3.2.1. to 3.2.5	x	x										x	x			x				x	
3.3	3.3.1 to 3.3.3	x	x										x	x			x				x	
3.4	3.4.1 to 3.4.4							x	x							x			x			x
3.5	3.5.1 to 3.5.3	x	x										x	x			x				x	
3.6	3.6.1 to 3.6.6	x	x										x	x			x				x	
3.7	3.7.1 to 3.7.4	x	x										x	x			x				x	
3.8	3.8.1 to 3.8.4							x	x							x			x			x
3.9	3.9.1 to 3.9.4	x	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 4.2.5			x	x								x	x			x			x	x	x
4.3	4.3.1 to 4.3.8			x	x								x	x			x			x	x	x



Key Competency	Program Learning Outcomes	Teaching Methods												Assessment Methods								
		Recorded Lecture	Inverted Lecture	Interactive Lectures	Case Based Learning	Team Based Learning	Practical Sessions	Clinical Rounds	Bedside Clinical Teaching	Skill Lab	Jigsaw Learning	Field Training	Self-Directed Learning	Formative Assessment			Summative Assessment					
														Theoretical	Practical	Clinical	Written	OSPE	OSCE	Assignments	quizzes	participation
4.4	4.4.1 to 4.4.4			x	x								x	x			x			x	x	x
4.5	4.5.1 to 4.5.4			x	x								x	x			x			x	x	x
4.6	4.6.1 to 4.6.5			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 4.8.9			x	x								x	x			x			x	x	x
5.1	5.1.1 to 5.1.5			x			x	x					x	x			x			x	x	x
5.2	5.2.1 to 5.2.6			x			x	x					x	X			x			x	x	x
5.3	5.3.1 to 5.3.5			x	x								x	x			x			x	x	x
5.4	5.4.1 to 5.4.6			x	x								x	x			x			x	x	x
5.5	5.5.1 to 5.5.7			x	x								x	x			x			x	x	x
5.6	5.6.1 to 5.6.4			x	x								x	x			x			x	x	x
5.7	5.7.1 to 5.7.5			x	x								x	x			x			x	x	x
5.8	5.8.1 to 5.8.6	x	x	x	x	x							x	x			x				x	x
5.9	5.9.1 to 5.9.4	x	x	x	x	x							x	x			x				x	x



Key Competency	Program Learning Outcomes	Teaching Methods												Assessment Methods								
		Recorded Lecture	Inverted Lecture	Interactive Lectures	Case Based Learning	Team Based Learning	Practical Sessions	Clinical Rounds	Bedside Clinical Teaching	Skill Lab		Field Training	Self-Directed Learning	Formative Assessment			Summative Assessment					
														Theoretical	Practical	Clinical	Written	OSPE	OSCE	Assignments	quizzes	participation
5.10	5.10.1 to 5.10.4							x					x			x			x		x	
5.11	5.11.1 to 5.11.3			x									x	x			x			x		
5.12	5.12.1 to 5.12.4			x									x	x			x			x		
6.1	6.1.1 to 6.1.4			x	x								x	x			x			x	x	
6.2	6.2.1 to 6.2.9												x	x	x	x	x	x	x	x	x	
6.3	6.3.1 to 6.3.5												x	x	x	x	x	x	x	x	x	
6.4	6.4.1 to 6.4.3			x	c								c	c			c			c	c	
6.5	6.5.1 to 6.5.5												x	x	x	x	x	x	x	x	x	
6.6	6.6.1 to 6.6.6			x	c								c	c			c			c	c	
6.7	6.7.1 to 6.7.5			x	c								c	c			c			c	c	
6.8	6.8.1 to 6.8.4			x	c								c	c			c			c	c	
.9	6.9.1 to 6.9.5			x	c								c	c			c			c	c	
6.10	6.10.1 to 6.10.3			x	c								c	c			c			c	c	



Semester I

Foundation I

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title: Foundation I (Anatomy - Embryology and Histology)

Code: INTRO-ANAT/EMB/HIST 1101

Department offering the Module: Anatomy and histology departments

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

Academic year: 1st Year

Semester: I

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by faculty council: 2018

Credit hours: 5.5 credit hours / 4 weeks.

	Teaching hours		
	Lectures	Practical	Activities
Anatomy department	21	31.5	63
Histology department	12	18	36
Total	33	49.5	99

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.

III- 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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Identify different anatomical position, and terminology-.</p> <p>4.1.2. Identify the integumentary, skeletal and muscular systems.</p> <p>4.1.3. Describe the basic anatomical structure of body bones.</p> <p>4.1.4. Demonstrate the surface landmarks of the underlying bones, muscles, joints and tendons.</p> <p>4.1.5. Define the structure and functions of the cytoplasmic components.</p> <p>4.1.6. Explain the process of cell division and identify the activities that control the transition from each phase of the cell cycle to the other.</p> <p>4.1.7. Clarify the structural characteristics of the two basic tissue types (epithelium and Connective tissue).</p> <p>4.1.8. Describe the functional capabilities of each tissue type and relate them to the structure.</p> <p>4.1.9. Integrate basic anatomical and histological data.</p> <p>4.1.10. Correlate the structure with the function of different cells in tissues and organs.</p> <p>4.1.11. Construct structures that could be present in a cell from its function</p> <p>4.1.12. Relate the composition of each tissue type to its specific functions.</p>

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

<p>4.3 Recognize and describe main developmental changes in humans and the effect of growth, development and aging on the individual and his family.</p>	<p>4.3.1. Identify the changes in human development from fertilization, 1st week, 2nd week, 3rd week changes.</p> <p>4.3.2. Correlate his knowledge in embryology with clinical findings caused by errors in development.</p>
<p>4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).</p>	<p>4.5.1. Explain the basis of cytogenetics and chromosomal aberrations.</p> <p>4.5.2. Describe different birth defects caused by faulty embryological development.</p>
<p>4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.</p>	<p>4.6.1. Predict the intracellular or tissue components likely to be involved in a functional deficit.</p>



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| <p>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.</p> | <p>4.8.1. Describe the basic steps in preparing specimens for light and electron microscopy.</p> <p>4.8.2. Apply the anatomical facts while examining the living subject in order to reach a proper diagnosis.</p> <p>4.8.3. Interpret the normal anatomical structures on radiographs.</p> <p>4.8.4. Interpret the electron microscopic appearance of different cellular and intracellular components in electron photomicrographs</p> <p>4.8.5. Interpret the light microscopic appearance of normal cells, tissues and organs.</p> <p>4.8.6. Conclude the normal structure of any given histological slide.</p> <p>4.8.7. Identify dissected structures of the upper limb, thorax, abdomen, pelvis and perineum according to the present relations.</p> <p>4.8.8. Distinguish consistency of arteries, veins and nerves.</p> <p>4.8.9. Draw diagrams showing different structures, organs and their relations.</p> <p>4.8.10. Identify the mechanical and the optical components of light microscope.</p> <p>4.8.11. Examine hematoxylin and eosin-stained slides under the microscope.</p> <p>4.8.12. Adjust the slide at the high power (1000) in light microscope.</p> |
|--|--|

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

Key competency	Module LOs
<p>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.</p>	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>



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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		
TOPICS	TEACHING HOURS	DEPARTMENT
Anatomical position, terminology- Integumentary system- Muscular system	2	Anatomy
Skeletal system (cartilage-bone)	2	Anatomy
Joints	2	Anatomy
Blood and lymphatic vessels	1.5	Anatomy
Nervous system	2	Anatomy
Gametogenesis	2	Anatomy
Female reproductive cycles, fertilization and implantation	2	Anatomy
Events of the second week after fertilization	1.5	Anatomy
Events of the third week after fertilization	2	Anatomy
Events of the fourth week after fertilization	2	Anatomy
Revision	2	Anatomy
Cytology (membranous organelles)	2	Histology
Non membranous Organelles and Cell inclusion	2	Histology
Nucleus and nucleolus.	2	Histology
Cytogenetic and chromosomal abnormalities	2	Histology
Epithelial tissue	2	Histology



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Connective tissue	2	Histology
Total	33	
PRACTICAL		
TOPICS	TEACHING HOURS	DÉPARTEMENT
Regional terms, body cavities, serous membranes.	2	Anatomy
Organization of the body systems,		
Skin, fascia (tendon, aponeurosis, ligament, retinaculum).	2	Anatomy
Muscles, blood vessels (artery and vein)		
Bony skeleton, cartilage, general features of the bone, parts of long bone.	2	Anatomy
Clavicle, scapula	2	Anatomy
Humerus, radius	2	Anatomy
ulna, hand	2	Anatomy
Radiological anatomy of upper limb bones	2	Anatomy
Hip, femur	2	Anatomy
Tibia, fibula, foot	2	Anatomy
Radiological anatomy of lower limb bones	2	Anatomy
1st week changes	2	Anatomy
2nd week changes	2	Anatomy
3rd week changes, 4th week changes	2	Anatomy
Fetal membranes	2	Anatomy
Revision	2	Anatomy
Revision	1.5	Anatomy
Microscope, Micro-technique	2	Histology
Membranous organelles (cell membrane and mitochondria RER, SER and Golgi apparatus)	2	Histology
Non-membranous organelles & cell inclusions	2	Histology
Nucleus and Mitotic Cell division	2	Histology
Epithelial tissue	2	Histology
Connective tissue C.T (lig.Nuchae + umbilical cord)	2	Histology
Revision	2	Histology
Revision	2	Histology
Revision	2	Histology
Total	49.5	

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

VI- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment methods and schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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,	At the end of the semester

give reason, matching,
extended matching,
complete and compare.

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	55	40%
Final Practical exam.	41.25	30%
Activities	41.25	30%
Total	137.5	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 the module departments:
- Essential Books:

Anatomy:

- Gray's Anatomy for Students. 3rd Edition. By: Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Histology:

- Junqueira's Basic Histology: Text and Atlas, 15th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2018.
- Wheater's Functional Histology, 6th Edition. By: Barbara Young, Geraldine O'Dowd, Phillip Woodford. Churchill Livingstone, 2014.
- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.



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VII- Facilities required for

teaching and learning:

- 1-Faculty Lecture halls
- 2-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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.13	x	x		x	x		x		x	x	x
4.3	4.3.1, 4.3.2	x	x		x	x		x		x	x	x
4.5	4.5.1, 4.5.2	x	x		x	x		x		x	x	x
4.6	4.6.1	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.12			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. Noha Abdelaziz

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy



Foundation 2

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module title: Foundation 2 (Physiology and Biochemistry)

Code: INTRO-PHYS/BIO1102

Departments offering the Module: Physiology & Biochemistry Departments

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

Academic year: 1st Year

Semester: I

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 2.5 credit hours / 2 weeks.

	Teaching hours		
	Lectures	Practical	Activities
Physiology department	6	9	18
Biochemistry department	9	13.5	27
Total	15	22.5	45

B-Professional information

I- Aim of the Module:

To provide 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.



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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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Describe the functions of the cell membrane and every organelle of the cytoplasm including mitochondria, endoplasmic reticulum, Golgi tendon organ, lysosomes, ribosomes, centriole and tubular system.</p> <p>4.1.2. Recognize the different fluid compartments of the body and the composition of the body fluid in each of them.</p> <p>4.1.3. Identify the mechanisms of transport of different substances across the cell membrane.</p> <p>4.1.4. Define homeostasis and negative and positive feedback mechanisms</p> <p>4.1.5. Recall examples of homeostasis in the different human body systems.</p> <p>4.1.6. Name the components of an autonomic reflex.</p> <p>4.1.7. Compare the structural and functional differences between the somatic and autonomic nervous systems.</p> <p>4.1.8. Classify the autonomic N.S</p> <p>4.1.9. Compare the structural differences between sympathetic and parasympathetic nervous system,</p> <p>4.1.10. Identify the types of autonomic ganglia.</p>



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		<p>4.1.11. Summarize the functions of sympathetic and parasympathetic nervous system on different parts of the body.</p> <p>4.1.12. Recognize the chemical neurotransmitters of autonomic nervous system</p> <p>4.1.13. Distinguish the distribution of adrenergic and cholinergic receptors all over the body</p>
4.2	Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	<p>4.2.1. Describe the types, structure, functions and isomerism of carbohydrates and importance of sugars and sugar derivatives.</p> <p>4.2.2. Recognize the types, structure and functions of lipids and importance of the compound and derived lipids.</p> <p>4.2.3. Describe different amino acids and protein structure, classification and properties as well as structure and functions of hemoglobin.</p> <p>4.2.4 Define nature of enzymes, mechanisms of action, isoenzymes, different classes of enzymes and their role in the diagnosis of diseases.</p>
4.5	Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1 Interpret cellular changes when present in different diseases.</p>
4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1 Interpret biochemical laboratory findings of carbohydrates, lipids and proteins.</p> <p>4.6.2 Relate the biochemical laboratory findings to clinical disease processes</p> <p>4.6.3 Predict the outcome of a disturbed function.</p> <p>4.6.4 Solve problems through case study</p>



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<p>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.</p>	<p>4.8.1 Differentiate between different cases of fluid volume expansion and contraction.</p> <p>4.8.2 Perform simple blood tests, interpret them, and estimate plasma and body fluids volumes.</p> <p>4.8.3 Apply Fick's principle in different dye-based dilution techniques.</p> <p>4.8.4 Plot data charts to clarify different physiological or pathophysiological states.</p> <p>4.8.5 Deal with laboratory reagents and instruments used in biochemistry laboratory.</p> <p>4.8.6 Identify the physical and chemical properties of carbohydrates and proteins</p> <p>4.8.7 Perform chemical reactions to identify different types of carbohydrates and active groups of proteins.</p>
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Competency Area 5: The graduate as a member of the health team and part of the health care system.

Key competency	Module LOs
<p>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.</p>	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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

Key competency	Module LOs
<p>6.2 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice.</p>	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
<p>6.3</p>	



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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
Basic concepts of general Physiology		1.5	Physiology
General divisions of autonomic nervous system and autonomic ganglia.		1.5	Physiology
Functions of sympathetic and parasympathetic nervous system.		1.5	Physiology
Chemical transmitters of autonomic		1.5	Physiology
Monosaccharides and Disaccharides		1.5	Biochemistry
Polysaccharides		1.5	Biochemistry
Types of amino acids.		1.5	Biochemistry
The structure and classification of proteins.		1.5	Biochemistry
Classification of lipids		1.5	Biochemistry
Enzymes of clinical importance measurement and case presentation structure and its characteristics, Classification of enzymes Cofactors, coenzymes, isoenzymes and regulation.		1.5	Biochemistry
Total Hours		15 hr.	
PRACTICAL			
TOPIC		TEACHING HOURS	DEPARTMENT
Cell organelles		1.5	Physiology
Dye-dependent dilution methods.		1.5	Physiology
Estimation of plasma Volume		1.5	Physiology
Homeostasis		1.5	Physiology
Osmotic fragility		1.5	Physiology
Revision		1.5	Physiology
Identification	of biochemistry laboratory	1.5	Biochemistry



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Carbohydrate physical Properties.	1.5	Biochemistry
Carbohydrate chemical properties	1.5	Biochemistry
Protein physical properties	1.5	Biochemistry
Protein chemical properties	1.5	Biochemistry
General CHO and protein scheme	1.5	Biochemistry
Enzymes of clinical importance measurement and case presentation, Enzymes inhibitors.	1.5	Biochemistry
Curves and revision on the scheme	1.5	Biochemistry
Revision	1.5	Biochemistry
Total	22.5 hrs	

IV– Teaching and learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

2. Practical Teaching: conducted using:

- Practical sessions

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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



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C- Summative Assessment

methods and schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give a reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	25	40%
Final Practical exam.	18.75	30%
Activities	18.75	30%
Total	62.5	100%

E- Grading for by GPA System:

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

VI. List of references and resources:

- **Lecture Notes of the module departments:**
- **Essential Books:**

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.

Biochemistry:

- Harper's Illustrated Biochemistry 31st Edition. By: Victor W. Rodwell, David Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil. McGraw Hill / Medical, 2018.
- Lippincott's Illustrated Reviews Biochemistry, 7TH Edition. By: Denise Ferrier. LWW, 2017.
- 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-labs equipped with materials & devices.
- 3-Faculty library for textbooks & electronic library for web search.
- 4-Audiovisual aids as boards, data show and computers

Key Competencies & Module LOs – Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.13	x	x		x	x		x		x	x	x
4.2	4.2.1, 4.2.4	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 4.6.4	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.7			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. Noha Abdelaziz

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Foundation 3

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title: Foundation 3 (Pathology/ Pharmacology)

Code No: INTRO-PATH/PHAR1103

Department offering the Module: Pathology and pharmacology departments

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

Academic year: First year

Semester: I

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Total hours: 6.5 credit hours/ 6 weeks

	Teaching hours		
	Lectures	Practical	Activities
Pathology	22.5	33.75	67.5
Pharmacology	16.5	24.75	49.5
Total	39	58.5	117

B-Professional information

I- Aim of Module:

To provide the students with the principals 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.

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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1 Identify the etiology, types and natural course of different types of Inflammation</p> <p>4.5.2 Describe the mechanism of tissue repair.</p> <p>4.5.3 Outline different types of cell injury, body response to them, fate, and complications.</p> <p>4.5.4 Identify the different types of intracellular accumulation, their etiopathogenesis, gross and microscopic picture, fate, and complications.</p> <p>4.5.5 Describe different types of circulatory disturbances, their pathogenesis, fate, and complication.</p> <p>4.5.6 Define different types of growth disturbance</p> <p>4.5.7 Classify benign tumors, their gross and microscopic pictures.</p> <p>4.5.8 Classify different types of malignant tumors, their gross and microscopic pictures.</p>

<p>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.</p>	<p>4.7.1 Describe the general principles of drugs and mode of action and recall the rational approach to drug therapy</p> <p>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.</p> <p>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.</p> <p>4.7.4 Identify the mechanism of action, indications, contraindications, adverse effects and drug interactions of sympathomimetics</p> <p>4.7.5 Describe the mechanism of action, indications, contraindications, adverse effects and drug interactions of sympatholytic drugs.</p> <p>4.7.6 Identify the mechanism of action, indications, contraindications, adverse effects and drug interactions of parasympathomimetic</p> <p>4.7.7 Describe the mechanism of action, indications, contraindications, adverse effects and drug interactions of parasympatholytic drugs.</p> <p>4.7.8 Outline general mechanisms of action of different chemotherapeutics</p> <p>4.7.9 Identify the rational antimicrobials prescription</p> <p>4.7.10 Identify the rational antimicrobials combinations</p> <p>4.7.11 Explain the general mechanisms of bacterial resistance to antimicrobials</p>
<p>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.</p>	<p>4.8.1 Apply the rules of laboratory ethics and safety measures while in the lab or in the museum.</p> <p>4.8.2 Use the light microscope to examine and identify microscopic findings of some selected examples of studied diseases.</p> <p>4.8.3 Interpret the results of experiments to identify the site of action of unknown drugs.</p> <p>4.8.4 Perform experiments that test the response of isolated and intact preparations (of animals) to some selected drugs.</p>

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>

III. Module Contents: -

THEORETICAL		
Topic	TEACHING HOURS	DEPARTMENT
Inflammation	2	Pathology
Repair	2	Pathology
Cell Injury	2	Pathology

Cellular Accumulation	2	Pathology
Hemodynamics (1)	2	Pathology
Hemodynamics (2)	2	Pathology
T. B	2	Pathology
Bilharziasis	2	Pathology
Growth disturbance	2	Pathology
Neoplasia (1)	1	Pathology
Neoplasia (2)	1.5	Pathology
Revision	2	Pathology
Pharmacokinetics (General)	1.5	Pharmacology
Pharmacology absorption & distribution).	1.5	Pharmacology
Pharmacodynamics	1.5	Pharmacology
Sympathomimetics	1.5	Pharmacology
Sympatholytic (α blockers)	1.5	Pharmacology
Prescription Writing	1.5	Pharmacology
Sympatholytic (β blockers)	1.5	Pharmacology
Parasympathomimetic	1.5	Pharmacology
Parasympatholytic (1)	1.5	Pharmacology
Parasympatholytic (2)	1.5	Pharmacology
General Chemotherapy	1.5	Pharmacology
Total Hours	39 hr.	
PRACTICAL		
TOPIC	TEACHING HOURS	DEPARTMENT
Inflammation (1)	2	Pathology
Inflammation (2)	2	Pathology
Repair	2	Pathology
Cell Injury	2	Pathology
Cellular Accumulation (1)	2	Pathology
Cellular Accumulation (2)	1.5	Pathology
T. B	2	Pathology
Haemodynamics (1)	2	Pathology
Haemodynamics (2)	2	Pathology
Bilharziasis	2	Pathology
Growth disturbance (1)	2	Pathology

Growth disturbance (2)	2	Pathology
Neoplasia (1)	2	Pathology
Neoplasia (2)	2	Pathology
Neoplasia (3)	2	Pathology
Revision (1)	2	Pathology
Revision (2)	2.25	Pathology
Categories of drugs	2	Pharmacology
Sources of drugs	2	Pharmacology
Routes of drug administration (part 1)	2	Pharmacology
Routes of drug administration (part 2)	2	Pharmacology
Dosage forms of the drugs (part 1)	2	Pharmacology
Dosage forms of the drugs (part 2)	1.5	Pharmacology
New Drug Development	2	Pharmacology
Drug Dosage calculations (1)	2	Pharmacology
Drug Dosage calculations (2)	2	Pharmacology
Dose response curve relationship	2	Pharmacology
Experimental Pharmacology (1)	2	Pharmacology
Experimental Pharmacology (2)	1.25	Pharmacology
Revision	2	Pharmacology
Total	58.5hr.	

IV– Teaching and learning Methods:

1. Theoretical Teaching:

c) Interactive lectures: using

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

d) Case Based learning

2. Practical Teaching: conducted using:

- Practical sessions

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes 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
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	65	40%
Final Practical exam.	48.75	30%
Activities	48.75	30%
Total	162.5	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
- Essential Books:

Pathology:

- Robbins Basic Pathology (Robbins Pathology) 10th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2017.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 4th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2013

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.
- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013.

VII- Facilities required for teaching and learning:

1-Faculty Lecture halls

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

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.5	4.5.1 to 4.5.8	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 4.8.4			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:

Name: Prof. Dr. Zeinab Kasemy

Foundation 4

University: Menoufia

Faculty: Medicine

A - Administrative Information

Title: Foundation 4 (Parasitology & Microbiology)

Code: INTRO-PARA/MICRO1104

Department offering the Module: Parasitology & Microbiology Departments

Program on which the Module is given: Menoufia M.B.B. ChCredit- hour Program (5+2)

Academic year: 1st Year

Date of specification: 2018

Date of approval by Department: 2018

Date of approval by Faculty Council: 2018

Credit hours: 4.5 credit hours/ 4 weeks

	Teaching hours		
	Lectures	Practical	Activities
Microbiology	24.6	36.9	73.8
Parasitology	2.4	3.6	7.2
Total	27	40.5	81

B-Professional information

I- Aim of Module

This module enables the students to identify the basic knowledge in Microbiology including classifications, differentiation, and management of different micro-organisms, and to classify parasites and differentiate between them, demonstrate the role of vectors and snails in the life cycle of the parasites.

II- Learning Outcomes of the Module (LOs)

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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.3.1 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1 Identify the main differences between prokaryotes and eukaryotes, recognize different components of the bacterial cell, and outline the functions for each component of the bacterial cell.</p> <p>4.5.2 Define bacterial endospores and recognize their medical importance and outline the essential requirements for bacterial survival and replication.</p> <p>4.5.3 Define pathogen virulence factors and outline ideal antimicrobial agents and their complications.</p> <p>4.5.4 Identify bacterial genome and describe bacteriophage structure and differentiate between its types</p> <p>4.5.5 Describe plasmids, their function and classify them.</p> <p>4.5.6 Classify Gram-positive & -negative cocci. Describe morphology and culture characters. Enumerate the virulence factors. List the diseases caused by them. Formulate proper management plan.</p> <p>4.5.7 Classify Gram-positive bacilli. Describe morphology and culture characters. Enumerate the virulence factors. List the diseases caused by them. Formulate proper management plan.</p> <p>4.5.8 Classify Gram-negative bacilli. Describe morphology and culture characters. Enumerate the</p>

- 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

		<p>conditions and select the most appropriate and cost-effective tool leading to the identification of the causative organism.</p> <p>4.5.27 Evaluate according to evidence the causal relationship of microbes and diseases</p> <p>4.5.28 Categorize a microorganism as a bacterium, virus or fungus according to standard taxonomy</p> <p>4.5.29 Integrate basic information about life cycles, clinical picture and complications to point out the diagnostic test of choice to confirm or exclude the provisional diagnosis.</p> <p>4.5.30 Analyze theoretical information to select the most appropriate diagnosis from differential diagnosis.</p> <p>4.5.31 Point out a differential diagnosis for each parasitic disease.</p> <p>4.5.32 Interpret & integrate the laboratory diagnosis and treatment measures</p> <p>4.5.33 Integrate basic information about classification, taxonomy of parasites and how to differentiate between different classes.</p>
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.	<p>4.8.1 Perform a Gram stain and a Zeihl-Neelsen stain.</p> <p>4.8.2 Identify morphology and characteristics of medically important bacteria by microscopic examination of stained preparations.</p> <p>4.8.3 Examine and identify culture media and biochemical tests commonly used for bacterial identification and distinguish positive and negative results.</p> <p>4.8.4 Perform hand wash and control of steam sterilization.</p> <p>4.8.5 Draw parasites in their different stages specially the diagnostic and infective stages through examination of microscopic slides.</p> <p>4.8.6 Identify some parasites or their stages by naked eyes (Jars).</p> <p>4.8.7 Examine mounted slides or boxes to identify the most important arthropods of medical interest.</p>

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>

III. Module Contents:

THEOROTICAL		
Topic	TEACHING HOURS	DEPARTMENT
Bacterial Structure and physiology	2	Microbiology
Antimicrobial chemotherapy- host parasite relationship	2	Microbiology
Bacterial Genetics	2	Microbiology
Gram+ve cocci	2	Microbiology
Gram –ve cocci	2	Microbiology
Gram positive bacilli	2	Microbiology
Gram negative bacilli	2	Microbiology
Spirochetes + mycobacterium	2	Microbiology

Atypical bacteria	2	Microbiology
Mycology	2	Microbiology
General virology	2	Microbiology
RNA viruses	1	Microbiology
DNA viruses	1.6	Microbiology
Introduction to medical parasitology, Class trematoda & Class cestode.	1.2	Parasitology
Class nematode, Medical protozoa and Vectors transmitting parasitic infections.	1.2	Parasitology
Total Hours	27 hrs.	
PRACTICAL		
TOPIC	TEACHING HOURS	DEPARTMENT
Microscopes	2	Microbiology
Gram Stain	2	Microbiology
Sterilization	2	Microbiology
Hand Hygiene	2	Microbiology
Culture Media (1)	2	Microbiology
Culture Media (2)	2.5	Microbiology
Culture Characters	2.4	Microbiology
Biochemical Reactions	2	Microbiology
Gram Positive Cocci (1)	2	Microbiology
Gram Positive Cocci (2)	2	Microbiology
Gram Negative Cocci(1)	2	Microbiology
Gram Negative Cocci(2)	2	Microbiology
Gram Positive Bacilli	2	Microbiology
Gram Negative Bacilli	2	Microbiology
Vibrio	2	Microbiology
T.B	2	Microbiology
Mycology	2	Microbiology
Revision 1	2	Microbiology
Revision 2	2	Microbiology
Vectors	1.6	Parasitology
Snails And Differentiation Classes Of Helminthes	2	Parasitology
Total	40.5 hr.	

IV- Teaching and learning Methods:

4. Theoretical Teaching:

- e) Interactive lectures: using

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

f) Case Based learning

5. Practical Teaching: conducted using:

- Practical sessions

6. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment methods:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester
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D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	45	40%
Final Practical exam.	33.75	30%
Activities	33.75	30%
Total	112.5	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
- Essential Books:

Microbiology:

- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.
- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- 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, 8th Edition. By: C. K. Jayaram Paniker. JP Medical Ltd, 2017
- 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.5	4.5.1 to 4.5.33	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.7			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:

Name: Prof. Dr. Zeinab Kasemy

Vertical Integration Module (1)

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title: Vertical Integration Module (1)

Department offering the Module: Family Medicine

Program on which the Module is given: Menoufia M.B.B.ChCredit- hour Program (5+2)

Academic year: First year

Semester: I

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 1/2 credit hours (Longitudinal).

Teaching hours: 7.5 hours / Lectures

B- Professional Information

I- Aim of the Module:

This module aims to provide the students with an early clinical exposure o to commonhealth problems, applying a holistic approach in clinical management with emphasison disease prevention, health promotion and health education.

II- Learning Outcomes of the Module (LOs)

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

Key competency	Module LOs
1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	<p>1.8.1. Illustrate the approach of studying clinical cases in the form of diarrhea and skin infection, identifying the significant data and interpret these data.</p> <p>1.8.2. Identify new medical terms in the context of case study activities.</p> <p>1.8.3. Illustrate the main ethical principles in dealing with patientsand colleagues.</p>

1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	1.10.1 Interpret the clinical and laboratory data in the clinical scenarios to formulate a differential diagnosis.
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Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.3.1 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
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 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 Demonstrate Respect the roles of other colleagues in patient care.
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. Work in a team evaluating his own and others workthrough constructive feedback. 5.2.2. Communicate respectfully and effectively with other colleagues

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 either 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:

Topic	Teaching Hours
Approach to problem solving applied to case of diarrhea	0.5
Student presentation for the case (diarrhea) according to physiology	0.5
Identification and describe healthcare facilities in Egypt	1
Student visit to nearby health facilities using predesigned checklist	1
Approach to a case of diarrhea from parasitology view	0.5
Student presentation according to parasitology	0.5
Approach to a case of diarrhea from microbiology view	0.5
Student participation according to microbiology	0.5
Case presentation of skin infection	0.5
Approach to case of skin infection according to pathology	1
Revision	1
Total	7.5

IV- Teaching and learning methods

- Lectures for acquisition of knowledge: Two large groups, each group once /week
- Power Point Presentations: at lectures.
- Role Play, case studies, and problem solving.

V- Student Assessment :

A- Assessment methods

- Formative assessment: Through predesigned checklist and assignment, and student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problem solving.

B- Assessment schedule

Final-term assessment at the end of the semester by written examination.

C- Weighting of assessments:

Final-term examination: 100 % (12.5 marks)



VI- List of references and

Resources

- Lecture notes
- Essential Books:
 - Case Files Family Medicine, Fourth Edition. By: Eugene Toy, Donald Briscoe, Bruce Britton, Joel John Heidelbaugh. McGraw Hill / Medical, 2016.

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.

Module Coordinator: Name: Dr. Asmaa Abu Bakr	Program Coordinator: Name: Prof. Dr. Zeinab Kasemy
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مدخل إلى الجودة

الجامعة: المنوفية الكلية: الطب

أ – معلومات أساسية :

اسم المقرر : مدخل إلى الجودة

كود المقرر: MU-IQ

القسم الذى يقدم المقرر: مركز ضمان الجودة بالجامعة

البرنامج الذى يدرس به المقرر: برنامج بكالوريوس الطب والجراحة

الفرقة : الأولى

منسق المقرر : اد / عادل مبارك

تاريخ إقرار التوصيف: 2010/5

تاريخ مراجعة التوصيف: 2019/2

عدد الساعات الدراسية: 15 ساعة نظرية.

ب – معلومات متخصصة :

هدف المقرر:

- إلمام الطالب بأهمية جودة التعليم في تحقيق تنمية القوى البشرية وضمان الأمن القومي وتعريفه بالأصول التاريخية للجودة في التعليم العالي و توضيح آليات تحقيق ضمان جودة التعليم والإعتماد و دور القيادات الأكاديمية والطلاب في تحقيق ذلك

المقرر ساعة نظري كل أسبوع

المستهدف من تدريس المقرر

أ- المعلومات و المفاهيم:

- (1) يوضح المفاهيم والمصطلحات الصادرة عن الهيئة القومية لضمان جودة التعليم
- (2) يبين الأصول التاريخية للجودة في التعليم الجامعي
- (3) يميز عناصر جودة التعليم
- (4) يلخص خطوات تطور الجودة والإعتماد بجمهورية مصر العربية
- (5) يناقش دور الهيئة القومية لضمان جودة التعليم
- (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 الاعتماد
- (2) يستنتج دور الطالب في تحقيق معايير الاعتماد
- (3) يقارن بين دور مركز الجودة بالجامعة و دور وحدة ضمان الجودة بمؤسسة تعليمية
- (4) يصمم خطة لاعتماد مؤسسة تعليمية
- (5) يقيم ممارسات مؤسسة تعليمية لتحقيق معايير الاعتماد

ج- المهارات المهنية:

- (1) يمارس توعية لأقرانه بالجامعة بجودة التعليم وفكر الجودة
- (2) يكتب رؤية ورسالة لكلية
- (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.

المحتوى

- (1) بعض المفاهيم الأساسية والمصطلحات الصادرة عن الهيئة القومية لضمان جودة التعليم والاعتماد لاستخدامها في المراحل المختلفة لعملية التقويم والاعتماد
- (2) لتطور التاريخي لضمان الجودة في التعليم
- (3) مفهوم ومبادئ ضمان جودة التعليم والاعتماد
- (4) تطور الجودة والاعتماد بجمهورية مصر العربية
- (5) الهيئة القومية لضمان جودة التعليم والاعتماد
- (6) اجراءات الاعتماد
- (7) معايير الاعتماد لمؤسسات التعليم العالي بجمهورية مصر العربية
- (8) دور كل من الطالب وعضو هيئة التدريس والقيادات في تحقيق جودة التعليم

طرق التدريس : محاضرات نظرية من قبل:

- (1) مركز ضمان الجودة بالجامعة*
- (2) وحدة ضمان الجودة بالكلية

طرق التقويم

- (1) أعمال سنة بنسبة 25% من الدرجات
- (2) امتحان تحريري في نهاية العام يمثل 75% من الدرجات
- (3) المقرر من 20 درجة

مصادر التعلم:

- كتاب مدخل إلى جودة التعليم والاعتماد

Module Coordinator:

Name: Prof. Dr. Wafaa Zahran

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Semester II

Musculoskeletal (I)

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title : Musculoskeletal (I)

Code No: MSI 1201

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

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

Academic year: 1st Year

Semester: II

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 5 credit hours/6 weeks.

	Teaching hours		
	Lectures	Practical	Activities
Anatomy	15	22.5	45
Histology	7.5	11.25	22.5
Biochemistry	4.5	6.75	13.5
Physiology	3	4.5	9
Total	30	45	90

B- Professional Information

I- Aim of the Module:

To provide the students with knowledge and skills regarding embryological development, histological structure, biochemical composition and physiological functions of musculoskeletal system and factors affecting, with clinical correlation whenever possible. The module focuses on anatomical structure of the upper limb, abdominal, and thoracic walls and diaphragm.

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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

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

- 4.1.9. Describe anatomy of muscles in upper limb, anterior thoracic wall, anterior abdominal wall and posterior abdominal wall.
- 4.1.10. Identify the role of different muscles (of upper limb, thorax and abdomen) in movement.
- 4.1.11. Describe anatomy of joint in upper limb, thorax and abdomen.
- 4.1.12. Identify the component of peripheral nervous system.
- 4.1.13. Identify the course, important relations, and distribution of each peripheral nerve in the upper limb.
- 4.1.14. Describe the potential difference between both sides of the skeletal muscle membrane and the determinant of it.
- 4.1.15. Identify phases and mechanism of action potential
- 4.1.16. Describe the mechanisms of skeletal and smooth muscle contraction
- 4.1.17. List factors affecting skeletal and smooth muscle contraction.
- 4.1.18. Illustrate the structure of muscles.
- 4.1.19. Illustrate structure of peripheral nerve.
- 4.1.20. Discuss the action of different muscles in upper limb, thoracic wall and abdominal walls.
- 4.1.21. Differentiate the nerve supply of different muscles.
- 4.1.22. Distinguish between an isometric and isotonic contraction.
- 4.1.23. Discriminate smooth muscle contraction from skeletal muscle contraction
- 4.1.24. Relate the nerve and vessels to the bone.

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 calcium, phosphorus and magnesium in bone mineralization.
- 4.2.3. Identify sources and fate of energy needed for muscles contraction.
- 4.2.4. Correlate 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.

4.5	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 in collagen syntheses. 4.5.2. Describe diseases related to defects in collagen syntheses, muscles and bone.
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 upper limb. 4.6.2. Solve problems through case study 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.	4.8.1. Interpret symptoms, signs and biochemical laboratory findings of some mineral and nutritional deficiency disease. 4.8.2. Apply a method to test the joint function. 4.8.3. Apply a method to test the nerve injury. 4.8.4. Draw and label the structures they have seen under light microscope showing bone tissue during practical classes. 4.8.5. Examine and identify microscopic slides of bone tissue 4.8.6. Recognize biochemical instruments used to measure blood calcium, phosphorus and magnesium. 4.8.7. Practice measurement of serum protein and creatinine. 4.8.8. Interpret the results variation of calcium, phosphorus and magnesium and its relation to different diseases 4.8.9. Identify dissected structures of the upper limb, thorax and abdomen, according to the present relations. 4.8.10. Distinguish consistency of arteries, veins & nerves. 4.8.11. Draw diagrams showing courses and distribution of nerves and main blood vessels in upper limb.

- 4.8.12. Draw and label the structures they have seen under light microscope showing muscular and nervous tissue during practical classes.
- 4.8.13. Examine and identify microscopic slides of muscular and nervous tissue
- 4.8.14. Differentiate between types of different musculoskeletal tissues and organs in histological slides.
- 4.8.15. Sketch simple muscle twitch and explain the cause of each phase.

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.	<p>2.5.1 Demonstrate respect towards colleagues.</p> <p>2.5.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>



III. Module Contents:

Theoretical		
Topic	Teaching Hours	Department
Development and anomalies of the limbs	1	Anatomy
Axilla – introduction to upper limb innervation	1	Anatomy
Muscles of the pectoral region and back	1	Anatomy
Muscle of the scapular region	1	Anatomy
Muscles of the arm- cubital fossa	1	Anatomy
Muscles of the anterior compartment of the forearm	1	Anatomy
Muscles of the posterior compartment of the forearm	1	Anatomy
Anatomy of the hand	1	Anatomy
Nerves of the upper limb 1 (median- ulnar)	1	Anatomy
Nerves of the upper limb (2)+ main arteries	1	Anatomy
Joints of the upper limb 1 (shoulder girdle- shoulder joint)	1	Anatomy
Joints of the upper limb 2 (elbow- radioulnar- wrist- distal joints)	1	Anatomy
Thoracic wall	1	Anatomy
Anterior abdominal wall	1	Anatomy
Posterior abdominal wall- Diaphragm	1	Anatomy
Bone mineralization 1	1.5	Biochemistry
Bone mineralization 2	1.5	Biochemistry
Extracellular matrix	1.5	Biochemistry
Cells & types of cartilage	1.5	Histology
Types of bone and Bone cells	1.5	Histology
Ossification	1.5	Histology
Skeletal Muscle& Smooth Muscle	1.5	Histology
Neurons, Nerve fibers	1.5	Histology
Membrane & Action potential	1	Physiology
Neuromuscular transmission	1	Physiology
Excitation contraction coupling	1	Physiology
Total (hr.)	30 hr.	
Practical		
Topic	Teaching Hours)	Department
Bone of upper limb (Clavicle, scapula and humerus) + radiology	2	Anatomy
Bone of upper limb (Radius, ulna and bone of hand)+ radiology	2	Anatomy
Muscles of pectoral region + brachial plexus	2	Anatomy
Practical cartilage	2.25	Histology



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Practical bone	2.25	Histology
Muscles of back and scapular region	2	Anatomy
Muscles of the arm+ cubital fossa	2	Anatomy
Muscles of the front of forearm	2	Anatomy
Practical bone 2	1.5	Histology
Practical muscle	2	Histology
Simple muscle twitch	1.5	Physiology
Main lab. Instrumentation; centrifuge and colormetry	0.5	Biochemistry
Muscles of the back of forearm	2	Anatomy
Thoracic cage	2	Anatomy
Muscles of the anterior abdominal wall	1.5	Anatomy
Practical nervous	2.75	Histology
Factors affecting skeletal muscle contraction	1.5	Physiology
Measurement of blood Creatinine	2	Biochemistry
Muscles of the posterior abdominal wall	1.5	Anatomy
Revision: Special features of the bones of upper limb and data show soft	1.5	Anatomy
Final Revision	1.5	Anatomy
Revision	0.5	Histology
Effect of changing frequency of stimulation on muscle contraction	1.5	Physiology
Measurement of serum protein	2	Biochemistry
Revision	0.5	Anatomy
Results interpretation	2.25	Biochemistry
Total (hr.)	45 hr.	

IV– Teaching and learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

2. Practical Teaching: conducted using:

- Practical sessions

3. Self-directed Learning

V- Student Assessment:

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

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes 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
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give a reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	50	40%
Final Practical exam.	37.5	30%
Activities	37.5	30%
Total	125	100%

E- Grading for by GPA System:

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

VI- List of references and Resources

- Lecture Notes of Module Departments
- Essential Books:

Anatomy:

- Gray's Anatomy for Students. 3rd Edition. By: **Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell**. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.

Histology:

- Junqueira's Basic Histology: Text and Atlas, 15th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2018.
- Wheater's Functional Histology, 6th Edition. By: Barbara Young, Geraldine O'Dowd, Phillip Woodford. Churchill Livingstone, 2014.
- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.

Biochemistry:

- Harper's Illustrated Biochemistry 31st Edition. By: Victor W. Rodwell, David Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil. McGraw Hill / Medical, 2018.
- Lippincott's Illustrated Reviews Biochemistry, 7TH Edition. By: Denise Ferrier. LWW, 2017.
- Textbook of Biochemistry with Clinical Correlations 7th Edition. By: Thomas M. Devlin. John Wiley & Sons, 2010.

VII- Facilities required for teaching and learning:



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1. Faculty Lecture halls
2. Equipped labs with microscopes, slides, materials.
- 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

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.24	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, 4.5.2	x	x		x	x		x		x	x	x
4.6	4.6.1, 4.6.2	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.15			x			x		x	x		x
5.2	5.2.1, 5.2.2	x	x	x						x		x
6.2	6.2.1, 6.2.2				x	x	x	x	x	x	x	x
6.3	6.3.1				x	x	x	x	x	x	x	x
6.6	6.6.1, 6.6.2				x	x	x	x	x	x	x	x

Module Coordinator:

Name: Dr. Sara Gamal Abdelkawy

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Musculoskeletal (II)

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title : Musculoskeletal (II)

Code No: MSI 1202

Department offering the Module : Anatomy, pathology, pharmacology, parasitology and microbiology departments

Program on which the Module is given: Menoufia M.B.B. ChCredit- hour Program (5+2)

Academic year: 1st Year

Semester: II

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by Faculty Council: 2018

Total hours: 4 credit hours / 4 weeks

	Teaching hours		
	Lectures	Practical	Activities
<i>Anatomy</i>	15	22.5	45
<i>Pathology</i>	3	4.5	9
<i>Pharmacology</i>	3	4.5	9
<i>Microbiology</i>	1.5	2.25	4.5
<i>Parasitology</i>	1.5	2.25	4.5
<i>Total</i>	24	36	72

A - Professional Information

I- Aim of module:

To provide the students with basic knowledge of the normal structure of the human body at the level of the lower limb, vertebral column, head and neck, common inflammatory and neoplastic lesions that affecting musculoskeletal system, the pharmacological basis of using drugs used in treatment of gout, rheumatoid arthritis and osteoporosis, and various aspects of parasites and microorganisms causing musculoskeletal infections.

II- Learning Outcomes of the Module



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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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Describe anatomy of muscles and inter-muscular spaces of the lower limb, vertebral column, head and neck.</p> <p>4.1.2. Describe anatomy of different joints in the lower limb, vertebral column.</p> <p>4.1.3. Identify the course, important relations, distribution and effect of injury of lumbar, sacral plexuses and each peripheral nerve in the lower limb, head, neck and effects of their injury.</p> <p>4.1.4. Determine the normal development of vertebral column and its congenital anomalies.</p> <p>4.1.5. Describe anatomy and layers of scalp</p>
4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1 Recognize the deformity associated with disc prolapse, joints dislocation, and different bone fractures and factors affecting, stages and complications of bone healing.</p> <p>4.5.2 Recognize the features (demographic, radiologic and pathological) of most common benign, locally malignant and malignant bone tumours.</p> <p>4.5.3 Recognize general basis of osteopenic diseases including rickets, osteomalacia and osteoporosis.</p> <p>4.5.4 Identify the pathogenesis of most common inflammatory diseases affecting musculoskeletal system (Bone, muscles and joints).</p> <p>4.5.5 Recognize the morphological forms and stages of the parasites affecting muscles and their</p>

		pathogenesis. (Cysticercus cellulose, Trichinella spiralis larvae & Sarcocystis cyst).
	4.5.6	Determine the most important microorganisms and outline the diagnosis of the different microorganisms causing musculoskeletal infections.
	4.5.7	Determine the pathogenesis and pathological features of osteomyelitis
	4.5.8	Determine the pathogenesis and pathological features of arthritis
4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. Interpret the anatomical knowledge with clinical signs seen in cases of peripheral nerves injury.</p> <p>4.6.2. Correlate the knowledge in embryology with clinical findings caused by errors in development</p> <p>4.6.3. Apply the multidisciplinary team (MDT) approach of diagnosis of bone diseases and neoplasms.</p> <p>4.6.4. Apply MDT approach of diagnosis of osteopenic diseases.</p> <p>4.6.5. Interpret MDT approach of diagnosis of joint diseases.</p> <p>4.6.6. Identify approach of malunion of bone fracture.</p> <p>4.6.7. Integrate basic information about life cycles, clinical picture and complications to point out the provisional diagnosis of musculoskeletal disorders.</p> <p>4.6.8. Diagnose and give differential diagnosis for each parasitic disease affecting musculoskeletal.</p> <p>4.6.9. Formulate a systematic approach for laboratory diagnosis of musculoskeletal infections.</p> <p>4.6.10. Interpret reports of different samples indicating musculoskeletal infections.</p>



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- 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 skeletal muscle relaxants, their mechanisms of action and adverse effects.
 - 4.7.2. Discuss reversal of non-depolarizing neuromuscular blockers.
 - 4.7.3. List centrally acting spasmolytic drugs.
 - 4.7.4. Identify drugs used for management of myasthenia gravis.
 - 4.7.5. Classify NSAIDs; describe their mechanism of action and the possible drug interactions.
 - 4.7.6. Classify anti-rheumatic drugs with reference to their mechanism of action.
 - 4.7.7. Recognize different aspects related to anti-gout drugs.
 - 4.7.8. Judge the dose of different drugs used in musculoskeletal disorders simultaneously administered and to avoid any combination that could result in serious reactions.
 - 4.7.9. Design a course of therapy that cost effective.
 - 4.7.10. Prescribe a prescription on a rational base for rheumatoid arthritis, gout and myasthenia gravis considering patient age, weight and health status.
 - 4.7.11. Identify the problem of non-medical use of drugs used in musculoskeletal diseases and chemicals (drug abuse) and know how to avoid and manage the users.
 - 4.7.12. Demonstrate the response of isolated and intact preparations (of animals) to some selected drugs.
 - 4.7.13. Discuss management of parasitic diseases affecting muscle (*Cysticercosis*, *Trichinellosis* & *Sarcocystosis*).



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- 4.8** Demonstrate basic sciences specific practical skills and procedures relevant to future practice, recognizing their scientific basis, and interpret common diagnostic modalities, including: imaging, electrocardiograms, laboratory assays, pathologic studies, and functional assessment tests.
- 4.8.1. Describe the most important methods of taking the musculoskeletal specimens.
 - 4.8.2. Describe the most important methods of specimen handling and principles of infection control.
 - 4.8.3. Label dissected structures of the lower limb, vertebral column, head and neck, according to the present relations.
 - 4.8.4. Differentiate between the consistency of arteries, veins & nerves.
 - 4.8.5. Draw diagrams showing courses and distribution of nerves and main blood vessels in lower limb, head and neck.
 - 4.8.6. Examine of the different joints of lower limb, vertebral column and neck.
 - 4.8.7. Interpret x- rays to recognize the anatomical landmarks, common fractures and joints dislocation.
 - 4.8.8. Comment on the radiology related to most common bone neoplasm.
 - 4.8.9. Interpret the gross and microscopic features of most common bone neoplasm
 - 4.8.10. Judge some parasites and their stages through examination of microscopic slides.
 - 4.8.11. Draw parasites in their different stages specially the diagnostic and infective stages and label the given diagrams regarding these parasites.
 - 4.8.12. Identify some clinical presentations of parasitic diseases of muscles through data show slides.
 - 4.8.13. Identify different pathogens in musculoskeletal specimen by standard microbiological methods.



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Competency Area 5: The graduate the health care system.

as a member of the health team and part of

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		
TOPIC	TEACHING HOURS	DEPARTMENT
Anatomy of thigh	2	Anatomy
Anatomy of leg	2	Anatomy



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Healing of bone, metabolic (rickets- osteomalacia and osteoporosis)	1	Pathology
NSAID	1	Pharmacology
Trichinella spiralis - Cysticercosis , Sarcocystis	1.5	Parasitology
Joints of lower limb	2.25	Anatomy
Peripheral nerve injury	2	Anatomy
Osteomyelitis	1	Pathology
Gout	2	Pharmacology
Osteomyelitis Septic arthritis, Gas gangrene and Skin infection	1.5	Microbiology
Anatomy of vertebral column	2.25	Anatomy
Scalp & face	2.25	Anatomy
Neck triangles - Muscles of mastication and TMG	2.25	Anatomy
Benign, malignant and locally malignant tumour	1	Pathology
Skeletal muscle relaxants	1	Pharmacology
Pharmacotherapy of myasthenia gravis		
Total Hours	7.5 hr.	
PRACTICAL		
TOPIC	TEACHING HOURS	DEPARTMENT
Bone of lower limb (1)	1.5	Anatomy
Bone of lower limb (2)	1.5	Anatomy
Front, medial compartment of thigh	1.5	Anatomy
femoral triangle.	1.5	Anatomy
Gluteal region and back of the thigh	1.5	Anatomy
Anterior and lateral compartment of leg	1.5	Anatomy
Popliteal fossa and posterior compartment of leg	1.5	Anatomy
Joints (Models)	1.5	Anatomy
Radiology.	1.5	Anatomy
Skull 1	1.5	Anatomy
Skull 2	1.5	Anatomy
Head and neck specimens 1	1.5	Anatomy



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Head and neck specimens 2	1.5	Anatomy
Revision (1)	1.5	Anatomy
Revision (2)	1.5	Anatomy
Bacterial cause of osteomyelitis	1	Microbiology
Bacterial causes of arthritis, muscle and skin infection.	1.25	Microbiology
Trichinella spiralis	1	Parasitology
Cysticercosis	1.25	Parasitology
Osteomyelitis, metabolic disorders, gout and rheumatoid arthritis.	1.5	Pathology
Benign tumour and locally malignant tumour	1.5	Pathology
Malignant tumour	1.5	Pathology
Gout cases	1.5	Pharmacology
Effect of drugs on isolated frog rectus	1.5	Pharmacology
Revision	1.5	Pharmacology
Total	9.5 hr.	

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 to reach that percentage will be prevented from attending the final examination.



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B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes 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
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	40	40%
Final Practical exam.	30	30%
Activities	30	30%
Total	100	100%



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E- Grading for by GPA System:

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

VI. List of references and resources:

- **Lecture Notes of Module Departments**
- **Essential Books:**

Anatomy:

- Gray's Anatomy for Students. 3rd Edition. By: **Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell**. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Pathology:

- Robbins Basic Pathology (Robbins Pathology) 10th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2017.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 4th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2013

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.
- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013.

Microbiology:

- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.



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- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- 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, 8th Edition. By: C. K. Jayaram Paniker. JP Medical Ltd, 2017
- 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.



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Key Competencies & Module LOs

vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.5	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 4.6.10	x	x		x	x		x		x	x	x
4.7	4.7.1 to 4.7.13	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.13			x			x		x	x		x
5.2	5.2.1, 5.2.2	x	x	x						x		x
6.2	6.2.1, 6.2.2				x	x	x	x	x	x	x	x
6.3	6.3.1				x	x	x	x	x	x	x	x
6.6	6.6.1, 6.6.2				x	x	x	x	x	x	x	x

Module Coordinator:

Name: Dr. Sara Gamal Abdelkawy

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Blood and lymphatics

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Blood and lymphatics

Code No: BL/LYM 1203

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

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

Academic year/level: First level

Semester: Semester II

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 7 credit hours/6 weeks

Teaching Hours			
	Lectures	Practical	Activities
Anatomy	3.9	5.85	11.7
Histology	3	4.5	9
Biochemistry	4.5	6.75	13.5
Physiology	9	13.5	27
Pathology	3	4.5	9
Pharmacology	6	9	18
Microbiology	6	9	18
Parasitology	6.6	9.9	19.8
Total	42	63	126

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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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Describe surfaces and relation of spleen, tonsils and lymph nodes groups in head and neck, inguinal and axillary region.</p> <p>4.1.2. Describe cisterna chyli, thoracic duct and right lymphatic duct</p> <p>4.1.3. Distinguish histological structural features of lymphatic organs and cell types present in each organ and relate the structure to organs' function.</p> <p>4.1.4. Compare between different blood elements and their development.</p> <p>4.1.5. Discuss the function of the blood and plasma protein.</p> <p>4.1.6. Discuss the principles of blood coagulation.</p> <p>4.1.7. Recognize the function of RBCs and different types of anemia.</p>

		<p>4.1.8. Identify components of immune system, different types of antigens and different mechanisms of antigen antibody reaction.</p> <p>4.1.9. Explain the difference between innate and acquired immunity.</p> <p>4.1.10. Integrate basic anatomical, biochemical, histopathological and physiological aspects of blood and lymphatic system with clinical data</p> <p>4.1.11. Analyze the anatomical facts while examining the living subject in order to reach a proper diagnosis.</p> <p>4.1.12. Relate the composition of each organ histological structure to its specific functions.</p> <p>4.1.13. Evaluate the activities and properties of living cells based on the observation of fixed specimens.</p>
4.2	Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	<p>4.2.1. Identify different biochemical bases of hemolysis.</p> <p>4.2.2. Identify components of immune system, different types of antigens and different mechanisms of antigen antibody reaction.</p> <p>4.2.3. Describe the metabolism of hemoglobin.</p> <p>4.2.4. Identify the types, functions white blood cells.</p> <p>4.2.5. Interpret the light microscopic appearance of normal cells, tissues and organs.</p>
4.5	Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1. Discuss disorders of blood coagulation and predict the hazards of incompatible blood transfusion.</p> <p>4.5.2. Describe causes, complications and diagnosis of septicemia and bacteremia.</p> <p>4.5.3. Define immune-prophylaxis and different types of vaccines.</p> <p>4.5.4. Identify the basics of different types of tissue damage, autoimmune diseases and immunological aspects of tumors.</p> <p>4.5.5. Describe the life cycles and pathogenesis of schistosomiasis, lymphatic filariasis, Leishmaniasis and Malaria.</p> <p>4.5.6. Predict the intracellular or tissue components likely to be involved in a functional deficit.</p>

4.5.7. 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.

- | | |
|--|--|
| <p>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.</p> | <p>4.7.1. Identify the three major groups (antiplatelet, anticoagulants and fibrinolytics) involved in management of thrombotic diseases.</p> <p>4.7.2. List drugs used in excessive bleeding.</p> <p>4.7.3. Select the appropriate anti-anemic, anticoagulant, coagulant, Antiplatelet, Fibrinolytics and antifibrinolytics drugs for suitable patient.</p> <p>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.</p> |
| <p>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.</p> | <p>4.8.1. Interpret complete blood picture.</p> <p>4.8.2. Interpret immunological and molecular laboratory test reports</p> <p>4.8.3. Identify the normal structure of any given histological slide.</p> <p>4.8.4. Categorize and compose a pathology report.</p> <p>4.8.5. Draw diagrams showing different lymph node groups.</p> <p>4.8.6. Identify radiologically the spleen, different tonsils and lymph nodes.</p> <p>4.8.7. Differentiate between types of tissues and organs in histological slides.</p> <p>4.8.8. Draw and label the structures they have seen under light microscope during practical classes.</p> <p>4.8.9. Identify different types of blood samples</p> <p>4.8.10. Identify different types of instruments used in different biochemical assays</p> <p>4.8.11. Examine and identify gross and microscopic findings of blood, spleen and lymphatics diseases</p> <p>4.8.12. Identify the light microscopic appearance of RS cells, in Hodgkin's lymphoma.</p> <p>4.8.13. Diagram steps of platelet aggregation and show site of their action of different antiplatelet drugs.</p> |



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- 4.8.14. Employ experiments that test the response of isolated and intact preparations (of animals) to some selected drugs .
- 4.8.15. Prescribe a prescription on a rational base for selected important diseases considering patient age, weight and health status.
- 4.8.16. Draw parasites in their different stages specially the diagnostic and infective stages through examination of microscopic slides.
- 4.8.17. Identify some parasites or their stages by naked eyes.
- 4.8.18. Identify different antigen antibody reaction laboratory test from case sanario and practical serological tests.



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Competency Area 5: The graduate the health care system.

as a member of the health team and part of

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
Thymus and tonsils	2	Anatomy
Lymphatic duct	1.9	Anatomy
Heme synthesis and related diseases	2	Biochemistry
Heme catabolism and related disorders	2.5	Biochemistry
Blood and its components	2	Histology
Lymphatic system	1	Histology
Cells of immune response	1	Microbiology
Hypersensitivity-tumor	2	Microbiology



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Fever of unknown Origin	3	Microbiology
complement system		
Lymphatic filariasis - Leishmaniasis	1.6	Parasitology
Schistosomiasis	3	Parasitology
Leishmaniasis	2	Parasitology
Embolism	1.5	Pathology
Bacterial spread in blood	1.5	Pathology
Drug therapy of anemia	2	Pharmacology
Antiplatelets	2	Pharmacology
Antifibrinolytics	2	Pharmacology
General functions of the blood & function of plasma proteins	1.5	Physiology
Functions of leucocytes	1.5	Physiology
Blood coagulation	3	Physiology
Blood transfusion-anticoagulants	3	Physiology
Total	42	
Practical		
Practical Sessions	Teaching Hours	Department
Spleen	1.85	Anatomy
Lymph nodes	2	Anatomy
Lymphatics	2	Anatomy
Heme synthesis and related diseases	2.25	Biochemistry
Blood sampling	2.25	Biochemistry
Instruments	2.25	Biochemistry
Blood	2	Histology
Lymphatic system	2.5	Histology
Immune-reactions	3	Microbiology
ELISA-Flow cytometry	3	Microbiology
Immunoprophylaxis	3	Microbiology
Schistosomiasis	3	Parasitology
Malaria	1.5	Parasitology
Babesia-blood film	3	Parasitology
Blood film	2.4	Parasitology
Non neoplastic lymph node diseases	1.5	Pathology
Lymphatic tumors	3	Pathology
Coagulant and Anticoagulant	3	pharmacology
Fibrinolytics	3	pharmacology
Drugs for blood disorders	3	Pharmacology
Anemia and polycythemia	4.5	Physiology
Hemostasis	4.5	Physiology
Thrombocytopenia-purpura	4.5	Physiology
Total	63	

IV- Teaching and learning Methods:

- Theoretical Teaching:**
 - Interactive lectures: using**

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

b) Case Based learning

2. Practical Teaching: conducted using:

- Practical sessions

3. Self-directed Learning

V- Student Assessment:

A. Attendance Criteria:

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

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes multiple-choice questions, problem-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
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	70	40%
Final Practical exam.	52.5	30%
Activities	52.5	30%
Total	175	100%

E- Grading for by GPA System:

The Percentage	Symbols	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. 3rd Edition. By: **Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell**. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.

Histology:

- Junqueira's Basic Histology: Text and Atlas, 15th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2018.
- Wheater's Functional Histology, 6th Edition. By: Barbara Young, Geraldine O'Dowd, Phillip Woodford. Churchill Livingstone, 2014.



- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.

Biochemistry:

- Harper's Illustrated Biochemistry 31st Edition. By: Victor W. Rodwell, David Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil. McGraw Hill / Medical, 2018.
- Lippincott's Illustrated Reviews Biochemistry, 7TH Edition. By: Denise Ferrier. LWW, 2017.
- Textbook of Biochemistry with Clinical Correlations 7th Edition. By: Thomas M. Devlin. John Wiley & Sons, 2010.

Pathology:

- Robbins Basic Pathology (Robbins Pathology) 10th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2017.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 4th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2013

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.
- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013.

Microbiology:

- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.
- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- 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, 8th Edition. By: C. K. Jayaram Paniker. JP Medical Ltd, 2017
- 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.



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- 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	X	x						x		x
4.1	4.1.1 to 4.1.13	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 4.5.7	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 4.8.18			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. Asmaa Shaiban

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Medical Professionalism and Communication Skills

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title : Medical professionalism and communication skills

Code : PC1204

Department offering the Module: Family medicine department

Program on which the Module is given: Menoufia M.B.B. ChCredit- hour Program (5+2)

Academic year: First year

Semester: Ii

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 1 credit hour

Teaching Hours : 15 hours/ Lectures

B- Professional Information

I- Aim of Module:

This module aims to provide the students with good communication and presentation skills with adherence to the rules of professionalism while dealing with the patients.

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.	1.1.1. Describe professionalism
		1.1.2. Enumerate the proper professional and academic behaviors in every facet of the practice. • Define the fundamentals of establishing suitable professional and academic connections.
3.3	Respect the different cultural beliefs and values in the community they serve.	1.1.3. Exhibits a courteous and competent image of themselves.
		1.1.4. Exhibit honesty, integrity, dedication, compassion, and respect when interacting with a patient,
3.7	Recognize and manage conflicts of interest.	1.1.5. Complete clinical, administrative, and curriculum activities on time
		1.1.6. Demonstrate proper professional interactions with staff, families, and patients.
3.8	Refer patients to the appropriate health facility at the appropriate stage.	1.3.1. Recognize the importance of cultural diversity.
		1.3.2. Demonstrate consideration for the variety of the community as it is shown in the case vignettes.
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.	1.3.3. Act in a way that shows constructive regard for the many cultural values and beliefs of the community.
		1.7.1 Explain the constituents of a conflict of interest and methods to manage one.
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.	1.7.2 Disclose a conflict of interest when it arises
		1.8.1. Determine the Egyptian healthcare system's hierarchy.
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.	1.8.2. Enumerate the conditions under which a patient may be referred.
		1.8.3. Provide the patients with all available medical care up until the point of referral.
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.	1.9.1. Explain immoral actions that could jeopardise patient safety.
		1.9.2. Defines the proper channels for reporting dishonest or immoral behaviour.
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.	1.9.3. Report inappropriate, unethical, or unprofessional behaviour in role-played or presented films.

1.9.4. Demonstrates self-awareness, relationship management, social awareness, and self-management.

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

Key competency	Module LOs
5.1 Recognize the important role played by other health care professionals in patients' management.	<p>5.2.3. Describe the function of the health care team in managing patients.</p> <p>5.2.4. Define the health care team.</p> <p>5.2.5. Practice working as a team in role plays tailored to various clinical scenarios.</p> <p>5.2.6. Work together with other members of the healthcare team; •</p> <p>5.2.7. Demonstrate respect to other healthcare professionals.</p>
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.	<p>5.2.1. Specify the roles that the health care team shares and overlaps in order to manage patients effectively.</p> <p>5.2.2. Define each member of the health care team's role in the decision-making process.</p> <p>5.2.3. Work on making decisions collaboratively in simulated scenarios involving various clinical presentations.</p> <p>5.2.4. Work together with other members of the healthcare team.</p> <p>5.2.5. Treat every member of the medical team with dignity.</p> <p>5.2.6. Observe other colleagues' professionalism.</p>
5.3 Implement strategies to promote Explaining, manage differences, and resolve conflicts in a manner that supports collaborative work.	<p>5.3.1. Define various reasons why conflicts arise in health team work;</p> <p>5.3.2. List various approaches to managing conflicts in the delivery of healthcare;</p> <p>5.3.3. Engage in role-playing exercises to practise conflict resolution;</p> <p>5.3.4. Effectively communicate with coworkers to resolve disputes and get past disagreements.</p>
5.4	5.4.1. Recognize various leadership philosophies



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	<p>Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.</p>	<p>5.4.2. Describe various approaches to address the various challenges faced by leadership.</p> <p>5.4.3. Identify the characteristics of a successful leader.</p> <p>5.4.4. Practice leadership techniques in simulated scenarios for various clinical situations.</p> <p>5.4.5. Treat junior employees and other members of the healthcare team with deference and gratitude.</p> <p>5.4.6. Implement procedures for ongoing workplace enhancement.</p>
<p>5.5 Communicate effectively using written health records, electronic medical records, or other digital technology.</p>	<p>5.5.1. Enumerate the parts of a medical record.</p> <p>5.5.2. List the various forms of health records and discuss their advantages and disadvantages.</p> <p>5.5.3. Enumerate the benefits of digital technology for health information.</p> <p>5.5.4. Apply written health record writing skills</p> <p>5.5.5. Use the electronic data recording system effectively.</p> <p>5.5.6. Demonstrate truthfulness and precision when logging and displaying medical information.</p> <p>5.5.7. Value utilizing medical records when speaking with patients</p>	
<p>5.6 Evaluate his / her work and that of others using constructive feedback.</p>	<p>5.6.1. Describe constructive criticism.</p> <p>5.6.2. Describe the importance of constructive criticism.</p> <p>5.6.3. Work on providing constructive criticism in role-playing exercises.</p> <p>5.6.4. Express gratitude for the feedback in a productive and professional manner.</p>	
<p>5.7 Recognize own personal and professional limits, and seek help from colleagues and supervisors when necessary.</p>	<p>5.7.1. Recognize when, during a patient encounter, to seek professional and personal assistance.</p> <p>5.7.2. Describe the various restrictions that may arise during patient encounters and how to handle them.</p> <p>5.7.3. Draw attention to various constraints in a particular role-play</p> <p>5.7.4. Determine whether counselling is necessary in the given situation.</p> <p>5.7.5. Provide patient-centered care even in the face of individual limitations.</p> <p>5.7.6. Act with empathy, decency, and compassion every time.</p>	
<p>5.10</p>		



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	Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.	<p>5.10.1 List the laws governing the documentation of clinical data.</p> <p>5.10.2 Specify the clinician's legal obligations regarding clinical documentation.</p> <p>5.10.3 Recognize various clinical documentation formats.</p> <p>5.10.4 Demonstrate truthfulness and precision when handling clinical data.</p>
5.11	Improve the health service provision by applying a process of continuous quality improvement.	<p>5.11.1. Define the quality standards in a clinical setting.</p> <p>5.11.2. Create a plan for quality enhancement in a clinical setting.</p> <p>5.11.3. Demonstrate a dedication to the ongoing improvement of quality in the clinical setting.</p>
5.12	Demonstrate accountability to patients, society, and the profession.	<p>5.12.1 Specify the doctor's responsibilities to society, patients, and the medical community.</p> <p>5.12.2 Describe the inpatient encounter's accountability.</p> <p>5.12.3 Recognize the moments of neglect in clinical scenarios that are simulated.</p> <p>5.12.4 Demonstrate dedication to the various roles that clinicians play.</p>

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

Key Competency		Module LOs
6.1	Regularly reflect on and assess his / her performance using various performance indicators and information sources.	<p>6.1.5 List the main performance indicators</p> <p>6.1.6 Describe different information sources for performance assessment</p> <p>6.1.7 Apply the use of performance indicators in clinical situations</p> <p>6.1.8 Show integrity and accuracy while assessing his/her performance</p>
6.3	Identify opportunities and use various resources for learning.	<p>6.3.6 Define a learning opportunity</p> <p>6.3.7 List different resources for learning</p> <p>6.3.8 Select the proper learning opportunity to meet personal demands and capabilities</p> <p>6.3.9 Use various resources to enhance personal learning</p> <p>6.3.10 Demonstrate respect to proper learning opportunity</p>
6.4	Engage in inter-professional activities and collaborative	<p>6.4.4 List inter-professional activities</p> <p>6.4.5 Define collaborative learning</p>

		6.4.6 Apply teamwork and collaboration with other colleagues
6.5	Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that address them.	6.5.6 Define practical uncertainty 6.5.7 Outline causes of uncertainty in different clinical situations. 6.5.8 Use focused question generation for situations of uncertainty 6.5.9 Identify gaps in clinical and professional encounters 6.5.10 Demonstrate respect to the role of research methods in addressing knowledge gaps

III- Module Contents:

Topic	Teaching method	Teaching Hours
Introduction to Communication skills first impression dealing and respect	Lecture	1
Application	Role play	1
Rapport and Listening technique	Lecture	1
Application	Role play	1
Types of communication skills (verbal and non verbal)- hidden agenda	Lecture	1
Application	Role play	1
Negotiation and difficult patient	Lecture	1
Application	Role play	1
Breaking bad news	Lecture	1
Application	Role play	1
Presentation principles	Lecture	1
Application	Role play	1
Presentation skills	Lecture	1
Application	Role play	1
Revision	Lecture	1
Total		15

IV- Teaching and learning methods:

- Interactive lectures
- The lecturers are conducted using:
 - a. Brainstorming

- b. Audiovisual aids through animations and diagrams
- c. Interaction with the students through questions
- d. Student engagement with discussion
- e. Role Play for small groups
- f. Problem solving

V- Student Assessment:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ questions

C- Assessment schedule: Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments: Final-term examination: 100 % (25 marks)

E- Grading for by GPA System:

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

VI. List of references and resources:

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

VII- Facilities required for teaching and learning:

- Lectures hall
- Audiovisual aids at the lecture halls

Module Coordinator:

Name: Prof. Dr. Amal Salama

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Vertical Integration Module (2)

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title : Vertical Integration Module (2)

Department offering the Module: Family medicine Department

Program on which the Module is given: Menoufia M.B.B. ChCredit- hour Program (5+2)

Academic year: 1st Year

Semester: II

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 1/2 credit hours/Longitudinal.

Teaching Hours: 7.5 hours/ Lectures

B- Professional Information

I- Aim of the Module:

This module aims to provide the students with an early clinical exposure to common health problems, applying a holistic approach in clinical management with emphasis on disease prevention, health promotion and health education.



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II. Learning Outcomes of the

Module:

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

Key competency	Module LOs
1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	1.8.1. Illustrate the approach of studying clinical cases in the form of low back pain, joint pain, pallor and neck swelling, identify the significant data and interpret these data. 1.8.2. Identify new medical terms in the context of case study activities. 1.8.3. Illustrate the main ethical principles in dealing with patients and colleagues.
1.9 Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).	1.9.1. Retrieve the use of the recent information and communications technologies. 1.9.2. Design a management plan based on evidence-based medicine.
1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	1.10.1. Interpret the clinical and laboratory data in the clinical scenarios to formulate a differential diagnosis.

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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



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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 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.	Demonstrate respect to the roles of other colleagues in patient care..
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.	Work in a team evaluating his own and others workthrough constructive feedback.
		5.2.2.	Communicate respectfully and effectively with other colleagues

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 either written or electronic efficiently for the educational process.



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| 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:

Topic	Teaching Hours
An approach to a case of low back pain from anatomical view	0.5 hr
An approach to a case of low back pain from physiological view	0.5 hr
An approach to a case of low back pain from pharmacological view	0.5 hr
An approach to a case joint pain and joint examination	0.5 hr
A case presentation (role play)	0.5 hr
Mass examination	0.5 hr
A case presentation (role play)	0.5 hr
An approach to a case of pallor from physiological view pediatric age	0.5 hr
An approach to a case of pallor from physiological view adult age	0.5 hr
An approach to a case of pallor from pharmacological view	0.5 hr
A case of non-specific lymphadenitis	0.5 hr
A case of specific lymphadenitis	0.5 hr
Designing a case from the student surrounding community	0.5 hr
Revision	1 hr
Total	7.5

IV- Teaching and learning methods

- Lectures for acquisition of knowledge: Two large groups, each group once /week
- Power Point Presentations: at lectures.
- Role Play, case studies, and problem solving.
- Field Trips: individual visits to the students` nearest healthcare facilities

V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods



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- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ questions

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments:

Final-term examination: 100 % (12.5 marks)

VI. List of references and resources:

- Lecture notes
- Case Files Family Medicine, Fourth Edition. By: Eugene Toy, Donald Briscoe, Bruce Britton, Joel John Heidelbaugh. McGraw Hill / Medical, 2016.

VII- Facilities required for teaching and learning:

- 4- Faculty Lecture halls
- 5- Faculty library for textbooks & electronic library for web search.
- 6- Audiovisual aids as boards, data show and computers.

Module coordinator: Dr. Asmaa Abu Bakr

Program Coordinator: Prof. Zeinab Kasemy

توصيف مقرر القضايا المجتمعية

البرنامج الذي يتبعه المقرر: جميع البرامج الدراسية بالجامعة

أ معلومات أساسية :

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

<p>1-أهداف المقرر</p> <p>بدراسة هذا المقرر يتوقع أن يكون الطالب قادراً على :الوعي بمجموعة من القضايا المجتمعية الملحة وأهمها الزيادة السكانية والصحة الإنجابية ، حقوق الانسان ، الشفافية ومكافحة الفساد، التربية الاعلامية ، و التنمية المستدامة و التمييز بين المصطلحات الأكثر شيوعاً في كل قضية ، ومن ثم يمكنه تكوين عادات سلوكية إيجابية ، فضلاً عن تعزيز مفهوم المشاركة المجتمعية لديه ، و تثقيفه بالأخطار التي تحيط بالمجتمع المحلي والإقليمي والعالمي .كما يتيح المقرر ربط الجانب الأكاديمي الذي يدرسه الطالب بمتطلبات واحتياجات مجتمعية بما يساهم في تدريب الطلاب على التعلم الذاتي الذي ينمي القدرة على التعلم مدى الحياة و تنمية الجوانب الوجدانية عند الطلاب، تطوير المحتوى العلمي للمقرر ، ودعم بناء منظومة القيم عند الطلاب.</p>				2-المخرجات التعليمية المستهدفة من تدريس المقرر:		
<p>أ-المعلومات والمفاهيم</p> <ol style="list-style-type: none"> 1. يعرف الزيادة السكانية 2. يحددأبعاد المشكلة السكانية في مصر. 3. يشرح المشكلات المترتبة على الزيادة السكانية 4. يعرف الصحة الإنجابية 5. يحدد خدمات ووسائل تنظيم الأسرة. 6. يعرف حقوق الإنسان 7. يذكر مصادر حقوق 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. 						

<p>15. يعرف التربية الإعلامية</p> <p>16. يذكر أهداف التربية الإعلامية.</p> <p>17. يعدد المبادئ الأساسية للتنمية المستدامة.</p> <p>18. يذكر المجالات المستهدفة بالتنمية المستدامة</p> <p>19. يعرف التنمية المستدامة</p> <p>20. يذكر أهداف التنمية المستدامة</p> <p>21. التمييز بين أنماط الاستدامة.</p> <p>22. يذكر تحديات التنمية المستدامة.</p> <p>23. يعدد متطلبات التنمية المستدامة.</p>	
<p>1. يميز بين الفئات التي تستهدفها خدمات الصحة الإنجابية.</p> <p>2. يفرق بين وسائل الصحة الإنجابية</p> <p>3. يميز بين مصادر حقوق الإنسان</p> <p>4. يفرق بين أنواع حقوق الإنسان</p> <p>5. يناقش المبررات التي تدعو إلى التأكيد على حقوق الانسان</p> <p>6. يميز بين الشفافية و النزاهة و الفساد.</p> <p>7. يفرق بين أنواع الفساد</p> <p>8. يقارن بين وسائل مكافحة الفساد.</p> <p>9. يميز بين المبادئ الأساسية للتنمية المستدامة.</p> <p>10. يقارن بين التفكير التحليلي والنقدي فى منهج التربية الإعلامية.</p> <p>11. يربط بين الشائعات والوعى بالمواجهة وفق منهج التربية الإعلامية.</p> <p>12. يستنتج العلاقة بين حروب الجيل الرابع والتربية الإعلامية</p> <p>13. يربط بين الوعى بأهمية التنمية المستدامة ونجاحه فى عمله</p> <p>14. يفرق بين أبعاد التنمية المستدامة.</p>	<p>ب-المهارات الذهنية</p>
<p>1. يمارس المهارات المكتسبة من دراسة التربية الإعلامية.</p> <p>2. يقترح بدائل للتنمية المستدامة</p> <p>3. يعد تقريراً عن أحد القضايا المجتمعية .</p>	<p>ج-المهارات المهنية</p>

3-محتوى المقرر

الفصل الأول: المشكلات المترتبة على الزيادة السكانية وأثرها على الصحة الإنجابية

أولاً: أبعاد المشكلة السكانية في مصر.

ثانياً: المشكلات المترتبة على الزيادة السكانية ثالثاً: مفهوم الصحة الإنجابية

رابعاً: الفئات التي تستهدفها خدمات الصحة الإنجابية

خامساً: خدمات ووسائل تنظيم الأسرة.

سادساً: وسائل الصحة الإنجابية

أنشطة الفصل الأول

أسئلة وإجابات الفصل الأول.

الفصل الثاني: حقوق الإنسان

أولاً: تعريف حقوق الإنسان.

ثانياً: خصائص حقوق الإنسان

ثالثاً: مصادر حقوق الإنسان

رابعاً: أنواع حقوق الإنسان.

أنشطة الفصل الثاني

أسئلة وإجابات الفصل الثاني .

الفصل الثالث: الشفافية ومكافحة الفساد

مقدمة

أولاً: الشفافية والنزاهة

ثانياً: الفساد

ثالثاً: أنواع الفساد. الفصل الثالث: الشفافية ومكافحة الفساد

رابعاً: وسائل مكافحة الفساد

أنشطة الفصل الثالث

أسئلة وإجابات الفصل الثالث

الفصل الرابع: التربية الإعلامية الرقمية

أولاً: مفهوم التربية الإعلامية

ثانياً: المهارات المكتسبة من التربية الإعلامية

<p>ثالثاً: أهداف التربية الإعلامية.</p> <p>الفصل الرابع: التربية الإعلامية الرقمية</p> <p>رابعاً: التفكير التحليلي فى منهج التربية الإعلامية</p> <p>خامساً: التفكير النقدي فى منهج التربية الإعلامية</p> <p>سادساً: الاعلام الرقمي والتربية الإعلامية.</p> <p>الفصل الرابع: التربية الإعلامية الرقمية</p> <p>سابعاً: حروب الجيل الرابع والتربية الإعلامية</p> <p>ثامناً: الشائعات والوعى بالمواجهة وفق منهج التربية الإعلامية</p> <p>أنشطة الفصل الرابع.</p> <p>أسئلة وإجابات الفصل الرابع</p> <p>الفصل الخامس التنمية المستدامة</p> <p>مقدمة</p> <p>أولاً: أهداف التنمية المستدامة</p> <p>ثانياً: أهمية التنمية المستدامة</p> <p>ثالثاً: المبادئ الأساسية للتنمية المستدامة.</p> <p>رابعاً: أبعاد التنمية المستدامة</p> <p>خامساً: المجالات المستهدفة بالتنمية المستدامة</p> <p>سادساً: مكونات وأنماط الاستدامة</p> <p>سابعاً: تحديات التنمية المستدامة.</p> <p>ثامناً: متطلبات التنمية المستدامة.</p> <p>أنشطة الفصل الخامس</p> <p>أسئلة وإجابات الفصل الخامس.</p>	
<p>أ- المحاضرات ب- المناقشات ج- الفيديوهات التعليمية</p>	<p>4- أساليب التدريس والتعلم</p>
<ul style="list-style-type: none"> محاضرات إضافية إتاحة فرصة أوسع للنقاش أثناء الساعات المكتبية أنشطة إثرائية 	<p>5- أساليب التدريس والتعلم للطلاب</p>



ذوى القدرات المحدودة	
6-تقييم الطلاب	
1- الأساليب المستخدمة	(1) الأنشطة التعليمية البحثية (2) اختبار منتصف الفصل الدراسي (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: 30 درجة. منتصف الفصل الدراسي 20 درجة نهاية الفصل الدراسي: 50 درجة
7-قائمة الكتب الدراسية والمراجع	
أ-مذكرات	الكتاب الإلكتروني المعد تحت إشراف الجامعة
ب-كتب ملزمة	لا يوجد
ج-كتب مقترحة	
د-دوريات علمية أو نشرات	لا يوجد

<u>Module Coordinator:</u> Name: Prof. Dr. Amal Salama	<u>Program Coordinator:</u> Name: Prof. Dr. Zeinab Kasemy
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Semester III

Cardiovascular system

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Cardiovascular system

Code No: CVS 2101

Department offering the course and teaching hours: Anatomy, histology, biochemistry, physiology, pathology, pharmacology, and microbiology.

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

Academic year/level: Second level

Semester: Semester III

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 9.5 credit hours

	Teaching hours		
	Lectures	Practical	Activities
Anatomy	7.5	11.25	22.5
Histology	2.7	4.05	8.1
Biochemistry	13.2	19.8	39.6
Physiology	19.8	29.7	59.4
Pathology	6.6	9.9	19.8
Pharmacology	5.7	8.55	17.1
Microbiology	1.5	2.25	4.5
<i>Total</i>	<i>57</i>	<i>85.5</i>	<i>171</i>

- Professional Information

I- Aim of the module:



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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. The module will help students to Explain and identify inborn error of carbohydrate and lipid metabolism.

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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module Los
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Describe the external and internal features of the heart.</p> <p>4.1.2. Outline the surface anatomy, blood vessels & nerve supply of the heart and valves and the sites of auscultation</p> <p>4.1.3. Describe types & innervation of the pericardium & how the cardiac pain impulses reach consciousness.</p> <p>4.1.4. Describe the anatomy of the great vessels & apply the important related clinical notes.</p> <p>4.1.5. Clarify the structural characteristics of the cardiac muscle & vascular tissue</p> <p>4.1.6. Describe the functional capabilities of each tissue type and relate them to the structure.</p> <p>4.1.7. Discuss the basic histological structure of vascular systems.</p>

		<p>4.1.8. Define venous return. Explain 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.</p> <p>4.1.9. Discuss the interaction of intrinsic (local), neural, and humoral control mechanisms and contrast their relative dominance in the CNS, coronary, cutaneous, and capillary circulations.</p> <p>4.1.10. Apply the anatomical facts while examining the living subject to reach a proper diagnosis.</p> <p>4.1.11. Correlate the structure with the function of cardiac muscle and blood vessels</p> <p>4.1.12. Interpret the light microscopic appearance of normal cells of cardiac muscle and blood vessels</p> <p>4.1.13. Conclude the normal structure of histological slide.</p> <p>4.1.14. Construct structures that could be present in a cell from its function</p> <p>4.1.15. Relate the composition of each tissue type to its specific functions.</p> <p>4.1.16. Distinguish a physiological from pathological condition.</p> <p>4.1.17. Integrate physiology of CVS with other basic and clinical sciences.</p>
4.2	Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body’s homeostasis.	<p>4.2.1. Discuss the site, importance, steps and regulatory mechanisms of glycolysis, citric acid cycle, hexose monophosphate pathway, uronic acid pathway, gluconeogenesis, glycogen metabolism.</p> <p>4.2.2. Describe the site, importance, steps and regulatory mechanisms of fatty acid synthesis & oxidation & cholesterol & ketone bodies metabolism.</p> <p>4.2.3. Identify the types, structures and metabolism of various lipoproteins.</p> <p>4.2.4. Discuss interconversion of major food stuffs, metabolic interrelationship between adipose tissue, the liver and extrahepatic tissues in starve-fed state.</p> <p>4.2.5. Analyze the related metabolic disorders of galactose and fructose metabolism, fatty acid oxidation & phospholipid metabolism and their clinical application on biochemical and molecular basis.</p>

		<p>4.2.6. Interpret symptoms, signs and biochemical laboratory findings of some inborn errors of metabolic disorders, dyslipidemia & myocardial infarction.</p> <p>4.2.7. Analyze the etiology of metabolic disturbance in a given case study report related to carbohydrates & lipid metabolism.</p> <p>4.2.8. Predict the outcome of disturbed function.</p>
4.5	Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1. Identify the causes and pathogenesis, fate, and complications of rheumatic fever, endocarditis, pericarditis, cardiomyopathy, heart failure,</p> <p>4.5.2. Identify the causes and pathogenesis, fate, and complications of atherosclerosis, hypertension, ischemic coronary diseases, aneurysm and tumors of blood vessels.</p> <p>4.5.3. Predict the diagnosis of different diseases based on the underlying gross and microscopic pictures.</p> <p>4.5.4. Apply the microbiological background while examining the patients with cardiovascular system infections to reach a proper diagnosis.</p>
4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. Describe the characteristic gross and microscopic features of rheumatic fever, endocarditis, pericarditis, cardiomyopathy.</p> <p>4.6.2. Identify the characteristic gross and microscopic features of atherosclerosis, ischemic coronary diseases, aneurysm and tumors of blood vessels.</p>
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.	<p>4.7.1. List the drugs used to treat chronic heart failure, hypertension, angina & arrhythmia.</p> <p>4.7.2. Identify the beneficial effects of beta blockers & spironolactone in reducing mortality in heart failure.</p> <p>4.7.3. Differentiate between the role of different antihypertensive drugs in different disease states,</p> <p>4.7.4. Identify the importance of beta blockers as first choice maintenance therapy of classic angina.</p> <p>4.7.5. Outline the use of different antiarrhythmic drugs in various types of arrhythmias.</p> <p>4.7.6. Explain the mechanism of action of drugs used in heart failure and hypertension</p> <p>4.7.7. List the main adverse effects of thiazide, frusemide, potassium sparing diuretics, sympathomimetics used in heart failure and hypotension,</p>

		<p>4.7.8. Enumerate the main adverse effects of sympathetic depressants used in treatment of Hypertension, beta blockers and alpha blockers & main antiarrhythmic drugs.</p> <p>4.7.9. Explain the adverse effects of sympathomimetic, beta and alpha blockers.</p> <p>4.7.10. Outline different types of beta blockers and select the appropriate drug for different disease states</p> <p>4.7.11. Discuss the choices of different antiarrhythmic drugs in various types of arrhythmias.</p> <p>4.7.12. Explain the role of the increase in intracellular sodium & calcium in the beneficial effects of digoxin on myocardial contractility as well as for its electrophysiological & arrhythmogenic effects,</p> <p>4.7.13. Outline the main difference between ACEis and ARBs and why they are preferred in diabetics and in patient with nephropathy.</p> <p>4.7.14. Select the proper antihypertensive during pregnancy</p>
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.	<p>4.8.1. Name the parts of a typical bipolar (Lead II) ECG tracing and explain the relationship between each of the waves, intervals, and segments in relation to the electrical state of the heart.</p> <p>4.8.2. Identify the most important micro-organisms causing infections of cardiovascular system.</p> <p>4.8.3. Integrate basic anatomical, biochemical, histopathological, and physiological aspects of heart & blood vessels with clinical data.</p> <p>4.8.4. Predict the outcome of disturbed function.</p> <p>4.8.5. Solve problems through case study</p> <p>4.8.6. Interpret the results of practical lab.</p> <p>4.8.7. Sketch a typical action potential in a ventricular muscle and a pacemaker cell.</p> <p>4.8.8. Draw, in correct temporal relationship, the pressure, volume, heart sound, and ECG changes in the cardiac cycle</p> <p>4.8.9. Demonstrate the external and internal anatomical features of the heart chambers, blood vessels of the heart, related vessels to the heart & vessels of upper & lower limbs</p> <p>4.8.10. Examine the histological glass slides & differentiate between types of cells and tissues in histological slides.</p> <p>4.8.11. Draw and label the structures they have seen in electron photomicrographs and under light microscope during practical classes.</p>

- 4.8.12. Estimate serum levels of glucose by colorimetric methods.
- 4.8.13. Estimate serum levels of cholesterol by colorimetric methods.
- 4.8.14. Perform a measurement of arterial blood pressure.
- 4.8.15. Manipulate a stethoscope for hearing heart and respiratory sounds.
- 4.8.16. Record and interpret an electrocardiogram.
- 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. Identify causative micro-organisms of cardiovascular infections by microscopic examination, culture character, biochemical and serological reactions.

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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
Introduction and morphology of the heart	1.5	Anatomy
Blood and nerve supply of the heart & anatomy of the Pericardium	1.5	Anatomy
Great blood vessels (ascending aorta, arch, descending thoracic aorta and azygos venous system	1.5	Anatomy
Abdominopelvic arteries: (abdominal aorta, common iliac, ext. and internal iliac arteries	1.5	Anatomy
Development of cardiovascular system	1.5	Anatomy
Glycolysis	1.5	Biochemistry
Citric acid cycle	1.5	Biochemistry
Lipogenesis	1.5	Biochemistry
fatty acid oxidation and eicosanoids	1.5	Biochemistry
ketone bodies metabolism and cholesterol metabolism	1.5	Biochemistry
Lipoproteins, adipose tissue metabolism	1.5	Biochemistry
Integration of metabolism	1.2	Biochemistry
Hexose monophosphate pathway, uronic acid pathway, gluconeogenesis	1.5	Biochemistry
Glycogen metabolism	1.5	Biochemistry
Cardiac muscle	1.5	Histology
Vascular System	1.2	Histology
Infectious diseases of cardiovascular system	1.5	Microbiology
Rheumatic fever	1.5	Pathology
Endocarditis, myocardial diseases, pericarditis and heart failure	1.5	Pathology
Ischemic Heart diseases	0.6	Pathology



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Atherosclerosis and hypertension	1.5	Pathology
Tumors of blood vessels	1.5	Pathology
Ischemic heart disease	1	Pharmacology
Hypertension	1	Pharmacology
Arrhythmia	0.7	Pharmacology
Heart failure1	1.5	Pharmacology
Heart failure2	1.5	Pharmacology
Cardiac properties I	1.5	Physiology
Cardiac properties II	1.5	Physiology
Cardiac cycle	1.5	Physiology
ECG	1.8	Physiology
Heart rate	1.5	Physiology
Cardiac output	1.5	Physiology
Cardiac work, reserve & energetics	1.5	Physiology
ABP	1.5	Physiology
Regulation of ABP	1.5	Physiology
Capillary circulation	1.5	Physiology
Pulmonary & venous circulation	1.5	Physiology
Coronary and cerebral circulation	1.5	Physiology
Hemodynamic	1.5	Physiology
Total	57	
Practical		
Topic	Teaching Hours	Department
External and internal features of the heart	1.5	Anatomy
Blood supply of the heart-pericardium	1.5	Anatomy
Heart and related vessels	1.5	Anatomy
Abdominopelvic vessels	1.5	Anatomy
Carotid and subclavian system	1.5	Anatomy
Blood vessels of extremities	1.5	Anatomy
Radiological anatomy of the blood vessels	2.25	Anatomy
Investigation of a case of diabetes	2	Biochemistry
Glucose colorimetry	1.5	Biochemistry
Glucosuria , fructosuria and a case study on diabetes	1.5	Biochemistry
Lipid profile	1.5	Biochemistry
Dyslipoproteinemia and hypolipidemic drugs	1.5	Biochemistry
Colorimetric determination of serum cholesterol	1.5	Biochemistry
Cardiac markers	2	Biochemistry



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Case study	2	Biochemistry
Case study	2	Biochemistry
Glucose tolerance and oral glucose tolerance test	2	Biochemistry
Revision	2.3	Biochemistry
Vascular System	1.5	Histology
Vascular System	1.05	Histology
Cardiac muscle	1.5	Histology
rheumatic fever	2.25	Microbiology
Rheumatic fever	2	Pathology
Atherosclerosis and aneurysm	3	Pathology
Tumors of blood vessels	2	Pathology
Revision	2.9	Pathology
Treatment of Ischemic heart disease	2	Pharmacology
Hypertension	2	Pharmacology
Experimental(effect of unknown drug on isolated rabbit heart	2	Pharmacology
Revision	2.55	Pharmacology
Determination of the pacemaker of frog's heart & Effect of Drug on frog's heart.	3	Physiology
Demonstration of extrasystole & impulse conduction (Heart block) in frog	3	Physiology
Heart sounds	1.5	Physiology
Electrocardiograph and Normal ECG	3	Physiology
Effect of respiration, body posture and exercise on ECG record	1.5	Physiology
Revision	3	Physiology
Arterial pulse	2.7	Physiology
Arterial blood pressure measurement	4.5	Physiology
Effect of respiration, body posture and exercise on ABP.	1.5	Physiology
Cold pressor effect and Capillary fragility (Hiss test)	1.5	Physiology
Revision	3	Physiology
Cutaneous vascular reaction to mechanical stimuli & reactive hyperemia	1.5	Physiology
Total	51.9	

IV– Teaching and learning Methods:



1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

2. Practical Teaching: conducted using:

- Practical sessions

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes 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
Regular Evaluation	30%	10% written at the end of and periodicals including problem-solving, multiple-choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give	At the end of the semester

reason, matching, extended matching, complete and compare.

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	95	40%
Final Practical exam.	71.25	30%
Activities	71.25	30%
Total	237.5	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
- Essential Books:

Anatomy:

- Gray's Anatomy for Students. 3rd Edition. By: Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

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- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.

Histology:



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- Junqueira's Basic Histology: Text and Atlas, 15th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2018.
- Wheater's Functional Histology, 6th Edition. By: Barbara Young, Geraldine O'Dowd, Phillip Woodford. Churchill Livingstone, 2014.
- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.

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- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.
- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- Manual of Practical Microbiology & Immunology, 10th edition. By: El mishad AM. El-Ahram Press, 2014.

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



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Key Competencies & Module LOs

vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.17	x	x		x	x		x		x	x	x
4.2	4.2.1, 4.2.8	x	x		x	x		x		x	x	x
4.5	4.5.1 to 4.5.4	x	x		x	x		x		x	x	x
4.6	4.6.1, 4.6.2	x	x		x	x		x		x	x	x
4.7	4.7.1 to 4.7.14	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:

Name: Dr.Sherine Sobhy

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Respiratory System

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title: Respiratory system

Code No: RES 2102

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

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

Academic year: 2nd Year

Semester: III

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 6 credit hours/8 weeks

	Teaching hours		
	Lectures	Practical	Activities
Anatomy	6	9	18
Histology	5.1	7.65	15.3
Physiology	9	13.5	27
Biochemistry	4.5	6.75	13.5
Pathology	6	9	18
Pharmacology	3	4.5	13.5
Microbiology	0.9	1.35	2.7
Parasitology	1.5	2.25	4.5
Total	36	54	108

B- Professional Information



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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 parasitic and 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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Identify the components and development of respiratory system.</p> <p>4.1.2. Identify the anatomical structures of the nose, nasopharynx, paranasal sinuses and laryngeal components and their important functions.</p> <p>4.1.3. Recognize the site, structure, and functions of the trachea and main bronchi.</p> <p>4.1.4. Describe the anatomy of the pleurae and lung.</p> <p>4.1.5. Determine the development and congenital anomalies of the respiratory tract.</p> <p>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.</p>

		<p>4.1.7. Compare between structure of different parts of respiratory tract and their function.</p> <p>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.</p> <p>4.1.9. Identify the respiratory cycle and discuss how different pressure, airflow, and lung volume change during a normal quiet breathing cycle and factors influencing it.</p> <p>4.1.10. Explain the curves of the different lung volumes & capacities and list different conditions leading to respiratory distress syndrome.</p> <p>4.1.11. Identify the regions in the central nervous system in the generation and control of cyclic breathing.</p>
4.2	Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	<p>4.2.1. Describe gas exchange and ventilation-perfusion relationship.</p> <p>4.2.2. Define and point out oxido-reductases enzymes and components of respiratory chain.</p> <p>4.2.3. Define pH, buffers, anion gap and paradoxical alkalosis</p>
4.5	Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1. Recognize different respiratory disorders and different types of hypoxias, dyspnea and cyanosis.</p> <p>4.5.2. Identify normal flora and immunity of respiratory tract</p> <p>4.5.3. Identify the most important micro-organisms causing Upper and lower respiratory tract infections</p> <p>4.5.4. Identify the life cycles and pathogenesis of parasites and arthropods that can affect the respiratory system.</p> <p>4.5.5. Recognize morphology, clinical presentations, complications, diagnosis, treatment and control of parasites and arthropods that can affect the respiratory system.</p> <p>4.5.6. Differentiate between metabolic and respiratory acidosis and alkalosis with their compensatory mechanism.</p>



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4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. Identify the etiopathogenesis of diseases encountered within the respiratory system</p> <p>4.6.2. Describe the characteristic gross and microscopic pictures of different pathologic lesions within respiratory system and the associated functional disturbances.</p> <p>4.6.3. Determine the fate and complications of different disease processes.</p> <p>4.6.4. Describe the mechanism of respiratory distress syndrome and discriminate between different types of hypoxias.</p> <p>4.6.5. Explain the role of respiratory system in PH regulation.</p>
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.	<p>4.7.1. Identify the major groups (Antihistaminic, bronchodilators chemotherapy) involved in management of respiratory diseases. including bronchial asthma, TB and chest infections.</p> <p>4.7.2. Describe the kinetics, mechanism of actions, therapeutic uses, side effects, contraindications and drug interactions of different drugs used in treatment of respiratory diseases</p> <p>4.7.3. Design a pharmacological plan for management of pneumonia.</p> <p>4.7.4. Outline a pharmacological plan for management of bronchial asthma.</p> <p>4.7.5. Formulate a pharmacological plan for management of COPD.</p>



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- 4.8** Demonstrate basic sciences specific practical skills and procedures relevant to future practice, recognizing their scientific basis, and interpret common diagnostic modalities, including: imaging, electrocardiograms, laboratory assays, pathologic studies, and functional assessment tests.
- 4.8.1. Label dissected structures of the upper and lower respiratory tract according to the present relations.
 - 4.8.2. Differentiate between the consistency of arteries, veins & nerves.
 - 4.8.3. Draw diagrams showing courses and distribution of nerves and main blood vessels in respiratory tract.
 - 4.8.4. Draw diagrams showing surface anatomy of pleura and lung.
 - 4.8.5. Interpret chest x- rays to recognize the anatomical landmarks.
 - 4.8.6. Draw diagrams showing different components of respiratory system seen under light microscope during practical classes.
 - 4.8.7. Differentiate between trachea, bronchi, bronchioles and alveoli in histological slides.
 - 4.8.8. Differentiate between adult, fetal and injected lung in histological slides.
 - 4.8.9. Draw diagrams showing thick and thin skin.
 - 4.8.10. Differentiate between the thick and thin skin in histological slides.
 - 4.8.11. Sketch and label the pulmonary function curve.
 - 4.8.12. Auscultate breath sounds.
 - 4.8.13. Interpretate data from Arterial Blood Gases (ABG): pH, arterial pressure of oxygen (PaO₂), Partial pressure of carbon dioxide (PaCO₂), Arterial blood pH, Oxygen saturation (SaO₂) and Bicarbonate - (HCO₃).
 - 4.8.14. Identify biochemical instruments used to measure pH with the principle and action.
 - 4.8.15. Use the pH meter to estimate pH of Gastric juice, Plasma, Saliva & Urine.
 - 4.8.16. Use different laboratory techniques for handling pathologic samples, appropriate types of fixatives and processing techniques.
 - 4.8.17. Assess gross and microscopic pictures aiming at reaching the correct diagnosis.
 - 4.8.18. Select a laboratory diagnostic approach to reach a proper diagnosis for respiratory tract infections based on microscopic examination,

- Culture character and Biochemical reaction.
- 4.8.19. Draw parasites in their different stages specially the diagnostic and infective stages.
 - 4.8.20. Examine microscopic slides of different parasitic stages.
 - 4.8.21. Assess hydatid cyst by naked eye (Jars).
 - 4.8.22. Analyze the given information from spirometer curves so can distinguish between obstructive and restrictive lung disease
 - 4.8.23. Correlate PO₂ tension and hemoglobin saturation, and blood oxygen content
 - 4.8.24. Interpret a pathology report.
 - 4.8.25. Judge the dose of different drugs used in respiratory disorders simultaneously administered and to avoid any combination that could result in serious reactions.

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.	<ol style="list-style-type: none"> 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.	<ol style="list-style-type: none"> 6.2.1 Formulate a learning plan for the module in focus. 6.2.2 Apply the learning plan respecting emerging priorities and encounters



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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		
Topics	Teaching hours	Department
Anatomy of pleura and Development of respiratory system	3	Anatomy
Anatomy of nose, paranasal sinuses, nasopharynx	1.5	Anatomy
Trachea, bronchi, lung	1.5	Anatomy
Ph, acidosis and alkalosis	3	Biochemistry
respiratory chain and lung surfactant	1.5	Biochemistry
Conducting portion of the respiratory system	1	Histology
Respiratory portion of the Respiratory system	1	Histology
Skin (Thick and thin skin)	1.6	Histology
Skin appendages (Hair, hair follicles, nails, sweat & sebaceous glands)	1.5	Histology
Common bacterial and viral respiratory tract infection	0.9	Microbiology
<i>Paragonimus westermani</i> and hydatid disease	1.5	Parasitology
COPD	2	Pathology
Inflammatory lesions of lower respiratory system	2	Pathology
Tumors of lung and pleura	2	Pathology
Chemotherapy used in treatment of chest infections	1.5	Pharmacology
Pharmacotherapy of TB	1.5	Pharmacology
Mechanics of breathing	1.5	Physiology



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Pulmonary functions	1.5	Physiology
Transport of gases	1.5	Physiology
Regulation of Respiration	1.5	physiology
Nervous regulation and types of hypoxia.	3	Physiology
Total	36	
Practical		
Topic	Teaching hours	Department
Structure of nose, paranasal sinuses, nasopharynx	1.5	Anatomy
Larynx external features	1.5	Anatomy
Larynx internal features	1.5	Anatomy
Trachea, pleura, lung	1.5	Anatomy
Revision	1.5	Anatomy
Revision	1.5	Anatomy
Instrumentation used to measure pH and Measure pH of body fluids	3	Biochemistry
Arterial blood gas (ABG) analysis	2	Biochemistry
Interpretation of blood pH and ABG results	1.75	Biochemistry
Trachea	1.5	Histology
Comparison between trachea, bronchus and bronchiole	1.5	Histology
Adult lung, Injected lung, Fetal lung	1.5	Histology
Thick skin/ Thin skin	1.5	Histology
Revision	1.65	Histology
Microbiological diagnosis of common respiratory tract infection	1.35	Microbiology
Paragonimus westermani	1	Parasitology
hydatid disease	1.25	Parasitology
Nasal polyp, Rhinoscleroma, Angiofibroma	3	Pathology
Inverted papilloma, Laryngeal carcinoma	3	Pathology
Emphysema, Bronchiectasis		
Bronchogenic carcinoma, Mesothelioma	3	Pathology
Revision	1.5	Pathology
Case of pneumonia	1.5	Pharmacology
Case of bronchial asthma	1.5	Pharmacology
Case of COPD	1.5	Pharmacology
Breathing sounds	3	Physiology



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Static pulmonary function	3	Physiology
Dynamic pulmonary function	3	Physiology
Obstructive and restrictive lung diseases	1.5	Physiology
Arterial blood gases	1.5	Physiology
Case study	1.5	Physiology
Total	54	

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
- Skill Lab

3. Self-directed Learning

V- Student Assessment:

A. Attendance Criteria:

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

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes a multiple-choice questions, problems-solving exercises and independent learning activities in all subjects. These will be given during tutorial and practical sessions. The Answers are presented and discussed immediately with you after the assessment. The results will be made available to the students.
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C- Summative Assessment

methods:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	60	40%
Final Practical exam.	45	30%
Activities	45	30%
Total	150	100%

E- Grading for by GPA System:

The Percentage	Symbol	Grade
> 85%	A	Excellent.
75-<85 %	B	Very Good
65 - < 75 %	C	Good.
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- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
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- Paniker's Textbook of Medical Parasitology, 8th Edition. By: C. K. Jayaram Paniker. JP Medical Ltd, 2017
- 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Skill Lab	Self-directed study	Formative Assessment		Summative Assessment				
							Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x							x		x
4.1	4.1.1 to 4.1.11	x	x			x	x		x		x	x	x
4.2	4.2.1 to 4.2.3	x	x			x	x		x		x	x	x
4.5	4.5.1 to 4.5.6	x	x			x	x		x		x	x	x
4.6	4.6.1 to 4.6.5	x	x			x	x		x		x	x	x
4.7	4.7.1 to 4.7.5	x	x			x	x		x		x	x	x
4.8	4.8.1 to 4.8.25			x				x		x	x		x



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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. Nadia Saied Badawy

Signature: Dr. Nadia Saied Badawy

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Signature: Prof. Dr. Zeinab Kasemy

Nutrition

University: Menoufia

Faculty: Medicine

A-Administrative information

Module title: Nutrition

Code No: NUT –2103

Department offering the Module : Biochemistry, Physiology, and Pharmacology

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

Academic year/level: second level

Semester: first semester

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 2.5 hours/ 2 weeks

	Teaching hours		
	Lectures	Practical	Activities
Biochemistry	12	18	36
Physiology	2.1	3.15	6.3
Pharmacology	0.9	1.35	2.7
Total	15	22.5	45

Professional Information

I – Aim of the Module:

To provide the students with basic knowledge and skills regarding protein metabolism and its disorders, importance of vitamins, oxidants and antioxidants, energy balance, metabolic rate, regulation of food intake and associated imbalance, and the pharmacology of drugs used to treat obesity, lipid lowering drugs, and some agents used to treat electrolyte disturbance

II – Learning Outcomes of the Module:

Competency Area 2: The graduate as a health promoter.



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Key Competency	Module LOs
2.3 Discuss the role of nutrition and physical activity in health.	<p>1.3.1. Identify metabolic rate and factors affecting it</p> <p>1.3.2. Describe the mechanism body temperature regulation</p> <p>1.3.3.</p> <p>1.3.4. Describe the mechanisms regulating food intake and specific dynamic action of food</p> <p>1.3.5. Describe the body adaptation to starvation.</p> <p>1.3.6. Identify the etiology of metabolic disturbance in a given case study report</p> <p>1.3.7. Explain the mechanism of body temperature regulation upon exposure to hot and cold weather.</p> <p>1.3.8. Differentiate metabolic rate from basal metabolic rate</p> <p>1.3.9. Distinguish between different factors causing obesity</p>

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.	<p>3.1.3 Demonstrate a professional. respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.4 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	4.2.1. Describe sources and fate of ammonia. 4.2.2. Describe synthesis and amino acids (AA) degradation. 4.2.3. Identify specialized products from different amino acids. 4.2.4. Identify the related inborn errors of metabolism and their clinical application on biochemical basis 4.2.5. Interpret symptoms, signs and biochemical laboratory findings of some protein metabolic disorders 4.2.6. Define vitamins and their classification 4.2.7. Point out dietary sources of vitamins 4.2.8. Point out symptoms and signs of vitamin deficiency 4.2.9. Point out manifestations of hypervitaminosis 4.2.10. Interpret symptoms, signs and biochemical laboratory findings of some vitamin deficiency disease. 4.2.11. Point-out the etiology of vitamins deficiency disease in a given case study report. 4.2.12. Define types of free radicals. 4.2.13. Illustrate the endogenous and exogenous sources of free radicals 4.2.14. Describe toxic effect of free radicals. 4.2.15. Describe role of antioxidant in preventing and scavenging these toxic effects.



- 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 mode of action of drugs used to treat obesity, lipid lowering drugs, and some agents used to treat electrolyte disturbance
 - 4.7.2. Explain the behavior of different drugs in the body with food, and the outcome of their interaction (Drug-Food) interactions.
 - 4.7.3. Describe the different adverse reactions that could result from the use of different drugs and the mechanism of these reactions.
 - 4.7.4. Mention the limitations to the use of drugs such as contraindications and drug interactions.
 - 4.7.5. Prescribe a prescription on a rational base for selected important problems as obesity, electrolyte disturbances and hyperlipoproteinemia considering patient age, weight and health status.
 - 4.7.6. Select the proper drug(s) to treat each particular patient
 - 4.7.7. Identify consideration the appropriate route of administration, bioavailability, pharmacokinetics, age and sex associated diseases..
 - 4.7.8. Judge the possible results if different drugs simultaneously administered with certain types of foods 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. Estimate serum level of albumin by colorimetric methods. 4.8.2. Identify the clinical significance of determination of serum level of albumin. 4.8.3. Interpret the normal and abnormal electrophoresis curve for plasma proteins 4.8.4. Analyze metabolic rate curve and factors affecting 4.8.5. Use medical thermometer by different roots to measure body temperature curve 4.8.6. Calculate body mass index and apply it for diagnosis of weight abnormalities.
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Competency Area 5: The graduate as a member of the health team and part of the health care system.

Key competency	Module LOs
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	



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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		
LECTURES	TEACHING HOURS	DEPARTMENT
Synthesis and catabolism of protein and amino acids	2	Biochemistry
Ammonia synthesis and related diseases	2	Biochemistry
Conversion of AA to specialized products	2	Biochemistry
Inborn errors of protein metabolism	2	Biochemistry
Fat- soluble vitamins	1	Biochemistry
Water-soluble vitamins	1	Biochemistry
Free radicals and antioxidants	2	Biochemistry
Metabolic rate & body temperature regulation	1	Physiology
Regulation of food intake and Specific dynamic action of food	1.1	Physiology
Lipid lowering drugs	0.9	Pharmacology
Total	15	
PRACTICAL	ACTUAL HOURS	TEACHER/ FACILITATOR
Colorimetric assessment of serum Albumin	3	Biochemistry
Electrophoresis of plasma protein normal and abnormal	3	Biochemistry
Cases discussion	3	Biochemistry
lab results interpretation	3	Biochemistry
Revision	3	Biochemistry
Revision or exam	3	Biochemistry
Measurement and factors affecting metabolic rate	1.15	physiology
Measurement of body temperature and Regulation of body temperature upon exposure to hot & cold weather	2	physiology
Pharmacotherapy of obesity	1.35	Pharmacology

Food-Drug interactions		
Total	22.5	

IV– Teaching and learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

2. Practical Teaching: conducted using:

- Practical sessions

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment methods:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	25	40%
Final Practical exam.	18.75	30%
Activities	18.75	30%
Total	62.5	100%

E- Grading for by GPA System:

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



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VI. List of references and resources:

Lecture Notes of Module Departments

References:

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.
- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.

Biochemistry:

- Harper's Illustrated Biochemistry 31st Edition. By: Victor W. Rodwell, David Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil. McGraw Hill / Medical, 2018.
- Lippincott's Illustrated Reviews Biochemistry, 7TH Edition. By: Denise Ferrier. LWW, 2017.
- Textbook of Biochemistry with Clinical Correlations 7th Edition. By: Thomas M. Devlin. John Wiley & Sons, 2010.

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.
- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013

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- 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
2.3	2.3.1 to 2.3.8											
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.2	4.2.1, 4.2.15	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 4.8.6			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. Marwa Mohamed Khalil

Signature: Dr. Marwa Mohamed Khalil

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Signature: Prof. Dr. Zeinab Kasemy

Evidence Based Medicine (Basics of medical Research and Biostatistics)

University: Menoufia

Faculty: Medicine

A- Administrative Information

Module Title: Evidence Based Medicine (Basics of medical Research and Biostatistics)

Code No: EBM/BMR/B 2104

Department offering the course: Community Medicine and Public Health Department.

Academic year/level: Second level

Semester: Semester III

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 2 credit hours/ Longitudinal

Teaching Hours: 30 hours/ Lectures

- Professional Information

I – Aim of the Module:

To prepare a scientific research-oriented physician capable of implementing different designs of studies following evidence based medicine to share in community development and solving community problems connecting between medical statistics and its clinical application in the hospital on

II – Learning Outcomes of the Module:

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

Key competency	Module LOs
1.9 Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).	<p>1.9.1. Define sources of data collections and different sampling techniques</p> <p>1.9.2. Identify different types of data and convert it from type to type</p> <p>1.9.3. Modulate different types of samples and define its proper use</p> <p>1.9.4. Conclude a proper information and introduce beneficial recommendation for the problem solving.</p> <p>1.9.5. Retrieve information and able to use the recent information and communications technologies.</p>



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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

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.	<p>5.2.3 Demonstrate respect towards colleagues.</p> <p>5.2.4 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>
6.8 Critically appraise research studies and scientific papers in terms of integrity, reliability, and applicability.	<p>6.8.1 Define research and list its components</p> <p>6.8.2 Formulate a research question about a certain problem.</p> <p>6.8.3 Identify the steps of critical analysis of a research paper.</p>
6.9 Analyze and use numerical data including the use of basic statistical methods.	<p>6.9.1 Define statistics, its functions and describe different types of data</p> <p>6.9.2 Define morbidity, mortality and fertility indices</p> <p>6.9.3 Identify test of significance appropriate of each type of data</p> <p>6.9.4 Demonstrate ethical relationship with faculty and staff members.</p> <p>6.9.5 Choose the best study design for the research objectives.</p>

	6.9.6 Differentiate between different types of study designs and their assumptions.
	6.9.7 Minimize research bias and follow research ethics.
6.10 Summarize and present to professional and lay audiences the findings of relevant research and scholarly inquiry.	6.10.1 Define different methods of data presentation; also describe different shapes of distribution of data 6.10.2 Apply the skills to present data in its different forms (tabular, graphical and mathematical) 6.10.3 Express freely and adequately themselves by improving descriptive capabilities and communication skills.

III- Module Contents:

Theoretical	
Topic	Teaching Hours
Research	4.5
Study design	4.5
Data & sampling	3
Graphical & Mathematical presentation	3
Normal distribution curve & test of significance	3
Hospital statistics	3
Vital statistics	3
Evidence based medicine	3
Revision	3
Total	30

IV- Teaching and learning methods

- 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

V- Student Assessment:

A. Attendance Criteria:

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



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B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ questions

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments:

Final-term examination: 100 % (25 marks)

E- Grading for by GPA System:

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

VI. List of references and resources:

- Course handout.
- Essential Books:
 - Research Methodology: A Step-by-Step Guide for Beginners 4th Edition. By: Ranjit Kumar. SAGE Publications Ltd. 2014.
 - Research Methodology: A Project Guide for University Students. By: John Kuada. AmazonUs/INDPB, 2012.
 - Fundamentals of Biostatistics 8th Edition. By: Bernard Rosner. Cengage Learning, 2015

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

Module Coordinator:

Name: Dr. Asmaa Sharaf

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Vertical Integration Module (3)

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title: Vertical Integration Module (3).

Department offering the Module: Family medicine

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

Academic year: 2nd Year

Semester: Semester III

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 1/2 / Longitudinal.

Teaching hours: 7.5 hours/ lectures

B- Professional Information

I – Aim of Module:

This module aims to provide the students with an early clinical exposure to common health problems, applying a holistic approach in clinical management with emphasis on disease prevention, health promotion and health education.

II – Learning Outcomes of the Module:



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Competency Area 1: The graduate

as a health care provider.

Key competency	Module LOs
1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	<p>1.8.1. Illustrate the approach of studying clinical cases in the form of cough, hypertension and obesity, identifying the significant data and interpret these data.</p> <p>1.8.2. Identify new medical terms in the context of case study activities.</p> <p>1.8.3. Illustrate the main ethical principles in dealing with patients and colleagues.</p>
1.9 Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).	<p>1.9.1. Retrieve the use of the recent information and communications technologies.</p> <p>1.9.2. Design a management plan based on evidence-based medicine.</p>
1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	<p>1.10.1 Interpret the clinical and laboratory data in the clinical scenarios to formulate a differential diagnosis.</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	<p>2.9.1 Apply infection control measures while dealing with patients</p>

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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>



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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 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 Demonstrate Respect the roles of other colleagues in patient care.
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. Work in a team evaluating his own and others workthrough constructive feedback. 5.2.2. Communicate respectfully and effectively with other colleagues

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 either 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:

Topic	Teaching Hours
Approach to problem solving applied to case of cough	0.5
Student presentation for the case (cough) according to physiology, pathology	0.5
Measure the respiratory rate according to pre-described guidelines	0.5
Student activity to assess the respiratory rate and describe it within its context	0.5
Approach to a case of hypertension from physiological and pharmacological view	0.5
Student participation according to physiology and pharmacology	0.5
Measure the blood pressure according to pre-described guidelines	0.5
Student activity to assess the blood pressure and describe it within its context	0.5
Approach to a case of obesity from biochemical and pathological view	0.5
Student participation according to biochemistry and pathology	0.5
Assess the obesity according to pre-described guidelines	0.5
Student activity to assess the obesity and describe it within its context	1
Revision	1
Total	7.5

IV- Teaching and learning methods

- Lectures for acquisition of knowledge: Two large groups, each group once /week
- Power Point Presentations: at lectures.
- Role Play, case studies, and problem solving.
- Field Trips: individual visits to the students` nearest healthcare facilities

V- Student Assessment:



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A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problemsolving

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments:

Final-term examination: 100 % (12.5 marks)

VI. List of references and resources:

- Lecture notes
- Essential Books:
- Case Files Family Medicine, Fourth Edition. By: Eugene Toy, Donald Briscoe, Bruce Britton, Joel John Heidelbaugh. McGraw Hill / Medical, 2016.

VII- Facilities required for teaching and learning:

- 7- Faculty Lecture halls
- 8- Faculty library for textbooks & electronic library for web search.
- 9- Audiovisual aids as boards, data show and computers.

Module Coordinator:

Prof. Dr. Hala Shahin

Program Coordinator:

Prof. Zeinab Kasemy

Semester IV

Gastrointestinal System

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title : Gastrointestinal System

Code No: GIT 2201

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

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

Academic year: 2nd Year

Semester: IV

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 8 credit hours/ 7 weeks

	Teaching hours		
	Lectures	Practical	Activities
Histology	9	13.5	27
Parasitology	9	13.5	27
Pathology	7.5	11.25	22.5
Anatomy	7.5	11.25	22.5
Physiology	6	9	18
Biochemistry	3	4.5	9
Pharmacology	3	4.5	9
Microbiology	3	4.5	9
Total	48	72	144

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, normal and abnormal microscopic structures, functions, disease patterns 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 honesty, integrity, commitment, compassion, and respect.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Describe the anatomy of gastrointestinal tract, liver, and pancreas.</p> <p>4.1.2. Describe the vasculatures of gastrointestinal tract and previously mentioned related organs.</p> <p>4.1.3. Identify the course, important relations, distribution and effect of injury of gastrointestinal blood vessels and biliary system.</p> <p>4.1.4. Recognize the anatomical basis of gastro-oesophageal reflux disease, appendicitis, cholecystitis, pancreatitis, and portal hypertension.</p> <p>4.1.5. Describe the normal development of gastrointestinal tract and its related organs and their congenital anomalies.</p> <p>4.1.6. Describe the basic histological structure of different parts of GIT.</p>

	<p>4.1.7. Distinguish structural features of organs, regions and cell types present in each part of GIT system.</p> <p>4.1.8. Identify the normal histological structure of various glands associated with GIT.</p> <p>4.1.9. Describe the mechanism of formation of the salivary secretion.</p> <p>4.1.10. Explain the differences in types of salivary secretion and function.</p> <p>4.1.11. Outline the phases of swallowing.</p> <p>4.1.12. Describe the process of gastric secretion, function of HCL, and gastric movement</p> <p>4.1.13. Identify the function, types, and control of secretion of pancreas.</p> <p>4.1.14. Describe the various composition of biliary secretion and function of gall bladder</p> <p>4.1.15. Name different types of jaundice and their manifestation</p> <p>4.1.16. Recognize the concept of intestinal absorption, intestinal motility and defecation reflex.</p> <p>4.1.17. Relate the anatomical knowledge with clinical signs seen in cases of portal hypertension.</p> <p>4.1.18. Correlate the blood supply of some organs and their structure and specialized functions.</p> <p>4.1.19. Illustrate the functional anatomy, the enteric nervous system and innervation of the GIT.</p> <p>4.1.20. Illustrate the course of common bile duct in relation to the surrounding structure.</p> <p>4.1.21. Relate the ultrastructure and function of different cell types in different parts and glands of GIT.</p> <p>4.1.22. Relate the histological structure of each organ to its specific functions.</p>
<p>4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.</p>	<p>4.2.1. List lipotropic factors.</p> <p>4.2.2. Identify the source and function of GIT enzymes.</p> <p>4.2.3. Enumerate tumor markers of GIT.</p> <p>4.2.4. Explain the role of liver in metabolism.</p> <p>4.2.5. Contrast metabolism of the liver in fed and fasting state.</p> <p>4.2.6. Relate factors regulating fat content of the liver and causes of fatty liver.</p> <p>4.2.7. Describe the biochemical tests used to assess the different functions of the liver.</p>
<p>4.5 Identify various causes (genetic, developmental,</p>	<p>4.5.1. Explain different gastrointestinal disease processes, their causes (etiology), and how the</p>



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metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).

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.



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

- 4.8.1. Examine the different regions of the abdomen.
- 4.8.2. Interpret 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 interpret 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.



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Competency Area 5: The graduate the health care system.

as a member of the health team and part of

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 Manage time and learning resources effectively. 6.6.2 Apply priority setting in the learning process

III- Module Contents:

Theoretical		
Topic	Teaching hours	Department
*Oral cavity (mouth, tongue, salivary glands, palate) and *Pharynx)	1.5	Anatomy
Oesophagus, *stomach, * and small intestine.	1.5	Anatomy
*Large intestine *Liver and *biliary system	1.5	Anatomy



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*Biliary system *Pancreas, * Blood supply of gastrointestinal tract.	1.5	Anatomy
Development of gastrointestinal tract.	1.5	Anatomy
Enzymology and tumour markers of GIT	1.5	Biochemistry
Role of liver in metabolism	1.5	Biochemistry
Histology of oral cavity	1.5	Histology
Histology of esophagus & 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, gall bladder and bile drainage	1.5	Histology
Gastroenteritis and food poisoning	1.5	Microbiology
Diarrheal Diseases	1.5	Microbiology
Hepatic Trematodes (Fasciola) Intestinal Trematodes (Heterophys)	1.5	Parasitology
Taenia - 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 Lambliia * Cryptosporidium	1.5	Parasitology
Oral Cavity and salivary glands	1	Pathology
Esophagus and stomach	1.5	Pathology
Diseases of small and large intestine	1.5	Pathology
Diseases of small and large intestine	1	Pathology
Diseases of the liver	1	Pathology
Diseases of the gall bladder, appendix, pancreas and peritoneum	1.5	Pathology
Peptic Ulcer and GERD	1.5	Pharmacology
Antiemetics	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 *The liver and biliary secretion	1.5	Physiology
Total	48	
Practical		
Topic	Teaching hours	Department
Oral cavity (Lip, tongue, papillae folliate) and Pharynx.	1.5	Anatomy



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Oesophagus and stomach	1.5	Anatomy
Intestine	1.5	Anatomy
Liver and biliary system	1.5	Anatomy
Pancreas, *peritoneum	1.5	Anatomy
Blood supply of GIT	1	Anatomy
Radiology	1.25	Anatomy
Revision	1.5	Anatomy
Liver functions test	1.5	Biochemistry
Estimation of AST and ALT	1.5	Biochemistry
Quiz and check list	1.5	Biochemistry
Lip, Tongue and papilla foliate	2	Histology
Esophagus dog, cat and GOJ	2	Histology
Fundus, Pylorus & PDJ	2	Histology
Duodenum, ileum, large intestine & appendix	2	Histology
Parotid gland, mixed salivary gland & pancreas	2	Histology
Human liver and gall bladder	2	Histology
Revision	1.5	Histology
Food-borne infection	2	Microbiology
Gastroenteritis - Diarrheal diseases - and hepatitis	2	Microbiology
Revision	0.5	Microbiology
Hepatic trematodes (Fasciola) Intestinal Trematodes (Heterophys)	2	Parasitology
Tenia Ascaris Lumbricoides	2	Parasitology
Hook Worms - Strongyloides Stercoralis	2	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
Oral cavity and salivary glands	1.75	Pathology
Stomach, small intestine	2	Pathology
large intestine	2	Pathology
Diseases of liver, gall bladder	2	Pathology
appendix, pancreas and peritoneum	1.5	Pathology
Revision	2	Pathology
Peptic ulcer	1.5	Pharmacology
Diarrhea	1.5	Pharmacology
Treatment of GIT infections	1.5	Pharmacology
Record of Intestinal Motility	2	Physiology
demonstration of autonomic receptors	2	Physiology
Gastric function tests	2	Physiology
liver function tests	2	Physiology

Revision	1	Physiology
Total	72	

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
- Skill Lab

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Scheule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	80	40%
Final Practical exam.	60	30%
Activities	60	30%
Total	200	100%

E- Grading for by GPA System:

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

VI. List of references and resources:

- **Lecture Notes of Module Departments**
- **Essential Books:**

Anatomy:

- Gray's Anatomy for Students. 3rd Edition. By: Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.

Histology:

- Junqueira's Basic Histology: Text and Atlas, 15th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2018.
- Wheater's Functional Histology, 6th Edition. By: Barbara Young, Geraldine O'Dowd, Phillip Woodford. Churchill Livingstone, 2014.
- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.

Biochemistry:

- Harper's Illustrated Biochemistry 31st Edition. By: Victor W. Rodwell, David Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil. McGraw Hill / Medical, 2018.
- Lippincott's Illustrated Reviews Biochemistry, 7TH Edition. By: Denise Ferrier. LWW, 2017.
- Textbook of Biochemistry with Clinical Correlations 7th Edition. By: Thomas M. Devlin. John Wiley & Sons, 2010.

Pathology:

- Robbins Basic Pathology (Robbins Pathology) 10th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2017.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 4th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2013

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.



- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013.

Microbiology:

- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.
- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- 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, 8th Edition. By: C. K. Jayaram Paniker. JP Medical Ltd, 2017
- 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



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Key Competencies & Module LOs

vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods					Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Skill Lab	Self-directed study	Formative Assessment		Summative Assessment				
							Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x							x		x
4.1	4.1.1 to 4.1.23	x	x			x	x		x		x	x	x
4.2	4.2.1, 4.2.7	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	4.7.1 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		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 Ahmed Gaifar

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Renal & Urinary system

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Renal & Urinary system

Code No: URIN 2202

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

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

Academic year/level: Second level

Semester: Semester IV

Date of specification: 2018.

Date of approval by Departmental Council: 2108

Date of approval by Faculty Council: 2108

Credit hours: 5 credit hours/ 4 weeks

	Teaching hours		
	Lectures	Practical	Activities
Anatomy	5.1	7.65	15.3
Histology	3	4.5	9
Biochemistry	3.9	5.85	11.7
Physiology	9	13.5	27
Pathology	6.6	9.9	19.8
Pharmacology	1.5	2.25	4.5
Microbiology	0.9	1.35	2.7
Total	30	45	90

- Professional Information

I – Aim of the Module:

To provide the students with basic knowledge and skills regarding the renal and urinary system including development, normal anatomy, congenital anomalies, normal and abnormal microscopic structure, disease patterns with their gross and microscopic pictures etiopathogenesis and fate, the



pharmacological basis of drugs action on the kidney and urinary tract, purine metabolism and its errors, and common microbiological infectious causing renal and urinary tract diseases.

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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module Los
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Outline the general organization of the urinary system.</p> <p>4.1.2. Illustrate the site, shape, surfaces, peritoneal coverings, and relations of the kidney.</p> <p>4.1.3. Illustrate the site, shape, surfaces, and relations of the ureter.</p> <p>4.1.4. Identify the site, shape, surfaces, peritoneal coverings, and relations of the ureter, urinary bladder and urethra.</p> <p>4.1.5. Identify anatomy of the kidneys regarding their shape, surfaces, hilum and borders</p> <p>4.1.6. Outline coverings and relations of the kidney.</p> <p>4.1.7. Identify blood supply, lymphatic drainage and</p>

nerve supply of the kidney.

- 4.1.8. Identify the surface anatomy of the kidney.
- 4.1.9. Differentiate between the relations, blood supply and lymphatic drainage of both kidneys.
- 4.1.10. Recognize length, course & relations of ureter.
- 4.1.11. Recognize the normal development of the kidney and ureter.
- 4.1.12. Identify blood supply, nerve supply & lymphatic drainage of ureter.
- 4.1.13. Enumerate and describe sites of ureteric stricture
- 4.1.14. Outline relations, blood supply, nerve supply & lymphatic drainage of urinary bladder and urethra
- 4.1.15. Differentiate between male and female urethra
- 4.1.16.** Differentiate between internal and external urethral sphincter.
- 4.1.17. Outline the structural characteristics of the Kidney.
- 4.1.18. Determine the relationship between the Kidney structure with the function.
- 4.1.19. Describe histological structure of blood renal barrier with reference to their function.
- 4.1.20. Identify structures that could be present in renin producing cells from its function
- 4.1.21. Name the cells lining Collecting tubules.
- 4.1.22. Describe the specific renal blood flow and mechanisms of its regulation.
- 4.1.23. Explain the mechanism of concentration and dilution of urine and the countercurrent exchanger and multiplier behind.
- 4.1.24. Discuss movement of important ions in renal tubules.
- 4.1.25. Explain the reflex of micturition.
- 4.1.26. Identify higher centres control of the brain for micturition.
- 4.1.27. Match clinical data and its relation to anatomical knowledge.
- 4.1.28. Construct the site and relations of the kidney, ureter, the urinary bladder and urethra.

<p>4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.</p>	<p>4.2.1. Define Non protein nitrogenous compounds.</p> <p>4.2.2. Describe different urinary crystals.</p> <p>4.2.3. Summarize the steps and regulatory mechanisms of synthesis, catabolism of purine.</p> <p>4.2.4. Identify the biochemical bases of the related metabolic disorders and their clinical application.</p> <p>4.2.5. Describe pyrimidine nucleotides synthesis and catabolism and related disorders.</p> <p>4.2.6. List the factors affecting the movement of the ions.</p> <p>4.2.7. Point out the clinical significance of determination of plasma levels of uric acid.</p>
<p>4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).</p>	<p>4.5.1. List the congenital anomalies of the kidney and ureter.</p> <p>4.5.2. Explain on embryological basis these congenital anomalies.</p> <p>4.5.3. Determine the development of the urethra and its congenital anomalies.</p> <p>4.5.4. Explain on embryological basis these congenital anomalies.</p> <p>4.5.5. Describe causes, pathogenesis, clinical, pathological pictures and complications of different types of acute glomerulonephritis.</p> <p>4.5.6. List the most important microorganism involved in urinary tract infections.</p>
<p>4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.</p>	<p>4.6.1. Outline different types of acute glomerulonephritis.</p> <p>4.6.2. Describe the causes, pathogenesis, clinical, pathological pictures, fate and complications of chronic glomerulonephritis.</p> <p>4.6.3. Identify the causes, pathogenesis, gross, microscopic pictures, fate and complications of tubulointerstitial diseases.</p> <p>4.6.4. Identify causes, pathogenesis, gross, microscopic pictures, fate and complications of different types of pyelonephritis</p>

		<p>4.6.5. Outline the causes, pathogenesis and types of urinary stones.</p> <p>4.6.6. Identify pathogenesis, gross, microscopic pictures, and spread of different types of bladder tumors.</p> <p>4.6.7. Predict the diagnosis of different urinary system diseases based on the underlying gross and microscopic pictures.</p> <p>4.6.8. Formulate a systematic approach for laboratory diagnosis of UTIs.</p>
<p>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.</p>		<p>4.7.1. Enumerate adverse effects, contraindications of different antimicrobials used for UTI treatment.</p> <p>4.7.2. Explain the mechanism of action, actions, clinical uses, adverse effects, and contraindications of osmotic diuretics, carbonic anhydrase inhibitors, loop diuretics, thiazides and potassium-sparing diuretics.</p> <p>4.7.3. Identify the indications of different drugs in UTI.</p> <p>4.7.4. Identify possible changes of plasma electrolytes and pH of the blood and urine caused by diuretics.</p> <p>4.7.5. Recognize the diseases of the kidney that must be taken into account when prescribing drugs that are eliminated by the kidney.</p> <p>4.7.6. describe different classes of diuretics: their sites and mode of actions, classification, adverse effects and uses in cardiac, hepatic, renal and other conditions.</p>

- 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. Differentiate normal and abnormal urine characters.
 - 4.8.2. Identify the physical and chemical characters of normal urine under different physiological condition.
 - 4.8.3. Identify the most important methods of specimen handling and principles of infection control.
 - 4.8.4. Interpret the radiologic aspects of congenital anomalies of the urinary tract.
 - 4.8.5. Interpret an ABG report.
 - 4.8.6. Interpret a pathology report about urinary system diseases.
 - 4.8.7. Interpret reports of urine analysis.
 - 4.8.8. Identify the site and relations of the kidney, ureter, the urinary bladder and urethra.
 - 4.8.9. Label dissected structures of the urinary system according to the present relations.
 - 4.8.10. Differentiate between the right and left kidney- internal and external urethral sphincter.
 - 4.8.11. Interpret CT and IVP to recognize the anatomical landmarks, common diseases related to the urinary system.
 - 4.8.12. Use the light microscope efficiently to obtain information from histological slides.
 - 4.8.13. Draw and label the structures they have seen under light microscope during practical classes.
 - 4.8.14. Differentiate the kidney vasculature by injected stain (Gelatin Carmine)
 - 4.8.15. Comment on urine specific gravity and differentiate its diluted and concentrated conditions.
 - 4.8.16. Measure pH of urine
 - 4.8.17. Use different laboratory techniques for handling pathologic samples, appropriate types of fixatives and processing techniques.
 - 4.8.18. Recognize gross and microscopic pictures aiming at reaching the correct diagnosis.
 - 4.8.19. Identify causative micro-organisms of urinary tract infections by microscopic examination, Culture character and Biochemical reaction.



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Competency Area 5: The graduate the health care system.

as a member of the health team and part of

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
6.3 Identify opportunities and use various resources for learning.	<p>6.3.1 Use information resources whether written or electronic efficiently for the educational process.</p>
6.6 Effectively manage learning time and resources and set priorities.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>

III- Module Contents:

Theoretical		
Topic	Teaching Hours	Department
Anatomy of the kidney	1.5	Anatomy
Anatomy of ureter & urinary bladder	1.5	Anatomy



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Anatomy of ureter, urinary bladder2 & urethra	1	Anatomy
Development of the urinary system	1.1	Anatomy
Normal & abnormal Constituents ofurine	1.5	Biochemistry
Chemistry and metabolism of purine	1	Biochemistry
Chemistry and metabolism ofpyrimidines	1.4	Biochemistry
Histological Structure of the kidney	1.5	Histology
Histological Structure of excretory passage of urinary system	1.5	Histology
Urinary tract infection	0.9	Microbiology
Congenital anomalies of the kidney +acute glomerulonephritis	2	Pathology
Chronic glomerulonephritis+ disease of tubules and interstitium	1.5	Pathology
Obstructive uropathies + kidney tumors	1.5	Pathology
Cystitis & bladder tumors	1.6	Pathology
Pharmacology of Diuretics	1.5	Pharmacology
Overview of renal functions	1.5	physiology
Formation of urine	1.5	Physiology
Tubular processing	1.5	Physiology
Renal handling of water & Na	1.5	physiology
Renal handling of K, glucose and Ca	1.5	Physiology
Acid base balance	1.5	physiology
Total	30	
Practical		
Topic	Teaching Hours	Department
Kidney, posterior abdominal wall	1.5	Anatomy
Ureter, urinary bladder & urethra	1.5	Anatomy
Revision	1.5	Anatomy
Revision	1.5	Anatomy
Kidney and ureter anatomy	1.65	Anatomy
Chemical composition of urine & urinestrips	1.5	Biochemistry
Kidney function tests except creatinine clearance	1.5	biochemistry
Creatinine clearance & urine report	1.5	biochemistry
Uric acid colorimetry & cases	1.35	Biochemistry
1-kidney (H&E) 2-Injected kidney	1.5	Histology



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Histological Structure of the kidney	1.5	Histology
1-urinary bladder 2-Ureter (practical).	1.5	histology
Urinary tract infection causes	1.35	Microbiology
Kidney jars	1.9	pathology
Kidney, bladder jars & data show	1.5	Pathology
Kidney, bladder jars & data show (1.5	Pathology
Kidney, bladder slides	1.5	Pathology
Revision	1.5	Pathology
Kidney, bladder	2	Pathology
Pharmacological aspects of Antimicrobials used for urinary infections.	1.25	Pharmacology
Alteration of urinary PH (online)	1	Pharmacology
Simple urine examination (urine analysis)	1.5	Physiology
Urine examination	1.5	Physiology
Specific gravity	1.5	Physiology
Abnormal constituent of urine	1.5	physiology
Abnormal constituent of urine (1.5	Physiology
Clearance	1.5	Physiology
Clearance	1.5	Physiology
Acid base balance	1.5	physiology
Acid base balance	1.5	physiology
Total	45	

IV– Teaching and learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

2. Practical Teaching: conducted using:

- Practical sessions

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes 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
Regular Evaluation	30%	10% written at the end of the module including problem-solving, multiple-choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, CBL, Research.	During the module
Final practical exam	30%	Data show Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple-choice questions, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	50	40%
Final Practical exam.	37.5	30%
Activities	37.5	30%
Total	125	100%



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E- Grading for by GPA System:

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

VI. List of references and resources:

- **Lecture Notes of Module Departments**
- **Essential Books:**

Anatomy:

- Gray's Anatomy for Students. 3rd Edition. By: Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.

Histology:

- Junqueira's Basic Histology: Text and Atlas, 15th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2018.
- Wheater's Functional Histology, 6th Edition. By: Barbara Young, Geraldine O'Dowd, Phillip Woodford. Churchill Livingstone, 2014.
- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.

Biochemistry:

- Harper's Illustrated Biochemistry 31st Edition. By: Victor W. Rodwell, David Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil. McGraw Hill / Medical, 2018.
- Lippincott's Illustrated Reviews Biochemistry, 7TH Edition. By: Denise Ferrier. LWW, 2017.
- Textbook of Biochemistry with Clinical Correlations 7th Edition. By: Thomas M. Devlin. John Wiley & Sons, 2010.



Pathology:



- Robbins Basic Pathology (Robbins Pathology) 10th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2017.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 4th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2013

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.
- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013.

Microbiology:

- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.
- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.28	x	x		x	x		x		x	x	x
4.2	4.2.1, 4.2.6	x	x		x	x		x		x	x	x
4.6	4.6.1 to 4.6.8	x	x		x	x		x		x	x	x
4.7	4.7.1 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

<u>Module Coordinator:</u>	<u>Program Coordinator:</u>
Name: Dr. Asmaa Ali Ahmed	Name: Prof. Dr. Zeinab Kasemy
Signature: Dr. Asmaa Ali Ahmed	Signature: Prof. Dr. Zeinab Kasemy

Reproductive system & Breast

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Reproductive System & Breast Module

Code No: REP/BR 2203

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

Program on which the course is given: M.B.B. Ch Program-(5+2) credit hours

Academic year: 2nd Year

Semester: IV

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 6 credit hours/ 5 weeks

	Teaching hours		
	Lectures	Practical	Activities
<i>Anatomy</i>	10.2	15.3	30.6
<i>Histology</i>	8.7	13.05	26.1
<i>Physiology</i>	5.7	8.55	17.1
<i>Pharmacology</i>	1.5	2.25	4.5
<i>Pathology</i>	5.7	8.55	17.1
<i>Microbiology</i>	1.2	1.8	3.6
<i>Parasitology</i>	3	4.5	9
Total	36	54	108

B- professional Information

I- Aim of the Module:



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This multidisciplinary module aims to integrate knowledge from various departments to enable students to comprehend the anatomical basics, histological characteristics, physiological processes, microbiological aspects, pathological conditions, and pharmacological interventions relevant to the reproductive system and breast health. Through a collaborative and comprehensive approach, this module aims to equip students with the theoretical foundation and practical skills essential for assessing, diagnosing, and managing reproductive and breast-related disorders effectively.

I- 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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Describe the shape, position, and of the female breast.</p> <p>4.1.2. List the blood supply and lymphatic drainage of the female breast.</p> <p>4.1.3. Explain the presence of skin dimpling, retracted nipple, fixed breast, and peau d'orange in cancer breast.</p> <p>4.1.4. Describe the development of the breast and its congenital anomalies.</p> <p>4.1.5. List the muscles forming the pelvic diaphragm and describe the origin, insertion, action and nerve supply of each.</p> <p>4.1.6. Describe the position, relations and vascular supply of the ovaries.</p>

- 4.1.7. Explain the cause of the pain, which is felt on the medial side of the thigh during ovulation
- 4.1.8. Describe the anatomy of the uterine tube regarding parts, function & vascular supply
- 4.1.9. Describe the pelvic peritoneum in females.
- 4.1.10. Describe the anatomy of the uterus regarding subdivisions, cavities, relations, ligaments, main support, and vascular supply.
- 4.1.11. Describe the anatomy of the vagina: position, fornices & vascular supply.
- 4.1.12. Describe perineum: boundaries & divisions
- 4.1.13. Name pouches of the urogenital triangle and contents of the pudendal canal.
- 4.1.14. Describe internal pudendal artery and pudendal nerve regarding origin, course & branches.
- 4.1.15. Enumerate structures piercing the perineal membrane
- 4.1.16. List boundaries and contents of deep and superficial perineal pouches
- 4.1.17. Describe stages of gonad genesis and their congenital anomalies
- 4.1.18. Differentiate between testes and ovaries development
- 4.1.19. Differentiate between the fate of mesonephric and paramesonephric ducts in males and females and describe their congenital anomalies
- 4.1.20. Describe the development of the external genitalia and their congenital anomalies
- 4.1.21. Describe the anatomy of the testis: coverings, structure, thermoregulatory mechanisms & vascular supply
- 4.1.22. Describe the anatomy of the spermatic cord: coverings & contents
- 4.1.23. Relate layers of the scrotum to layers of the anterior abdominal wall.
- 4.1.24. Describe anatomy of the prostate, epididymis, vas, seminal vesicles & ejaculatory ducts and explain the spread of cancer prostate to the vertebral column
- 4.1.25. Describe the anatomy of the penis: structure, nerve, and vascular supply.
- 4.1.26. Demonstrate the basic components of the male reproductive system and describe the basic histological structure of each component related to its functions.



- 4.1.27. List the types of cells present in the spermatogenic epithelium and their functions
- 4.1.28. List the types of tunicae present in the testis & Be able to identify the seminiferous tubules and cells present between it.
- 4.1.29. Compare between extra testicular and intratesticular ducts
- 4.1.30. Compare between vas deferens and ureter.
- 4.1.31. Describe the histological structure of the glands associated with the male reproductive system (seminal vesicles, prostate, bulbourethral glands and gland of littre) and its participation in semen formation.
- 4.1.32. Name the cellular and structural elements that form the blood-testis barrier.
- 4.1.33. Identify principal structure of the penis, its corpora, its blood supply and mechanism of erection.
- 4.1.34. List the normal parameters of semen.
- 4.1.35. Identify the different components of female reproductive systems
- 4.1.36. Identify the histological structure of the ovary
- 4.1.37. Identify the different types of ovarian follicles
- 4.1.38. Compare between different types of ovarian corpora
- 4.1.39. Describe the histological structure of fallopian tubes and its parts
- 4.1.40. Describe the histological changes of menstrual cycle and its relation with ovarian cycle
- 4.1.41. Identify the histological structure of vagina and effect of female hormones on it.
- 4.1.42. Describe parts of female external genitalia.
- 4.1.43. Identify histological structure of bartholin's glands.
- 4.1.44. Identify the histological structure of placenta, its formation and changes throughout pregnancy.
- 4.1.45. Identify histological structure of mammary glands before puberty, after puberty, lactating and non-lactating.
- 4.1.46. Describe the female sexual cycles and hormonal changes.
- 4.1.47. Identify placental functions and its hormones.
- 4.1.48. Describe the mechanisms of labor and factors regulating it.
- 4.1.49. Describe the control of spermatogenesis.

- 4.1.50. Integrate basic anatomical, histopathological and physiological aspects of the female; male reproductive system and breast.
- 4.1.51. Apply the anatomical facts while examining the living subject to reach a proper diagnosis.
- 4.1.52. Correlate between the different components of male reproductive system under the microscope, and functional and clinical criteria whenever possible.
- 4.1.53. Relate the histological structure of each part of male reproductive system to its specific functions.
- 4.1.54. Correlate between the different components of female reproductive system under the microscope, and the functional and clinical criteria whenever possible.
- 4.1.55. Relate the histological structure of the breast to its functions.
- 4.1.56. Relate the histological structure of each part of female reproductive system to its specific functions.
- 4.1.57. Interpret changes at both Puberty and Menopause.
- 4.1.58. Analyse the difference between ovulatory cycles from non-ovulatory cycles.
- 4.1.59. Apply the physiological actions of hormones to reach a proper diagnosis in case of physiological abnormalities
- 4.1.60. Analyze the difference between different actions of male and female sex hormones.
- 4.1.61. Integrate basic interaction of normal flora and immunity of genital tract

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| 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 M(pathogenesis). | <ol style="list-style-type: none"> 4.5.1. Explain different disease processes encountered in the reproductive system, their causes (etiology), and how the disease develops in response to the etiologic agents (pathogenesis). 4.5.2. Recognize the most important microorganisms and involved in reproductive system infections. 4.5.3. Describe the most important methods of specimen handling and principles of infection control. 4.5.4. Describe various aspects of parasites of medical |
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		importance concerning its geographical distribution, morphology and life cycles.
	4.5.5.	Discuss the pathogenesis of parasitic infections and the relation of the stage of the life cycle to pathogenesis and the clinical signs and symptoms.
	4.5.6.	Describe the common arthropods of medical interest and explain their medical importance and the methods of combating.
	4.5.7.	Analyze theoretical information to select the most appropriate diagnosis from differential diagnosis for a given case.
4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. Describe characteristic gross and microscopic pictures of different pathologic lesions within specific organ systems and the associated functional disturbances.</p> <p>4.6.2. Determine the fate and complications of different disease processes.</p> <p>4.6.3. Mention clinical presentations and the complications of parasitic diseases.</p> <p>4.6.4. Describe the conventional and up to date diagnostic laboratory methods to reach the accurate diagnosis of most common parasitic diseases.</p> <p>4.6.5. Interpret a pathology report of Reproductive system & Breast diseases.</p> <p>4.6.6. Predict the diagnosis of different Reproductive system & Breast diseases based on the underlying gross and microscopic pictures.</p>

<p>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.</p>	<p>4.7.1. Enumerate the therapeutic indications of Estrogen receptor modulators, antiestrogens and antiprogesterone.</p> <p>4.7.2. Mention the methods of treatment of sexually transmitted diseases.</p> <p>4.7.3. List drugs acting on the uterus.</p> <p>4.7.4. Determine the effective therapeutic drugs and its doses in treating each parasitic infection.</p> <p>4.7.5. Determine the methods used for prevention and control of the most common parasites in the community.</p> <p>4.7.6. Apply the basic pharmacological data while management the living subject in order to reach a proper treatment of reproductive system diseases.</p> <p>4.7.7. Recognize different classes of contraceptive pills: mode of actions, classification, adverse effects and any other uses than contraception.</p> <p>4.7.8. Identify possible changes of uterine contractions by tocolytics and ecbolics.</p> <p>4.7.9. Formulate a treatment plan for the sexually transmitted diseases and how to avoid serious complications.</p>
<p>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.</p>	<p>4.8.1. Identify dissected specimens for the organs of the reproductive system and breast.</p> <p>4.8.2. Interpret X-rays and Label diagrams showing different male and female reproductive systems.</p> <p>4.8.3. Examine breast and different lymph node groups.</p> <p>4.8.4. Differentiate between types of tissues and organs in histological slides.</p> <p>4.8.5. Draw and label the structures they have seen under light microscope during practical classes.</p> <p>4.8.6. Perform pregnancy test and interpret its results.</p> <p>4.8.7. Use different laboratory techniques for handling pathologic samples, appropriate types of fixatives and processing techniques.</p> <p>4.8.8. Recognize gross and microscopic pictures aiming at reaching the correct diagnosis.</p> <p>4.8.9. Identify causative micro-organisms of sexually transmitted infections by microscopic examination, culture character and Biochemical reaction.</p> <p>4.8.10. Draw parasites in their different stages specially the</p>

diagnostic and infective stages through examination of microscopic slides.

4.8.11. Identify some parasites or their stages

4.8.12. Examine mounted slides or boxes to identify the most important arthropods of medical interest.

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>



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III- Module Contents:

THEORETICAL		
TOPIC	TEACHING HOURS	DEPARTMENT
Anatomy of Breast, blood supply, lymphatic drainage. Pelvic diaphragm	1.5	Anatomy
Ovary (anatomy, blood supply, peritoneal covering) and uterus 1	1.5	Anatomy
Uterus 2& vagina (anatomy, blood supply) & perineal pouches	1.5	Anatomy
embryology of female reproductive system	1.5	Anatomy
Scrotum & Testis (anatomy, blood supply and lymphatics, clinical notes).	1.5	Anatomy
Vas, epididymis, seminal vesicle, ejaculatory ducts, prostate, penis (anatomy, blood supply, clinical notes)	1.5	Anatomy
Embryology of male reproductive system	1.2	Anatomy
Female genital system (Ovary)	1.5	Histology
Female genital system (Fallopian tube – Uterus – vagina)	1.5	Histology
Mammary gland (Resting – Lactating) - Placenta	1.5	Histology
Resting and lactating mammary gland Placenta	1	Histology
Male genital system (Testis and epididymis)	1	histology
Male genital system (Accessory gland; ext. genitalia) - Prostate, penis and penile urethra	2.2	Histology
Bacterial vaginosis Pelvic inflammatory disease (PID) Diseases transmitted from mother to foetus by breast feeding and by genital tract.	1.2	Microbiology
Toxoplasma and phyrus pubis	1.5	Parasitology
Trichomonus vaginalis, Scabis and Mite transmitted parasite.	1.5	Parasitology
Female genital tract infection and abnormal uterine bleeding	1.5	Pathology
Pathology of female genital tract tumors	1.2	Pathology
Pathogenesis of breast inflammatory and neoplastic lesions.	1.5	Pathology
- Causes (etiology), and pathogenesis of Prostatic and testicular lesions. - Fate and complications of the of Prostatic lesions.	1.5	Pathology
Pharmacology of female sex hormones and contraception	1.5	Pharmacology
Oogenesis ,female sexual cycles (ovarian & endometrial)	1	Physiology
Female sexual cycles (ovarian & endometrial)	1.2	Physiology



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- Endocrinal functions of the ovary - Fertilization, implantation & functions of placenta	1.2	Physiology
-Parturition, lactation, menopause -Testicular functions ®ulation of spermatogenesis	1.2	Physiology
Endocrinal functions of the testis, semen and puberty (male & female).	1.1	Physiology
Total Hours	36	
PRACTICAL		
TOPIC	TEACHING HOURS	DEPARTMENT
Pelvic diaphragm	2.75	Anatomy
Breast and Ovary	2.55	Anatomy
Uterus , uterine tube & vagina	2	Anatomy
Male reproductive organs	2	Anatomy
Radiology	2	Anatomy
Revision	2	Anatomy
Revision	2	Anatomy
Female genital system (Ovary Fallopian tube – Uterus – vagina)	1.5	Histology
-Placenta-Mammary gland	3	Histology
-Male genital system (Testes)	3	Histology
Epididymis, vas deferens, spermatic cord and the penis	2.55	Histology
Revision	3	Histology
Cases and assignments on Bacterial and Viral causes of sexually transmitted diseases	1.8	Microbiology
Toxoplasma and phyrus pubis	2	Parasitology
Trichomonus vaginalis, Scabis and Mite transmitted parasite.	2.5	Parasitology
Endometrial changes (secretory and proliferative), Endometrial hyperplasia, squamous cell carcinoma cervix	2	Pathology
Dermoid cyst, Mucinous cystadenoma, Brenner tumour.	2.55	Pathology
FCD of breast, Fibroadenoma, invasive duct carcinoma	2	Pathology
Nodular prostatic hyperplasia, Seminoma	2	Pathology
Uterine Stimulants & relaxants	1	Pharmacology
Sexually transmitted diseases	1.25	Pharmacology
Pregnancy tests	2.55	Physiology
Birth control methods	3	Physiology
Semen analysis report	3	Physiology
Total	54	

IV– Teaching and learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

2. Practical Teaching: conducted using:

- Practical sessions
- Skill Lab

3. Self-directed Learning

VI- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment methods and schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, Research.	During the module



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Final practical exam	30%	OSPE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, give a reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	55	40%
Final Practical exam.	41.25	30%
Activities	41.25	30%
Total	137.5	100%

E- Grading by GPA System:

The Percentage	Symbols	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. 3rd Edition. By: Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.



Histology:



- Junqueira's Basic Histology: Text and Atlas, 15th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2018.
- Wheater's Functional Histology, 6th Edition. By: Barbara Young, Geraldine O'Dowd, Phillip Woodford. Churchill Livingstone, 2014.
- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.

Pathology:

- Robbins Basic Pathology (Robbins Pathology) 10th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2017.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 4th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2013

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.
- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013.

Microbiology:

- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.
- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- 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, 8th Edition. By: C. K. Jayaram Paniker. JP Medical Ltd, 2017
- Clinical Parasitology, 2nd Edition. By: Elizabeth Zeibig. Saunders, 2012.

VII Facilities required for teaching and learning:

1. Lecture halls at the faculty
2. Dissecting room, including bones and plastic models
3. Museum specimens
4. Visual aids
5. Labs equipped with microscopes
6. Microscopic slides of demonstration of samples of tissue

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods					Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Skill Lab	Self-directed study	Formative Assessment		Summative Assessment				
							Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x							x		x
4.1	4.1.1 to 4.1.61	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 4.6.6	x	x			x	x		x		x	x	x
4.7	4.7.1 to 4.7.9	x	x			x	x		x		x	x	x
4.8	4.8.1 to 4.8.12			x	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. Eman Aboelyazed

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Vertical Integration Module (4)

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title : Vertical Integration Module (4)

Department offering the Module: Family medicine department

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

Academic year : 2nd Year

Semester: IV

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by Faculty Council: 3/2018

Credit hours 1/2 credit hours (Longitudinal).

Teaching Hours: 7.5 hours/ Lectures

B- Professional Information

1 – Aim of Module:

This module aims to provide the students with an early clinical exposure o to commonhealth problems, applying a holistic approach in clinical management with emphasis on disease prevention, health promotion and health education.

II – Learning Outcomes of the Module (LOs):

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

Key competency	Module LOs
1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	<p>1.8.1. Illustrate the approach of studying clinical cases in the form of irritable bowel syndrome, delayed puberty, urinary tract infection, identifying the significant data and interpret these data.</p> <p>1.8.2. Identify new medical terms in the context of case study activities.</p>

	1.8.3. Illustrate the main ethical principles in dealing with patients and colleagues.
1.9 Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).	1.9.1. Retrieve the use of the recent information and communications technologies. 1.9.2. Design a management plan based on evidence-based medicine.
1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	1.10.1 Interpret the clinical and laboratory data in the clinical scenarios to formulate a differential diagnosis.

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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



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Competency Area 5: The graduate the health care system.

as a member of the health team and part of

Key competency	Module LOs
5.1 Recognize the important role played by other health care professionals in patients' management.	5.1.1 Demonstrate Respect the roles of other colleagues in patient care.
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. Work in a team evaluating his own and others workthrough constructive feedback. 5.2.2. Communicate respectfully and effectively with other colleagues

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 either 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



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III- Module Contents:

Topic	Teaching Hours
Case presentation (role play) for irritable bowel syndrome	0.5
An approach to a case of irritable bowel syndrome from anatomical view	0.5
An approach to a case of irritable bowel syndrome from pathological view	0.5
An approach to a case of irritable bowel syndrome from pharmacological view	0.5
Case study for delayed puberty	0.5
An approach to a case of delayed puberty from physiological view	0.5
An approach to a case of delayed puberty from pathological view	0.5
An approach to a case of delayed puberty from pharmacological view	0.5
Case presentation (role play with urinalysis report) for urinary tract infection	0.5
An approach to a case of urinary tract infection from pathological view	0.5
An approach to a case of urinary tract infection from pharmacological view	0.5
Designing and discussing case from the student surrounding community	0.75
Designing and discussing case from the student surrounding community	0.75
Revision	1
Total	7.5

IV- Teaching and learning methods

- Lectures for acquisition of knowledge: Two large groups, each group once /week
- Power Point Presentations: at lectures.
- Role Play, case studies, and problem solving.
- Field Trips: individual visits to the students` nearest healthcare facilities

V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problemsolving



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C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments:

- Final-term examination: 100 % (12.5 marks)

VI. List of references and resources:

- Lecture notes
- Essential Books:
- Case Files Family Medicine, Fourth Edition. By: Eugene Toy, Donald Briscoe, Bruce Britton, Joel John Heidelbaugh. McGraw Hill / Medical, 2016.

VII- Facilities required for teaching and learning:

- 10- Faculty Lecture halls
- 11- Faculty library for textbooks & electronic library for web search.
- 12- Audiovisual aids as boards, data show and computers.

<u>Module Coordinator:</u> Name: Prof. Dr. Hala Shahin	<u>Program Coordinator:</u> Name: Prof. Zeinab Kasemy
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Semester V

Endocrine

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Endocrine

Code No: ENDO 3101

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

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

Academic year/level: Third level

Semester: Semester V

Date of specification: 2018.

Date of approval by Departmental Council: 2018.

Date of approval by Faculty Council: 2018.

Credit hours: 6 credit hours/ 5 weeks

	Teaching hours		
	Lectures	Practical	Activities
Anatomy	6	9	18
Histology	3	4.5	9
Physiology	16.5	24.75	49.5
Biochemistry	3	4.5	9
Pathology	1.5	2.25	4.5
Pharmacology	6	9	18
Total	36	54	108

- Professional Information

1 – Aim of Module:

This module aims to integrate knowledge and practical skills from various departments to enable



students to comprehend the anatomical basics, histological characteristics, physiological processes, biochemical reactions, pathological conditions, and pharmacological interventions relevant to the endocrine system including pituitary, thyroid, and adrenal glands, and insulin secretion from the pancreas. These knowledge and skills are essential for future clinical practice and patient care regarding assessment, diagnosis, and management of endocrine disorders effectively

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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Distinguish between endocrine and exocrine glands.</p> <p>4.1.2. Identify the major endocrinal glands in the human body.</p> <p>4.1.3. Identify the location of pituitary gland and its way of attachment to the brain.</p> <p>4.1.4. Explain the division of the pituitary gland to lobes and the important relations and blood supply of each lobe.</p> <p>4.1.5. Distinguish the embryonic origin of pituitary gland & hypothalamus.</p> <p>4.1.6. Describe the shape and position of the thyroid and parathyroid glands.</p> <p>4.1.7. Recognize the important relations of the thyroid and parathyroid glands.</p>

- 4.1.8. Describe the blood supply and lymph drainage of the thyroid and parathyroid glands.
- 4.1.9. Discuss the surgical importance of the thyroid and parathyroid glands.
- 4.1.10. Distinguish the embryonic origin of each gland of thyroid and parathyroid.
- 4.1.11. Describe the shape, position, and relations of the adrenal gland.
- 4.1.12. Describe the blood supply of the adrenal gland.
- 4.1.13. Recall the site, relations of the pineal gland.
- 4.1.14. Describe classification of hormones
- 4.1.15. Explain mechanism of hormonal action.
- 4.1.16. List different types of hormone receptors.
- 4.1.17. Describe the mechanism of action of type II hormones.
- 4.1.18. Demonstrate location of pituitary gland inside its bony bed and its relations to the surroundings.
- 4.1.19. Identify the insulin receptor and mechanism of insulin release.
- 4.1.20. Describe the physiological action of insulin hormone and the mechanism behind it.
- 4.1.21. Describe the pattern of insulin secretion and recognize factors stimulating and inhibits its secretion.
- 4.1.22. Explain the physiological action of glucagon and the control of its secretion.
- 4.1.23. Explain the physiological action and control of secretion of glucagon hormone.
- 4.1.24. Recognize the two ways of hypothalamohypophyseal connections.
- 4.1.25. Enumerate the anterior pituitary hormones and hypothalamic hormones affecting their release.
- 4.1.26. Describe the physiological action of growth hormone and prolactin, and Explain the control of their secretion.
- 4.1.27. Describe the action of oxytocin hormone and control of its secretion.

- 4.1.28. Outline the hormones secreted from thyroid gland.
- 4.1.29. Describe the physiological effects of iodinated thyroid hormones.
- 4.1.30. Identify the control of iodinated thyroid hormones.
- 4.1.31. Explain the role of calcium in physiological processes and distribution of calcium in the body.
- 4.1.32. Explain the integrated role of the endocrine glands in calcium homeostasis.
- 4.1.33. Describe the action of parathyroid hormone on bones, kidneys and intestine.
- 4.1.34. Define the role of thyrocalcitonin in calcium regulation.
- 4.1.35. Describe the action of vitamin D3 and its mechanism of action and control of its secretion.
- 4.1.36. Explain the physiological actions of mineralocorticoids and factors affecting their secretion.
- 4.1.37. Describe the action of corticosteroids.
- 4.1.38. Recognize the control of secretion of corticosteroids.
- 4.1.39. Describe the action of adrenal androgens.
- 4.1.40. Recognize the endocrine function of pineal gland
- 4.1.41. Explain the regulation system of melatonin secretion.
- 4.1.42. Identify the antioxidant activity of melatonin hormone and its role in immunity and reproductive function.
- 4.1.43. Describe the endocrine function of adipose tissue and thymus gland.
- 4.1.44. Distinguish between physiological and pathological performance of endocrinal pancreas.
- 4.1.45. Identify physiological scientific measurements used to test Glucose tolerance
- 4.1.46. Distinguish between physiological and pathological performance of pituitary gland.
- 4.1.47. Identify physiological scientific measurements used to test Pituitary gland functions

		<p>4.1.48. Distinguish between physiological and pathological performance of thyroid gland .</p> <p>4.1.49. Identify physiological scientific measurements used to test Thyroid gland functions.</p> <p>4.1.50. Distinguish between physiological and pathological performance of parathyroid gland.</p> <p>4.1.51. Distinguish between physiological and pathological performance of suprarenal cortex.</p> <p>4.1.52. Identify physiological scientific measurements used to test Adrenal functions</p> <p>4.1.53. Integrate basic anatomical data with clinical data.</p> <p>4.1.54. Correlate student's knowledge in embryology with clinical findings caused by errors in development.</p> <p>4.1.55. Interpret the normal anatomical structures on radiographs</p> <p>4.1.56. Outline endocrine hormones secreted from other glands or tissues</p>
4.2	Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	<p>4.2.1. Differentiate between type I and II diabetes mellitus.</p> <p>4.2.2. Compare between different preparations of insulin. Explain adverse effects of insulin</p> <p>4.2.3. Describe the mechanism of insulin resistance List antidiabetic drugs.</p> <p>4.2.4. Interpret biochemical causes of hypo and hyperthyroidism.</p> <p>4.2.5. Interpret biochemical causes of hypo and hyper secretion of insulin and glucagon hormones.</p> <p>4.2.6. Interpret biochemical causes of hypo and hyper secretion of pituitary hormones.</p>



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<p>4.3 Recognize and describe main developmental changes in humans and the effect of growth, development and aging on the individual and his family.</p>	<p>4.3.1. List the congenital anomalies of hypothalamus and pituitary glands.</p> <p>4.3.2. List the congenital anomalies of thyroid and parathyroid glands.</p> <p>4.3.3. Discuss pituitary dwarfism.</p> <p>4.3.4. Describe pituitary infantilism, cause and manifestations.</p> <p>4.3.5. Identify causes of panhypopituitarism and its manifestations.</p> <p>4.3.6. Describe adiposogenital syndrome.</p> <p>4.3.7. Differentiate gigantism and acromegaly in terms of their causes and manifestations.</p> <p>4.3.8. Describe secondary aldosteronism.</p> <p>4.3.9. Outline the manifestations of Cushing's syndrome.</p> <p>4.3.10. Describe Addison's disease.</p> <p>4.3.11. Recognize adrenogenital syndrome.</p>
<p>4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).</p>	<p>4.5.1. List the causes of goiter</p> <p>4.5.2. Differentiate between different types of thyroiditis</p> <p>4.5.3. Enumerate and identify different types of thyroid tumors including predisposing factors, presentation, gross and microscopic picture</p> <p>4.5.4. Outline the causes and classification of diabetes mellitus.</p>
<p>4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.</p>	<p>4.6.1. Identify pathogenesis, types , presentation, complications of diabetes mellitus.</p> <p>4.6.2. Describe the manifestations and complications of diabetes mellitus.</p> <p>4.6.3. Describe hypoglycemia and its management.</p> <p>4.6.4. Identify some disorders of ADH secretion as diabetes insipidus.</p> <p>4.6.5. Explain pathogenesis and presentation of different types of goiter including gross, microscopic picture and complications.</p>

- 4.6.6. Describe the pathogenesis, gross picture, microscopic picture and complications of different types of thyroiditis
- 4.6.7. Describe active vitamin D3 deficiency.
- 4.6.8. Describe causes and manifestations of both primary and secondary hyperparathyroidism.
- 4.6.9. Outline different causes, types and manifestations of tetany.
- 4.6.10. Identify provocative tests for latent tetany.
- 4.6.11. Describe the biochemical bases of clinical manifestations of selected diseases due to hormonal dysfunction
- 4.6.12. Identify congenital thyroid abnormality as thyroglossal cyst.
- 4.6.13. Discuss pituitary dwarfism.
- 4.6.14. Describe pituitary infantilism, cause and manifestations.
- 4.6.15. Identify causes of panhypopituitarism and its manifestations.
- 4.6.16. Describe adiposogenital syndrome.
- 4.6.17. Differentiate gigantism and acromegaly in terms of their causes and manifestations.
- 4.6.18. Describe the manifestations of primary aldosteronism and its concept of treatment..

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 pharmacology of insulin secretagogues.
- 4.7.2. Describe the pharmacology of alpha-glucosidase inhibitors.
- 4.7.3. Describe the pharmacology of the new antidiabetic agents.
- 4.7.4. List drugs used in treatment of hypothyroidism
- 4.7.5. List drugs used in treatment of hyperthyroidism.
- 4.7.6. Describe the pharmacology of antithyroid drugs.
- 4.7.7. Classify corticosteroid preparations
- 4.7.8. Describe mechanism of action and therapeutic uses of corticosteroids
- 4.7.9. Describe pharmacology of vitamin D, parathyroid hormone and calcitonin Discuss the drugs used in treatment of osteoporosis

		4.7.10. Identify the uses and side effects of different antidiabetic drugs and how to manage
		4.7.11. Outline treatment of hyper or hypothyroid cases
		4.7.12. Identify treatment of Cushing's disease
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.	<p>4.8.1. Differentiate the normal anatomical structures on plane radiographs and ultrasonography.</p> <p>4.8.2. Demonstrate thyroid and parathyroid glands on cadavers or plastic models with identification of their blood and nerve supply.</p> <p>4.8.3. Interpret the results of tests for glucose tolerance</p> <p>4.8.4. Interpret the results of tests for pituitary hormones.</p> <p>4.8.5. Interpret the results of thyroid functions test</p> <p>4.8.6. Interpret the results of free and ionized calcium levels.</p> <p>4.8.7. Interpret the results of adrenal hormones tests</p> <p>4.8.8. Examine and identify microscopic findings of colloid goiter, toxic goiter and papillary thyroid carcinoma.</p>

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>



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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
Anatomy and development of hypothalamus and pituitary gland	1.5	Anatomy
Anatomy of thyroid gland	1.5	Anatomy
Anatomy of parathyroid gland, development of thyroid and parathyroid glands	1.5	Anatomy
Anatomy and development of suprarenal gland and anatomy of pineal Body	1.5	Anatomy
Histology of pituitary gland and pineal body	1.5	Histology
Histology of thyroid, parathyroid and suprarenal glands	1.5	Histology
Classification and mechanism of action of hormones	1.5	Biochemistry
Biochemistry of thyroid and pancreatic hormones	1.5	Biochemistry
Insulin and glucagon hormones	1.5	Physiology
Somatostatin and disorders of endocrine pancreas	1.5	Physiology
Anterior pituitary	1.5	Physiology
Abnormalities of growth hormone secretion	1.5	Physiology
Posterior pituitary.	1.5	Physiology
Thyroid gland	1.5	Physiology



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Calcium homeostasis	1.5	Physiology
Disorders of calcium regulation	1.5	Physiology
Adrenal hormones	1.5	Physiology
Disorders of adrenal functions	1.5	Physiology
Pineal gland and endocrine thymus & adipose tissue	1.5	Physiology
Antidiabetic drugs (Insulin)	1	Pharmacology
Oral antidiabetic drugs	1	Pharmacology
Thyroid hormones and antithyroid drugs	1.5	Pharmacology
Corticosteroids	1.5	Pharmacology
Drugs affecting Calcium metabolism	1	Pharmacology
Thyroid gland and Diabetes Mellitus	1.5	Pathology
Total Hours	36	
PRACTICAL		
TOPIC	TEACHING HOURS	DEPARTMENT
Hypothalamus-pituitary gland	3	Anatomy
Thyroid and parathyroid	1.5	Anatomy
Adrenal gland and pineal body	1.5	Anatomy
Revision	3	Anatomy
Histology of pituitary gland	1.5	Histology
Histology of thyroid, parathyroid and suprarenal glands	1.5	Histology
Revision	1.5	Histology
Biochemical causes of hypo and hyper secretion of thyroid and pancreatic hormones	1.5	Biochemistry
Biochemical causes of hypo and hyper secretion of pituitary hormones	1.5	Biochemistry
Radioimmunoassay and Immunofluorescence	1.5	Biochemistry
Diabetes mellitus and Tests for glucose tolerance	6	Physiology
Short stature and diabetes insipidus	6	Physiology
Thyroid functions test	4.5	Physiology
Calcium homeostasis	4.25	Physiology
Adrenal functions test	4	Physiology
Case of Diabetes	2	Pharmacology
case of hyper and hypothyroidism	3	Pharmacology
Case on corticosteroid use	2	Pharmacology
Case of osteoporosis	2	Pharmacology
Thyroid gland pathology	2.25	Pathology
Total	54	

IV– Teaching and learning Methods:

1. Theoretical Teaching:



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a) **Interactive lectures:** using

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

b) **Case Based learning**

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

- Practical sessions

3. **Self-directed Learning**

VI- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

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



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

Method of Assessment	Marks	Percentage
Final Written exam.	55	40%
Final Practical exam.	41.25	30%
Activities	41.25	30%
Total	137.5	100%

E- Grading by GPA System:

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

VI. List of references and resources:

Lecture Notes of Module Departments

References:

Anatomy:

- Gray's Anatomy for Students. 3rd Edition. By: Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.



Histology:



- Junqueira's Basic Histology: Text and Atlas, 15th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2018.
- Wheater's Functional Histology, 6th Edition. By: Barbara Young, Geraldine O'Dowd, Phillip Woodford. Churchill Livingstone, 2014.
- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.

Biochemistry:

- Harper's Illustrated Biochemistry 31st Edition. By: Victor W. Rodwell, David Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil. McGraw Hill / Medical, 2018.
- Lippincott's Illustrated Reviews Biochemistry, 7TH Edition. By: Denise Ferrier. LWW, 2017.
- Textbook of Biochemistry with Clinical Correlations 7th Edition. By: Thomas M. Devlin. John Wiley & Sons, 2010.

Pathology:

- Robbins Basic Pathology (Robbins Pathology) 10th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2017.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 4th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2013

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.
- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013.

Microbiology:

- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.
- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- 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, 8th Edition. By: C. K. Jayaram Paniker. JP Medical Ltd, 2017
- Clinical Parasitology, 2nd Edition. By: Elizabeth Zeibig. Saunders, 2012.

VII- Facilities required for teaching and learning:

- 1- Faculty Lecture halls



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- 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.56	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 4.3.11	x	x		x	x		x		x	x	x
4.5	4.5.1 to 4.5.4	x	x		x	x		x		x	x	x
4.6	4.6.1 to 4.6.18	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 4.8.8			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. Mona Abdelhamied Kora

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

CNS & Special Senses (I)

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: CNS& Special Senses (1)

Code No: CNS/SPI3102

Department offering the course: Anatomy, Physiology, Pharmacology and Microbiology

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

Academic year: Third year

Semester: V

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Total hours: 5 credit hours / 5 weeks.

	Teaching hours		
	Lectures	Practical	Activities
<i>Anatomy</i>	15	22.5	45
<i>Physiology</i>	9	13.5	27
<i>Pharmacology</i>	5.1	7.65	15.3
<i>Microbiology</i>	0.9	1.35	2.7
Total	30	45	90

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,



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pharmacological interventions, and microbial infections 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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Identify the anatomical landmarks of the cranial cavity</p> <p>4.1.2. Describe the anatomy of the cerebral cortex including white and grey matter.</p> <p>4.1.3. Identify the anatomical details of the basal Gang., diencephalon & limbic system</p> <p>4.1.4. Describe the anatomy of the cerebellum</p> <p>4.1.5. Identify the divisions of the brain stems and its included nuclei and tracts</p> <p>4.1.6. Outline the ventricular system including CSF formation and drainage</p> <p>4.1.7. Identify different meningeal coverings of the brain.</p> <p>4.1.8. Describe the anatomy of the spinal cord and its included tracts</p> <p>4.1.9. Outline the blood supply of the brain and spinal cord Bl. supply of brain</p> <p>4.1.10. Determine the normal development of CNS, ear and eyeball and their congenital anomalies</p> <p>4.1.11. Describe the anatomy and development of the ear</p> <p>4.1.12. Describe the anatomy of the orbit and development of the eye</p>

		<p>4.1.13. Classify receptors according to their location, function, morphology, and adequate stimulus.</p> <p>4.1.14. Describe the physiology of the optical system of the eye and the mechanism of vision</p> <p>4.1.15. Interpret the anatomical and physiological knowledge with clinical signs seen in cases of Parkinsonism, ataxia, and strokes.</p> <p>4.1.16. Explain and describe the image formation by the eye.</p>
4.5	Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1. Recognize the most important microorganisms causing meningitis, and encephalitis.</p>
4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. Classify disorders of visual acuity</p> <p>4.6.2. Identify different disorders of color vision.</p>
4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.3. Identify pathogenesis, types , presentation, complications of diabetes mellitus.</p> <p>4.6.4. Describe the manifestations and complications of diabetes mellitus.</p> <p>4.6.5. Describe hypoglycemia and its management.</p> <p>4.6.6. Identify some disorders of ADH secretion as diabetes insipidus.</p> <p>4.6.7. Explain pathogenesis and presentation of different types of goiter including gross, microscopic picture and complications.</p> <p>4.6.8. Describe the pathogenesis, gross picture, microscopic picture and complications of different types of thyroiditis</p> <p>4.6.9. Describe active vitamin D3 deficiency.</p> <p>4.6.10. Describe causes and manifestations of both primary and secondary hyperparathyroidism.</p> <p>4.6.11. Outline different causes, types and manifestations of tetany.</p> <p>4.6.12. Identify provocative tests for latent tetany.</p> <p>4.6.13. Describe the biochemical bases of clinical manifestations of selected diseases due to hormonal dysfunction</p>



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		<p>4.6.14. Identify congenital thyroid abnormality as thyroglossal cyst.</p> <p>4.6.15. Discuss pituitary dwarfism.</p> <p>4.6.16. Describe pituitary infantilism, cause and manifestations.</p> <p>4.6.17. Identify causes of panhypopituitarism and its manifestations.</p> <p>4.6.18. Describe adiposogenital syndrome.</p> <p>4.6.19. Differentiate gigantism and acromegaly in terms of their causes and manifestations.</p> <p>4.6.20. Describe the manifestations of primary aldosteronism and its concept of treatment..</p>
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.	<p>4.7.1. Explain pharmacology of drugs used in treatment of various diseases of CNS and drugs acting on the eye.</p> <p>4.7.2. Explain the main pharmacokinetics & adverse effects of carbamazepine, phenytoin & valproate.</p> <p>4.7.3. List the adverse effects of chlorpromazine, clozapine, haloperidol, thioridazine, and ziprasidone</p> <p>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.</p> <p>4.7.5. Design the clinical uses & identify adverse effects of major antiparkinsonian agents.</p> <p>4.7.6. Design for plane of management of status epilepticus.</p>
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.	<p>4.8.1. Identify dissected specimens or plastic models of the cerebral cortex, cerebellum, brain stem, and spinal cord.</p> <p>4.8.2. Sketch diagrams for different parts of the central nervous system.</p> <p>4.8.3. Demonstrate testing color vision.</p> <p>4.8.4. Demonstrate uses of ophthalmoscope.</p> <p>4.8.5. Examine the visual field.</p> <p>4.8.6. Identify causative micro-organisms of CNS infections by microscopic examination, Culture character and Biochemical reaction.</p> <p>4.8.7. Interpret brain angiography to recognize the anatomical landmarks, common diseases related to the central nervous system.</p>

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>



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III. Module Contents:

Theoretical		
Topic	Teaching hours	Department
Cranial cavity and cerebral cortex1	1.5	Anatomy
Cerebral cortex 1,2& white mater	1.5	Anatomy
Basal Gang., diencephalon & limbic system	1.5	Anatomy
Anatomy of the cerebellum	1.5	Anatomy
Anatomy of brain stem 1&2	1.5	Anatomy
Brain stem 2, 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
Receptors & general classification of sensation & nerve physiology	1.5	Physiology
Fluid & optical system of the eye	1.5	Physiology
Cornea & lens	1.5	Physiology
Uveal tract & retina	1.5	Physiology
Mechanism of vision	1.5	Physiology
Visual pathway & visual cortex	1.5	Physiology
Sedative hypnotics	1.1	Pharmacology
Opioid analgesics	0.75	Pharmacology
Antiepileptics	1	Pharmacology
Antidepressants and antipsychotics	0.75	Pharmacology
Anti-parkinsonian Drugs	0.75	Pharmacology
Local anesthetics	0.75	Pharmacology
CNS infections	0.9	Microbiology
Total	30	
Practical		
Topic	Teaching hours	Department
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
Visual acuity & astigmatism & near point	2.7	Physiology
Blind spot & fundus examination with ophthalmoscope	2.7	Physiology



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Colour vision	2.7	Physiology
Near response & light reflex	2.7	Physiology
Visual field & Revision	2.7	Physiology
Drugs acting on the eye	1.5	Pharmacology
Epilepsy	1.5	Pharmacology
Headache	1.5	Pharmacology
Parkinsonism	1.5	Pharmacology
Meningitis	1.65	Pharmacology
Practical cases on infections of CNS	1.35	Microbiology
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. Practical Teaching: conducted using:

- Practical sessions

3. Self-directed Learning

VI- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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



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C- Summative Assessment

methods and schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	55	40%
Final Practical exam.	41.25	30%
Activities	41.25	30%
Total	137.5	100%

E- Grading by GPA System:

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

VI. List of references and resources:

- Lecture Notes of Module Departments
- Essential Books:

- Gray's Anatomy for Students. 3rd Edition. By: Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.
- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013.

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- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.
- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- 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



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Key Competencies & Module LOs

vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods				Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.16	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 4.6.2	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 4.8.7			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. Fatma Hamed Shailan**

Program Coordinator:

Name: **Prof. Dr. Zeinab Kasemy**

Central nervous system and special senses II

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Central nervous system and special senses II

Code No: CNS/SPII 3103

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

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

Academic year/level: Third level

Semester: Semester V

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by faculty council: 2018

Total ours: 5 credit hours./ 5 weeks

	Teaching hours		
	Lectures	Practical	Activities
Histology	2.1	3.15	6.3
Physiology	18	27	54
Biochemistry	5.4	8.1	16.2
Pathology	2.1	3.15	6.3
Parasitology	2.4	3.6	7.2
Total	30	45	90

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. The module also provides the students with basics of molecular biology. These knowledge and



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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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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.	<p>4.1.1. Recognize the basic histological structure and characteristics of each eye coat.</p> <p>4.1.2. Identify the basic histological structure of lens, aqueous humor & vitreous humor.</p> <p>4.1.3. Identify the basic histological structure of eyelid & lacrimal gland.</p> <p>4.1.4. Describe the functional capabilities of each component & tissue type of the eye and relate them to their structure.</p> <p>4.1.5. Identify the basic histological structure of the external ear.</p> <p>4.1.6. Recognize the basic histological structure of the middle ear.</p> <p>4.1.7. Identify the basic histological structure of the inner ear.</p>

- 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. Recognize the functional basis of the vestibular apparatus and its role in maintaining equilibrium.
- 4.1.11. Describe the function of the outer, middle and inner ear structures in the mechano-electrical transduction process of sound energy into nerve impulses.
- 4.1.12. Recognize the location and structure of thermo-receptors.
- 4.1.13. Describe afferent pathways of temperature.
- 4.1.14. Recognize the cutaneous and proprioceptive mechanoreceptors.
- 4.1.15. Identify cutaneous and proprioceptive mechanoreceptors.
- 4.1.16. pathways and functions.
- 4.1.17. Recognize the location and structure of pain receptors.
- 4.1.18. Describe afferent pathways of pain sensation.
- 4.1.19. Describe coding for sensations.
- 4.1.20. Recognize the somatic sensations from the head and their pathways.
- 4.1.21. Identify the location and functions of different areas of sensory cortex.
- 4.1.22. Identify the functional basis of lower motor neurons in the spinal cord and brainstem.
- 4.1.23. Describe the anatomical location, function, and afferent neurotransmission of muscle spindle and Golgi tendon organs.
- 4.1.24. Identify the function and pathways of the pyramidal and extrapyramidal tracts to its lesion.
- 4.1.25. Relate the function and location of the basal ganglia to its lesion.
- 4.1.26. Describe the functions and location of the cerebellum and relate it to its lesions.
- 4.1.27. Describe the intellectual function of the brain as memory learning and language.

	<ul style="list-style-type: none">4.1.28. Outline its integration with the ANS.4.1.29. Integrate basic histological, physiological, biochemical, pathological and parasitological data with clinical data.4.1.30. Relate the histological structure of eye and ear to its specific functions and employ these data with clinical cases whenever possible.4.1.31. Integrate the physiological functions of CNS and special sense organs with other basic and clinical sciences.4.1.32. Interpret the electrical activity of the brain.4.1.33. Relate the functions of hypothalamus to body homeostasis.
4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	<ul style="list-style-type: none">4.2.1. Describe the biochemical functions of nucleotides.4.2.2. Recognize purines and pyrimidine bases and their nucleotides.4.2.3. Define syn and anti-conformers.4.2.4. Identify the structure of DNA.4.2.5. Describe the structure, function and types of RNA.4.2.6. Differentiate between DNA and RNA structure.4.2.7. Define replication.4.2.8. Identify replication steps.4.2.9. Identify the components of replication fork.4.2.10. Describe the different techniques of DNA repair.4.2.11. Identify defects in repair system.4.2.12. Define transcription.4.2.13. Distinguish differences between replication and transcription.4.2.14. Identify steps of transcription.4.2.15. Recognize post-transcriptional modifications.4.2.16. Define genetic code.4.2.17. Recognize the characteristics of genetic code.4.2.18. Describe mechanism of amino acyl tRNA binding.4.2.19. Interpret the results of DNA products after gel electrophoresis.



- 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 volvulus* 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 volvulus* and *Dracunculus medinensis* to different parasitic stages.
 - 4.5.18. Describe clinical symptoms and signs of *Loa loa*, *Onchocercus volvulus* and *Dracunculus medinensis* infections.

- 4.5.19. Describe diagnostic methods of Loa loa, Onchocercus volvulus and Dracunculus medinensis infections.
- 4.5.20. Outline treatment of Loa loa, Onchocercus volvulus and Dracunculus medinensis infections.
- 4.5.21. Conclude methods of prevention and control of Loa loa, Onchocercus volvulus 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.
- 4.6.9. Correlate defects in DNA repair system and clinical diseases.
- 4.6.10. Evaluate the applications of DNA transcription and replication in the medical field.



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- 4.8** Demonstrate basic sciences specific practical skills and procedures relevant to future practice, recognizing their scientific basis, and interpret common diagnostic modalities, including: imaging, electrocardiograms, laboratory assays, pathologic studies, and functional assessment tests.
- 4.8.1. 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. Identify how to use PCR instruments and describe the principal of them.
 - 4.8.21. Perform pipetting technique.
 - 4.8.22. Examine and identify gross and microscopic findings of meningioma.
 - 4.8.23. Identify microscopic findings of plexiform neurofibroma and schwannoma.
 - 4.8.24. Recognize microscopic findings of Glioblastoma and brain metastatic carcinoma.

- 4.8.25. Examine different microscopic slides of parasites affecting CNS and special sense organs.
- 4.8.26. Illustrate different parasitic stages mainly the diagnostic and infective stages.
- 4.8.27. Perform thin and thick blood films.
- 4.8.28. Illustrate diagnostic parts of flies' larvae.
- 4.8.29. Use swabs to take samples of free-living amoebae.
- 4.8.30. Interpret a pathology report of some CNS diseases.
- 4.8.31. 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 responsibilities and engaging in shared decision-making for effective patient management.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
6.3	



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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
Nucleotide chemistry and DNA structure	1.5	Biochemistry
DNA replication	1.5	Biochemistry
DNA repair and transcription	1.5	Biochemistry
Genetic code and protein synthesis	0.9	Biochemistry
Histology of the eye	1	Histology
Histology of the ear	1.1	Histology
Trypanosomes, CLM, and <i>Dracunculus</i>	1.4	Parasitology
Free living amoebae, <i>Loa loa</i> , and <i>Onchocercus</i>	1	Parasitology
Inflammatory and vascular CNS diseases	1.1	Pathology
Tumours of CNS	1	Pathology
Motor function of spinal cord.	1.5	Physiology
Motor cortex.	1.5	Physiology
Pyramidal and extrapyramidal & internal capsule.	1.5	Physiology
Brain stem, posture, and equilibrium	1.5	Physiology
Sensory cortex	1.5	Physiology
Pain sensation	1.5	Physiology
Coding of sensation & head Sensation	1.5	Physiology
Mechano- and thermos-receptive sensations	1.5	Physiology
Hearing, smell, and taste	1.5	Physiology
Memory and learning	1.5	Physiology
Sleep and speech	1.5	Physiology
Basal ganglion and cerebellum.	1.5	Physiology
Total	30	
PRACTICAL		
TOPIC	TEACHING HOURS	DEPARTMENT
DNA extraction	2	Biochemistry
PCR	2	Biochemistry
Cloning	2	Biochemistry



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Gel electrophoresis	2.1	Biochemistry
Eyeball	1.5	Histology
Organ of Corti	1.65	Histology
<i>Trypanosoma</i> and Coenurosis	2	Parasitology
Myasis and free-living amoebae	1.6	Parasitology
CNS tumours	1.5	Pathology
Peripheral nerve sheath tumours, Meningioma, and metastatic tumours	1.65	Pathology
Hearing tests	3	Physiology
Smell and Taste examination	3	Physiology
Crude mechanoreceptive sensation	3	Physiology
Fine mechanoreceptive sensation and thermal sensation	3	Physiology
Pain	3	Physiology
Revision	1.5	Physiology
Examination of muscle tone, power, and state	3	Physiology
Superficial and deep reflexes	3	Physiology
Gait and muscle coordination	3	Physiology
Revision	1.5	Physiology
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. Practical Teaching: conducted using:

- Practical sessions

3. Self-directed Learning

VI- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

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

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

C- Summative Assessment methods and schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	55	40%
Final Practical exam.	41.25	30%
Activities	41.25	30%
Total	137.5	100%

E- Grading by GPA System:

The Percentage	Symbo l	Grade
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> 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:

Physiology:

- Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition. By: John E. Hall. Saunders, 2015.
- Ganong's Review of Medical Physiology 25th Edition. By: NA. McGraw-Hill Medical, 2015.
- Physiology (Lippincott's Illustrated Reviews Series) 1st Edition. By: Robin R Preston, Thad Wilson, Richard A. Harvey. Lippincott Williams & Wilkins, 2012.

Histology:

- Junqueira's Basic Histology: Text and Atlas, 15th Edition. By: Anthony L. Mescher. McGraw Hill / Medical, 2018.
- Wheater's Functional Histology, 6th Edition. By: Barbara Young, Geraldine O'Dowd, Phillip Woodford. Churchill Livingstone, 2014.
- diFiore's Atlas of Histology with Functional Correlations, 12th Edition. BY: Victor P. Eroschenko. Lippincott Williams & Wilkins, 2012.

Biochemistry:

- Harper's Illustrated Biochemistry 31st Edition. By: Victor W. Rodwell, David Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil. McGraw Hill / Medical, 2018.
- Lippincott's Illustrated Reviews Biochemistry, 7TH Edition. By: Denise Ferrier. LWW, 2017.
- Textbook of Biochemistry with Clinical Correlations 7th Edition. By: Thomas M. Devlin. John Wiley & Sons, 2010.

Pathology:

- Robbins Basic Pathology (Robbins Pathology) 10th Edition. By: Vinay Kumar, Abul K. Abbas, Jon C. Aster. Elsevier, 2017.
- Pathology Illustrated, 8th Edition. By: Peter S. Macfarlane, Robin Reid, Robin Callander. Churchill Livingstone, 2018.
- Diagnostic histopathology of tumors, 4th Edition. By: Christopher D. M. Fletcher. Saunders/Elsevier, 2013

Parasitology:

- Foundations of Parasitology. 10th Edition. By: Larry Roberts, John Janovy, Steven Adler. McGraw-Hill Education, 2015.
- Paniker's Textbook of Medical Parasitology, 8th Edition. By: C. K. Jayaram Paniker. JP Medical Ltd, 2017



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- 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
								Theoretical	practical	Written	OSPE	Assignments
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.33	x	x		x	x		x		x	x	x
4.2	4.2.1, 4.2.19	x	x		x	x		x		x	x	x
4.5	4.5.1 -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
4.8	4.8.1 to 4.8.31			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:

Name: Dr. Noha Ahmed AboKhalil

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Basic life support Module

University: Menoufia

Faculty: Medicine

A-Administrative information

Code Title: basic life support Module

Code No: BLS 3104

Department offering the Module : Emergency Medicine Unit - General Surgery Department

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

Academic year/level: Third level

Semester: Semester V

Date of specification: 2018

Date of approval by Department Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 1 credit hour

Teaching hours			
	Lectures	Practical	Activities
<i>Emergency Department</i>	6	9	18

B- Professional Information

I. Aim of the Module:

To provide the students with knowledge and skills and hands-on experience to act when a cardiac arrest occurs.



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II – Learning Outcomes of the

Module:

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

Key competency	Module LOs
1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	1.15.1 Identity the meaning of s cardiopulmonary resuscitation 1.15.2 Outline the basic life support guidelines 1.15.3. Recognize cardiac arrest 1.15.4. Identify the Automated External Defibrillator device (AED) 1.15.5. Outline the differences in pediatric basic life support 1.15.6. Interpret the significance of vital signs of the patient 1.15.7. Analyze the clinical situation to reach the cause of cardiac arrest 1.15.8. Formulate a management plan for a collapsed patient. 1.15.9. Check the response of the collapsed patient 1.15.10. Put the patient in the recovery position 1.15.11. Check the safety of him and the patient 1.15.12. Apply Open the airway technique 1.15.13. Apply Look, listen & feel technique 1.15.14. Perform CPR technique 1.15.15. Apply the AED 1.15.16. Apply the principles of continuous medical education. 1.15.17. Work in a systematic approach. 1.15.18. Work with other healthcare providers (EMS) in the management of cardiac arrest cases.

III- Module Contents:

Theoretical	
Topic	Teaching hours
Basic life support- Be a lifesaver- The ability to recognize cardiac arrest	2
Getting help from the emergency medical service (EMS)	1
How to apply high-quality chest compressions	1
How to apply rescue breaths	1
Automated External Defibrillator device (AED)	1
Total	6
Clinical Rounds	
Topic	Teaching Hours
Basic life support workshop 1	1
Basic life support workshop 2	2
Basic life support workshop 3	2
Basic life support workshop 4	2
Basic life support workshop 5	2
Total	9

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 workshops in skill lab

V- Student Assessment:

A. Attendance criteria:

The minimally acceptable attendance is 75% (mixed online and face-to-face) Students who fail to attend that percentage of activities will not be allowed to sit for the final written examination.

B. Types of Assessment:

1-Formative assessment exams: Held usually at regular intervals

2-Summative examination: at the end of the module and the end of the semester log book for activities

C- Summative Assessment methods and schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of periodicals including problem-solving, multiple choice questions, give a reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, and 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, giving a reason, matching, extended matching, completing and comparing.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	10	40%
Final Practical exam.	7.5	30%
Activities	7.5	30%
Total	25	100%

E- Grading for by GPA System:

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

VI. List of references and resources:

- Module handout.
- Essential Books:

American Heart Association- Basic Life Support (BLS) Provider Manual

VII- Facilities required for teaching and learning:

- 1- Faculty Lecture halls
- 2- Skill lab.
- 3- Audiovisual aids as boards, data show and computers

Module Coordinator:

Name: Dr Eman Hegazy

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Vertical Integration Module (5)

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title : Vertical Integration Module (5)

Department offering the Module: Anatomy department

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

Academic year : 3rd Year

Semester: V

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by Faculty Council: 2018

Credit hours 1/2 credit hours.

Teaching hours: 7.5 hours/ Lectures

- Professional Information

I- Aim of Module:

This module aims to provide the students with an early clinical exposure to common health problems, applying a holistic approach in clinical management with emphasis on disease prevention, health promotion and health education.

II – Learning Outcomes:

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

Key competency	Module LOs
1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	<p>1.8.1. Illustrate the approach of studying clinical cases of the thyroid gland, pituitary gland, basal ganglia, and meninges identify the significant data and interpret these data.</p> <p>1.8.2. Identify new medical terms in the context of case study activities.</p> <p>1.8.3. Illustrate the main ethical principles in dealing with patients and colleagues.</p>

1.9 Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).	1.9.1 Retrieve the use of the recent information and communications technologies. 1.9.2 Design a management plan based on evidence-based medicine.
1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	1.10.1. Interpret the clinical and laboratory data in the clinical scenarios to formulate a differential diagnosis.

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

Key competency	Module LOs
5.1 Recognize the important role played by other health care professionals in patients' management.	5.1.1 Demonstrate respect the roles of other colleagues in patient care.
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. Work in a team evaluating his own and others work through constructive feedback. 5.2.2. Communicate respectfully and effectively with other colleagues

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 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 Demonstrate Respect the roles of other colleagues in patient care.
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. Work in a team evaluating his own and others workthrough constructive feedback. 5.2.2. Communicate respectfully and effectively with other colleagues

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 either 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:

Lectures:

Topic	Teaching Hours
Thyroid gland integrated lecture	1.5
Pituitary gland integrated lecture	1.5
Ocular muscles and their nerve supply	1.5
Meninges and CSF	1.5
Basal ganglia	1.5
Total	7.5

IV– Teaching and learning methods

The following teaching / learning methods are used to promote better Explaining:

- **Interactive Lectures/online**
- **Self-directed learning**
- **Interactive lectures:** In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying topic through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.
- **Self-directed learning:** Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problemsolving

C- Assessment schedule: Final examination: Final-term assessment at the end of the semester by written examination.



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D- Weighting of assessments: Final-term examination: 100 % (12.5 marks)

VI. List of references and resources:

- Lecture notes
- Case Files Family Medicine, Fourth Edition. By: Eugene Toy, Donald Briscoe, Bruce Britton, Joel John Heidelbaugh. McGraw Hill / Medical, 2016.

Anatomy:

- Gray's Anatomy for Students. 3rd Edition. By: Richard Drake, A. Wayne Vogl, Adam W. M. Mitchell. Churchill Livingstone; 2014
- Langman's Medical Embryology, 13th Edition. By: T.W. Sadler. Williams and Wilkins; 2016
- Grant's Atlas of Anatomy 14th Edition. By: Anne M. R. Agur, Arthur F. Dalley II. LWW; 2016

Pharmacology:

- Basic and Clinical Pharmacology 14th Edition 14th Edition. By: Bertram Katzung. McGraw Hill / Medical, 2017.
- Lippincott's Illustrated Reviews: Pharmacology, 5th edition. By: Michelle A. Clark, Richard Finkel, Jose A. Rey, Karen Whalen, Richard A. Harvey (Editor). Lippincott Williams & Wilkins, 2011.
- Essentials of Medical Pharmacology 7th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2013.

Microbiology:

- Review of medical microbiology and immunology, 13th Edition. By: Levinson, Warren. The McGraw-Hill Companies, 2016.
- Review of medical microbiology, 27th Edition. By: Jawetz EM, Adelberg IL. Lange, 2016.
- Manual of Practical Microbiology & Immunology, 10th edition. By: El mishad AM. El-Ahram Press, 2014.

VII- Facilities required for teaching and learning:

- 13- Faculty Lecture halls
- 14- Faculty library for textbooks & electronic library for web search.
- 15- Audiovisual aids as boards, data show and computers.

Program Coordinator:

Name: Prof. Zeinab Kasemy

Signature: Prof. Zeinab Kasemy

Semester VI



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Basic Clinical Examination

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Basic Clinical Examination

Code No: BME 3201

Department offering the Module: Internal medicine, family medicine and general surgery departments

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

Academic year: 3rd Year

Semester: VI

Date of specification: 2018

Date of approval by Departments Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 2.5 hours/ 2 weeks

	Teaching hours		
	Lectures	Practical	Activities
Internal Medicine	6	9	18
General Surgery	6	9	18
Family Medicine	3	4.5	9
Total	15	22.5	45

B- Professional information

I- Aim of the Module

This module aims to enable the students to obtain an accurate, basic history from the patient and perform a rational, thorough physical examination for medical and surgical case while demonstrating communication skills such as active listening and acknowledgement, building rapport, information gathering, and appropriate use of open and closed questions.

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.	<p>1.1.1. Conduct history taking including social and psychological history</p> <p>1.1.2. Apply proper communication skills with patient through different steps of the interview.</p> <p>1.1.3. Practice patient education during interview with the patient</p> <p>1.1.4. Demonstrate appropriate basic behavior for a clinical medical student.</p> <p>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.</p> <p>1.1.6. Demonstrate and apply knowledge of the presentation/s to support inclusion in a differential diagnosis.</p> <p>1.1.7. Practice genogram drawing</p> <p>1.1.8. Demonstrate respect to patient's rights throughout the interview</p> <p>1.1.9. Practice fulfilling data of family health record</p> <p>1.1.10. Apply professional attire, general looking and hygiene</p> <p>1.1.11. Establish patients' trust and confidentiality</p> <p>1.1.12. Interpret family health record</p> <p>1.1.13. Analyze ethical dilemmas in relation to the principles of medical ethics.</p>
1.2 Adopt an empathic and holistic approach to the patients and their problems.	<p>1.2.1. Demonstrate empathy in patient consultation</p> <p>1.2.2. Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities.</p> <p>1.2.3. Apply the ethics of medical practice when dealing with patients and colleagues.</p> <p>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.</p>

	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.	<p>1.4.1 perform proper general examination</p> <p>1.4.2. Interpret common physical signs in a clinical encounter</p> <p>1.4.3. Examine a swelling and an ulcer in a surgical patient.</p> <p>1.4.4. Perform clinical abdominal examination.</p> <p>1.4.5. Examine different groups of lymph nodes in a patient</p> <p>1.4.6. Relate clinical findings to common surgical diseases such as swelling and ulcers</p> <p>1.4.7. Demonstrate how to examine an ulcer in general.</p> <p>1.4.8. Apply proper infection control when dealing with patients</p>
1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1 Apply priority setting while formulating a differential diagnosis for a clinical case.
1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<p>1.7.1. Use information from the history, physical examination to create a problem list</p> <p>1.7.2. Analyze common presentations of medical and surgical diseases as pain, fever, edema, jaundice, dyspepsia, vomiting, diarrhea and constipation.</p> <p>1.7.3. Work with other healthcare professionals in management of undiagnosed cases.</p> <p>1.7.4. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.5. Communicate effectively through feedback to help evaluate his own and others work.</p>

<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Define and outline basic categories of history taking</p> <p>1.8.2. Identify steps of general and systemic clinical examination</p> <p>1.8.3. Describe basic settings of clinical interview in surgical practice.</p> <p>1.8.4. Identify steps of clinical abdominal examination.</p> <p>1.8.5. Differentiate common causes of generalized lymphadenopathy.</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. Interpret findings from history and examination to recognize the presentation</p> <p>1.10.2. Interpret common patients' presentations in surgical practice.</p>
<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up-to-date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p>

Competency Area 2: The graduate as a health promoter.

Key competency	Module LOs
2.5 Describe the principles of disease prevention, and empower communities, specific groups or individuals by raising their awareness and building their capacity.	2.5.1 Recognize the importance and principles of patient education. 2.5.2 List the role of physician in infection control. 2.5.3 Recognize the principles of effective patient physician communication
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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
5.10 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.	5.10.1 Recognize the importance of family health record and list their types. 5.10.2 Identify elements of family genogram 5.10.3 Describe the definition and principles of biomedical ethics

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 either 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



Menoufia Faculty of Medicine

**III. Module Contents:**

Theoretical		
Topic	Teaching Hours	Department
General Examination: -	3.5	Internal Medicine
Local (systemic) examination	0.5	Internal Medicine
Reporting History and Examination	2	Internal Medicine
History taking	1	Family Medicine
Patient education	0.5	Family Medicine
Patient compliance	0.5	Family Medicine
Infection control measures	0.5	Family Medicine
Medical ethics	0.5	Family Medicine
Introduction to clinical practice in surgery	1	General Surgery
History taking of common surgical presentations	1	General Surgery
Swellings surgical practice	1	General Surgery
Ulcers in surgical practice	1	General Surgery
Principles of abdominal examination	1	General Surgery
Lymphadenopathy	1	General Surgery
Total	15	
Practical		
Topic	Teaching Hour	Department
General physical examination concepts.	1	Internal Medicine
General appearance.	1	Internal Medicine
Decubitus	1	Internal Medicine
Body built	1	Internal Medicine
Special color (pallor, jaundice, cyanosis)	1	Internal Medicine
vital signs including blood pressure, pulse, respirations, and temperature	1	Internal Medicine
head examination (including eye, face, mouth, nose)	1	Internal Medicine
neck examination (neck vessels, trachea, thyroid, LN)	1	Internal Medicine
detailed upper and lower examination)	1	Internal Medicine
History taking (Concepts, Personal history taking, Complaint, Present history, Past history, Drug history, Social history , Family history)	1.5	Family Medicine
Patient interview (Conduct interview, History taking, Infection control measures)	1	Family Medicine
Family health record	1	Family Medicine
Genogram	1	Family Medicine
Introduction to clinical practice in surgery	1	General Surgery
History taking of common surgical presentations	1	General Surgery

Swellings surgical practice	1	General Surgery
Ulcers in surgical practice	1	General Surgery
Principles of abdominal examination	1	General Surgery
Lymphadenopathy	1	General Surgery
Total	22.5	

IV- Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- Summative Assessment methods and Schedule

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	25	40%
Final Practical exam.	18.75	30%
Activities	18.75	30%
Total	62.5	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.**
- **Textbooks:**
 - 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

- Oxford Handbook of Clinical Surgery (Oxford Medical Handbooks) 4th Edition. By: Greg McLatchie, Neil Borley, Joanna Chikwe. Oxford University Press, 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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods						Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Self-directed study	Formative Assessment		Summative Assessment				
								Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.13					x			x		x	x		x
1.2	1.2.1 to 1.2.5			x		x			x		x			x
1.4	1.4.1 to 1.4.8					x			x		x	x		x
1.5	1.5.1	x	x	x	x	x	x	x	x	X	x		x	x
1.7	1.7.1 to 1.7.5			x		x		x		X				
1.8	1.8.1 to 1.8.5	x	x	x	x		x	x		X		x	x	x
1.10	1.10.1, 1.10.2			x	x	x	x	x	x	X	x		x	x
1.13	1.13.1 to 1.13.7			x		x	x	x	x	X	x		x	
2.5	2.5.1 to 2.5.3	x	x	x		x		x	x	X	x	x		x
2.9	2.9.1					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		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 Ahmes Saied ElKelany

Program Coordinator: Prof. Dr. Zeinab Kasemy

Dermatology

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Dermatology

Code No: DERMA 3202

Department offering the Module: Dermatology

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

Academic year/level: Third level

Semester: Semester VI

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by faculty council: 2018

Total hours: 2 credit hours/ 2 weeks

	Teaching hours		
	Lectures	Practical	Activities
<i>Dermatology</i>	12	18	36

B- Professional Information

I. Aim of the Module:

To provide the students with basic knowledge and clinical skills regarding the common dermatological diseases and their management with emphasis on disease prevention and cost effectiveness .



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 a comprehensive history taking. 1.1.2. Practice patient education during interview with the patient 1.1.3. Demonstrate appropriate basic behavior for a clinical medical student. 1.1.4. Record and present a basic history from a patient. 1.1.5. Demonstrate and apply knowledge of the presentation/s to support inclusion in a differential diagnosis.
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. 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.	1.4.1. Perform clinical examination for Diagnosis of the different types of nonspecific bacterial infection. 1.4.2. Perform clinical examination of different types of parasitic infection. 1.4.3. Perform clinical examination for different types of allergic skin diseases. 1.4.4. Perform hair pull test in case of hair disorders. 1.4.5. Apply proper infection control when dealing with patients 1.4.6. Interpret the clinical signs of different dermatological cases. 1.4.7. Apply the ethics of medical practice when examining patients.
1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1. Apply priority setting while formulating a differential diagnosis for a dermatologic case.

<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>	<p>1.6.1. Select the proper investigations for different dermatologic cases.</p> <p>1.6.2. Interpret the findings of basic investigations of dermatologic cases.</p> <p>1.6.3. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p>
<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Follow the guidelines in choosing the proper investigations for a dermatologic case.</p> <p>1.7.2. Interpret the laboratory results for different dermatologic cases.</p>
<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Describe normal structure and function of the skin and skin appendages.</p> <p>1.8.2. Outline types of nonspecific bacterial infections with their clinical picture and treatment</p> <p>1.8.3. Classify clinical types of specific bacterial infections with their clinical picture and treatment</p> <p>1.8.4. Describe different types of fungal infections of the skin with their clinical types and treatment</p> <p>1.8.5. Recognize viral infections of the skin with their clinical picture and management.</p> <p>1.8.6. Outline different types of parasitic infections with their clinical picture and treatment</p> <p>1.8.7. Describe pathogenesis, differential diagnosis and treatment of different allergic skin disorders</p> <p>1.8.8. Outline pathogenesis, differential diagnosis and treatment of different Papulosquamous disorders</p> <p>1.8.9. Discuss disorders of different skin appendages with their management.</p> <p>1.8.10. Define disorders of pigmentation with their management.</p> <p>1.8.11. Describe different autoimmune diseases of the skin with their differential diagnosis and management.</p> <p>1.8.12. Describe the differential diagnosis of different skin diseases</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. Coordinate the clinical data and investigations to reach the proper diagnosis and appropriate management plan for non-specific bacterial infection.</p> <p>1.10.2. Integrate the clinical data obtained from history, clinical examination and investigations to reach the proper diagnosis and construct an appropriate management plan for specific bacterial infection.</p>

	<p>1.10.3. Interpret the clinical data and investigations for the proper diagnosis and treatment for fungal infection.</p> <p>1.10.4. Analyze the clinical data obtained from history, examination and investigations to reach the proper treatment for viral infection.</p> <p>1.10.5. Relate the clinical data with investigations to diagnose and construct an appropriate management plan for parasitic infection.</p> <p>1.10.6. Organize the clinical data obtained from history, clinical examination and investigations to reach the proper diagnosis and treatment for allergic skin diseases.</p> <p>1.10.7. Coordinate history, clinical examination and investigations to reach the proper diagnosis and construct an appropriate management plan for papulo-squamous skin diseases.</p> <p>1.10.8. Integrate the clinical data and investigations to reach the proper diagnosis and management plan for skin appendages.</p> <p>1.10.9. Integrate the clinical data from history, clinical examination and investigations to reach the proper diagnosis and treatment for Disorders of pigmentation</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1. Do diascopy test for lupus vulgaris cases.</p> <p>1.11.2. Perform woods light examination for diagnosis of fungal infection</p> <p>1.11.3. Do cryotherapy in case of verruca vulgaris</p> <p>1.11.4. Apply Grattage test in case of psoriasis</p> <p>1.11.5. Do comedo extraction in case of acne vulgaris</p> <p>1.11.6. Perform woods light examination in case of vitiligo and melasma.</p>
<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p>

	<p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p>
1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	1.15.1 Provide first aid measured for emergency cases including Steven Johanson syndrome

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	<p>3.1.1 Demonstrate a professional. respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>
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 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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>

III- Module Contents:

Theoretical	
Topic	Teaching hours
Anatomy & physiology of human skin and its appendages	1
Nonspecific bacterial infections	1
Specific mycobacterial infection: (TB – leprosy)	1
Fungal infection	1
Viral infections	1
Parasitic infestations	1
Skin allergic disorders	1
Papulosquamous disorders	1
Disorders of skin appendages	1
Disorders of pigmentation	1
Autoimmune diseases of the skin	1
Differential diagnosis of common skin diseases	1
Total	12
Practical	
Topic	Teaching hours
Practical session (1): Anatomy & physiology of human skin and its appendages	1.5
Practical session (2): Nonspecific bacterial infections	1.5
Practical session (3): Specific mycobacterial infection: (TB – leprosy)	1.5
Practical session (4): Fungal infections	1.5
Practical session (5): Viral infections	1.5
Practical session (6): Parasitic infestations	1.5
Practical session (7): Skin allergic disorders	1.5
Practical session (8): Papulosquamous disorders	1.5
Practical session (9): Disorders of skin appendages	1.5
Practical session (10): Disorders of pigmentation	1.5
Practical session (11): Autoimmune diseases of the skin	1.5
Practical session (12): Differential diagnosis of common skin diseases	1.5
Total	18

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

c) Team Based Learning

2. Clinical Teaching:

a) 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem-solving, multiple-choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, Research.	During the module
Final practical exam	30%	Data show exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple-choice questions, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	20	40%
Final Practical exam.	15	30%
Activities	15	30%
Total	50	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:

1- Lecture Notes

2- Textbooks:

- Rook's Textbook of Dermatology, 9th edition. By: Burn T, Breathnach S, Cox N, Griffiths C. Blackwell Pub, 2016
- Fitzpatrick's color atlas and synopsis of clinical dermatology, 7th edition. By: Wolff K, Johnson RA. McGraw Hill, 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						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Self-directed study	Formative Assessment		Summative Assessment				
								Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.5					x			x		x	x		x
1.2	1.2.1 to 1.2.3			x		x			x		x			x
1.4	1.4.1 to 1.4.7					x			x		x	x		x
1.5	1.5.1	X	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		x	
1.7	1.7.1, 1.7.2			x		x		x		x				
1.8	1.8.1 to 1.8.12	X	x	x	x		x	x		x		x	x	x
1.10	1.10.1 to 1.10.9			x	x	x	x	x	x	x	x		x	x
1.11	1.11.1 to 1.11.6					x			x		x			x
1.13	1.13.1 to 1.13.7			x		x	x	x	x	x	x		x	
1.15	1.15.1			x		x		x	x	x	x		x	x
2.9	2.9.1					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		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:

Name: Dr Mai Medhat

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Primary health care & elderly care

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Primary health care & elderly care

Code No: PHC/ELD 3204

Department offering the Module: Family Medicine, Internal Medicine, Public Health

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

Academic year/level: Third level

Semester: Semester VI

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by faculty council:2018

Credithours:2.5credit hours / 2 weeks.

	Teaching hours		
	Lectures	Practical	Activities
Family Medicine	9	13.5	27
Internal Medicine	3	4.5	9
Public Health	3	4.5	9
Total	15	22.5	45

B- Professional Information

I. Aim of the Module:

This module prepares a community-oriented physician capable of implementing preventive and control measures for common communicable diseases on the individual, family, and community levels and, anticipating and responding to community health needs within the primary health care (PHC) setting according to the policies, regulations and guidelines of the Ministry of Health and Population (MOHP). The module enables the students to incorporate the knowledge and skills of many disciplines needed for effective management of medical, neurological, and psychiatric illness in the aged.

II- Intended 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 a thorough history taking to an elderly case. 1.1.2. Interpret the clinical symptoms of different elderly cases. 1.1.3. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.4. Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.5. Perform effective eye contact, active listening, and appropriate body language. 1.1.6. Record clinical data in a complete, accurate and retrievable manner. 1.1.7. Present information clearly in written, electronic, and verbal forms.
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.

		<p>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.</p> <p>1.2.5. Identify the approach for management of difficult communication including breaking bad news.</p>
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.	<p>1.4.1. Practice assessment of functional, psychological and cognitive functions of geriatric patients</p> <p>1.4.2. Practice assessment of weight and nutritional status of elderly</p> <p>1.4.3. Conduct assessment for the common health problems in elderly.</p> <p>1.4.4. Practice assessment of end-of-life patient.</p> <p>1.4.5. Apply the ethics of medical practice when examining patients.</p> <p>1.4.6. Apply proper infection control when dealing with patients.</p>
1.5	Prioritize issues to be addressed in a patient encounter.	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for an elderly case.</p> <p>1.5.2. Prioritize problems while managing an elderly case.</p>
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	<p>1.6.1. Follow the guidelines in choosing the proper investigations for an elderly case.</p> <p>1.6.2. Interpret the laboratory results for different elderly cases.</p>
1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<p>1.7.1. Work with other healthcare professionals in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p> <p>1.7.4. Interpret the difference between referral and consultation.</p>

- 1.8** Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.
- 1.8.1. Recognize the definition of primary health care from the community and family medicine view.
 - 1.8.2. Recognize the principles and elements of primary health care.
 - 1.8.3. Schedule the elements of PHC and in relation to the functions of the different health services in Egypt
 - 1.8.4. Recognize the role of PHC physician in addressing local health problems, the prevention and control of vulnerable groups' health problems.
 - 1.8.5. Recognize the role of family health team in family types and dynamics, family function and changes
 - 1.8.6. Recognize family medicine model of care.
 - 1.8.7. Identify characteristics and duties of the family physician
 - 1.8.8. List the PHC services in Egypt.
 - 1.8.9. Recognize the meaning and component of BBP.
 - 1.8.10. Recognize reasons for referral .
 - 1.8.11. Describe criteria and elements of referral letters
 - 1.8.12. Define gerontology and geriatrics and list most common condition/ medical problems associated with aging.
 - 1.8.13. Identify the preventive measures included in geriatric periodic health care.
 - 1.8.14. Describe the functional and cognitive assessment of geriatric patients.
 - 1.8.15. Describe the psychosocial and special sense assessment of geriatric patient.
 - 1.8.16. Describe falls in old patient through proper history taking, causes and how to prevent.
 - 1.8.17. Recognize the altered presentation of common medical problems in elderly patients and differentiate between the effect of aging and disease.
 - 1.8.18. Describe new strategies to manage common medical problems in elderly patients.
 - 1.8.19. Demonstrate the nutritional needs, meals and eating to older people.

	<p>1.8.20. Recognize the role of primary health care physician in geriatric.</p> <p>1.8.21. Identify the importance of family and home environment in supporting elderly life.</p> <p>1.8.22. Recognize the role of family physician with end-of-life patients.</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. Integrate the results of history, physical and laboratory tests into a correct diagnosis.</p> <p>1.10.2. Formulate a differential diagnosis for an elderly case.</p> <p>1.10.3. Integrate physical, social, psychological, and medical problems in elderly patients.</p> <p>1.10.4. Relate common medical illness with multi-system reflection and their differential diagnosis.</p> <p>1.10.5. Analyze clinical presentation of different medical illness in elderly patients.</p>
<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Select the appropriate screening test for elderly people.</p> <p>1.13.5. Formulate a preventive approach for geriatric periodic health care.</p> <p>1.13.6. Select the proper management line for different medical disorders in elderly patients..</p> <p>1.13.7. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.8. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.9. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.10. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.11. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.</p>

		1.13.12. Evaluate risk /benefit of any intervention to tailor the management plan with minimum risk to the patient.
1.15	Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	1.15.1. Provide first aid measures for emergency cases in elderly cases.
1.17	Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification.	1.17.9 Design, implement and evaluate health services for elderly people. 1.17.10 Formulate the assessment measures for end-of-life patient and his care givers

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.1 Identify the basic determinants of health and principles of health improvement.	2.1.1 Interpret the principles of primary health care. 2.1.2 Distinguish between family health model and traditional model of practice 2.1.3 Select the proper activity for health promotion. 2.1.4 Discriminate the characteristics of PHC. 2.1.5 Relate the elements of PHC to the functions of the different health services in Egypt. 2.1.6 Calculate different health related indices 2.1.7 Interpret different health indices in relation to the community problems. 2.1.8 Interpret the family dynamics according to different situations. 2.1.9 Discriminate different stages of family life cycle. 2.1.10 Analyze the changes of family and demonstrate the family dynamics.

2.3	Discuss the role of nutrition and physical activity in health.	2.3.1 Interpret the nutritional status to take appropriate action to meet optimum nutrient supply
2.7	Provide care for specific groups including pregnant women, newborns and infants, adolescents and the elderly.	2.7.1 Apply the components of (BBP) on different cases. 2.7.2 Manage common health problems among elderly. 2.7.3 Conduct health maintenance and disease prevention for elderly people.
2.9	Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.4.1 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
4.3 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. Explain the causes of aging within the concept of epidemiologic transition and demographic transition.

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
5.10 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.	5.10.1. Practice writing a proper referral letter.

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 either 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
Principles of family medicine	1	Family Medicine
Family types and dynamics	1	Family Medicine
Family physician Family health team	1	Family Medicine
Basic Benefit Package (BBP)	1	Family Medicine
Referral	1	Family Medicine
-Anticipatory care for elderly (Assessment and Screening for geriatric health problems)	1	Family Medicine
Comprehensive geriatric care -Functional Domains -Cognitive and psychic domains	1	Family Medicine
Common medical and non-medical health problems as: Falls, incontinence, physiological deterioration	1	Family Medicine
-Care of dying patients	1	Family Medicine
-Introduction to geriatric medicine - Health related Problems in the elderly	1	Public Health
Levels of health care PHC principles, strategy, and elements	1	Public Health
Health indicators	1	Public Health
Common health problems and their management in elderly patients (renal, endocrine, hepatology)	1	Internal Medicine
Common health problems and their management in elderly patients (rheumatological and hematology)	1	Internal Medicine
Nutrition and geriatric	1	Internal Medicine
Total	15	
Practical		
Topic	Teaching Hours	Department
Approach to geriatric patient-1 (Fulfil checklist for geriatric assessment)	3	Family Medicine
Approach to geriatric patient-2 (Fulfil checklist for geriatric assessment)	3	Family Medicine

-Referral	1.5	Family Medicine
Approach to geriatric patient-3 (Fulfil checklist for geriatric assessment)	3	Family Medicine
Approach to geriatric patient-4 (Fulfil checklist for geriatric assessment)	3	Family Medicine
Community services for the elderly	1.5	Public Health
-Indicators for utilization of care	1.5	Public Health
-Indicators for quality of life	1.5	Public Health
History and general examination of geriatric patients	1.5	Internal Medicine
local examination of geriatric patients	1.5	Internal Medicine
Nutrition assessment of elderly	1.5	Internal Medicine
Total	22.5	

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

3. Field Training

4. Self-directed Learning

V-StudentAssessment:

A. Attendance criteria:

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

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes a multiple-choice questions, problems-solving exercises and independent learning activities in all subjects. These will be given during tutorial and practical sessions. The Answers are presented and discussed immediately with you after the assessment. The results will be made available to the students.

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

C- Summative Assessment methods and Schedule:

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

D-Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	25	40%
Final Practical exam.	18.75	30%
Activities	18.75	30%
Total	63.5	100%

E-Grading for by GPA System:

The Percentage	Symbols	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:

1- **Module handout.**

2- **Essential Books:**

Internal Medicine:

- Brocklehurst's Textbook of Geriatric Medicine and Gerontology, 7th Edition. By: Howard M. Fillit, Kenneth Rockwood, Kenneth Woodhouse. Saunders, 2010
- Oxford Textbook of Geriatric Medicine, 3rd edition. By: Jean-Pierre Michel, B. Lynn Beattie, Finbarr C. Martin, Jeremy D. Walston. Oxford University Press, 2018.

Public Health:

- Population Health: Principles and Applications for Management, 1st Edition. By: Rosemary Caron.
- Essentials Of Public Health – 3rd Edition (Essential Public Health. By: Bernard J. Turnock. Jones & Bartlett Learning, 2015.

Family Medicine:

- Oxford Textbook of Primary Medical Care. By: Roger Jones. Oxford University Press, 2004.
- Textbook of Family Medicine 9th Edition. By: Rakel, Robert E. Saunders; 2015.
- Swanson's Family Medicine Review 8th Edition. By: Alfred F. Tallia, Joseph E. Scherger, Nancy W. Dickey. Elsevier, 2016.
- CURRENT Diagnosis & Treatment in Family Medicine, 4th Edition 4th Edition. By: Jeannette South-Paul, Samuel Matheny, Evelyn Lewis. McGraw Hill / Medical, 2015.

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						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Jigsaw Learning	Self-directed study	Formative Assessment		Summative Assessment				
									Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.7					X				X		X	X		X
1.2	1.2.1 to 1.2.5			X		X				X		X			X
1.4	1.4.1 to 1.4.6					X				X		X	X		X
1.5	1.5.1, 1.5.2	X	X	X	X	X		X	X	X	X	X		X	X
1.6	1.6.1, 1.6.2	X	X	X	X	X		X	X	X	X	X		X	
1.7	1.7.1 to 1.7.4			X		X			X		X				
1.8	1.8.1 to 1.8.22	X	X	X	X		X	X	X		X		X	X	X
1.10	1.10.1 to 1.10.5			X	X	X		X	X	X	X	X		X	X
1.13	1.13.1 to 1.13.12			X		X		X	X	X	X	X		X	
1.15	1.15.1			X		X			X	X	X	X		X	X
1.17	1.17.1, 1.17.2					X				X		X			X
2.1	2.1.1 to 2.1.10	X	X		X			X	X		X			X	X
2.3	2.3.1	X	X		X			X	X		X			X	X
2.7	2.7.1 to 2.7.3			X		X			X	X	X	X		X	
2.9	2.9.1					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
4.3	4.3.1	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. Mahmoud Elrefy

Program Coordinator: Prof. Dr. Zeinab Kasemy



Menoufia Faculty of Medicine
Assiut branch



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Child Health

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Child health

Code No: CHILD 3205

Department offering the Module : Pediatrics, Public health, and Family medicine.

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

Academic year/level: Third level

Semester: VI

Date of specification: 2018

Date of approval by Department Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 2.5 hours/ 2 weeks

Teaching hours			
	Lectures	Practical	Activities
Pediatric Department	9	13.5	27
Community medicine department	3	4.5	9
Family medicine department	3	4.5	9
Total	15	22.5	45

- Professional Information

I. Aim of the Module:

To provide the students with basic knowledge and clinical skills regarding normal and abnormal growth and development, pediatric nutrition, genetic disorders, neonatal screening, prenatal

diagnosis, genetic counseling, preventive and curative health services for children including the practice of active and passive immunization.

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 pediatric cases according to their age group. 1.1.2. Analyze different developmental milestones to reach a diagnosis of normal and abnormal development 1.1.3. Analyze family pedigrees of autosomal dominant inheritance and autosomal recessive inheritance. 1.1.4. Interpret the family pedigrees of X-linked recessive and X-linked dominant inheritance.
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. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community.
1.4 Perform appropriately timed full physical examination of patients, appropriate to the age, gender,	1.4.1. Apply different anthropometric measures and recognize their abnormalities

	and clinical presentation of the patient while being culturally sensitive.	<p>1.4.2. Interpret different anthropometric measures and plotting them on different growth charts.</p> <p>1.4.3. Report clinical uses of growth charts in pediatrics.</p> <p>1.4.4. Assess different pediatric vital signs.</p> <p>1.4.5. Perform correct clinical assessment of the child general look and recognize its abnormalities.</p> <p>1.4.6. Perform correct general examination including head, face, neck, extremities, skin and lymph node examination.</p> <p>1.4.7. Perform correct clinical examination for a case of Down syndrome and recognize abnormalities in their development.</p> <p>1.4.8. Perform correct clinical examination and make a diagnostic approach and a treatment plan for children with marasmus and kwashiorkor diseases.</p> <p>1.4.9. Perform correct clinical examination and make a diagnostic approach and treatment plan for a child with rickets.</p> <p>1.4.10. Apply basic practical skills for preparing immunization session.</p> <p>1.4.11. Calculate infant mortality rates.</p>
1.5	Prioritize issues to be addressed in a patient encounter.	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different genetic cases.</p> <p>1.5.2. Prioritize problems while dealing with growth abnormality.</p>
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	<p>1.6.1. Select the proper investigations for different genetic disorders or growth abnormalities.</p> <p>1.6.2. Interpret bone and dental ages.</p> <p>1.6.3. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p> <p>1.6.4. Interpret laboratory and radiological investigations of Down syndrome.</p> <p>1.6.5. Interpret investigations of Turner syndrome.</p> <p>1.6.6. Interpret investigations of Klinefelter syndrome.</p> <p>1.6.7. Interpret laboratory and radiological investigations of Down syndrome.</p>

		1.6.8. Interpret investigations of Turner syndrome.
		1.6.9. Interpret investigations of Klinefelter syndrome.
1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<p>1.7.1. Work with other healthcare professions in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>
1.8	Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	<p>1.8.1. Recognize clinical picture of Down syndrome.</p> <p>1.8.2. Identify causes of death in the case of Down syndrome.</p> <p>1.8.3. Recognize clinical picture of Trisomy 18 and causes of death.</p> <p>1.8.4. Describe clinical pictures of Patau and Cri-du-chat syndromes.</p> <p>1.8.5. Describe clinical picture of Turner syndrome.</p> <p>1.8.6. Describe clinical picture of Klinefelter syndrome.</p> <p>1.8.7. Outline features of autosomal dominant inheritance.</p> <p>1.8.8. Outline features of autosomal recessive inheritance.</p> <p>1.8.9. Identify features of X-linked recessive and X-linked dominant inheritance.</p> <p>1.8.10. Define the importance of family pedigree.</p> <p>1.8.11. Identify definition of neonatal screening.</p> <p>1.8.12. Recognize importance of neonatal screening.</p> <p>1.8.13. Identify criteria of screened diseases.</p> <p>1.8.14. Outline technique of neonatal screening.</p> <p>1.8.15. Identify indications of neonatal screening.</p> <p>1.8.16. Identify etiology, pathogenesis, clinical manifestations and complications of rickets.</p> <p>1.8.17. Identify prevention and treatment of rickets.</p> <p>1.8.18. Explain etiology, clinical manifestations and complications of marasmus.</p> <p>1.8.19. Outline treatment of marasmus.</p> <p>1.8.20. Describe the etiology, clinical manifestations and complications of kwashiorkor.</p> <p>1.8.21. Identify treatment of kwashiorkor.</p> <p>1.8.22. Recognize clinical importance of breast feeding.</p>

- 1.8.23. Identify definition and strategy of weaning.
- 1.8.24. Identify the preventive health services for children including the cold chain and its components.
- 1.8.25. Describe the curative health services for children including diagnosis, treatment and prevention of child health problems
- 1.8.26.** Identify the social health services
- 1.8.27. Identify both active and passive immunization
- 1.8.28.** Explain different types of vaccines
- 1.8.29. Identify common health problems among children.
- 1.8.30. Identify component of integrated management for childhood illness (IMCI) program.
- 1.8.31. Recognize importance of IMCI.
- 1.8.32. List components of anticipatory care in children.
- 1.8.33. Recognize the importance of periodic health examination.
- 1.8.34. Identify common health problems among adolescents.
- 1.8.35. List steps for proper adolescent approach
- 1.8.36. Identify component of anticipatory care for adolescents.
- 1.8.37. Recognize the role of family physician in prevention and management of health problems in children and adolescents.

1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

- 1.10.1. Formulate the collected data during history taking and clinical examination to reach a provisional diagnosis and differential diagnosis.
- 1.10.2. Analyze different developmental milestones to reach a diagnosis of normal and abnormal development.
- 1.10.3. Formulate a differential diagnosis of edema in children.

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| <p>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.</p> | <p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up-to-date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.8. Formulate a management for Down syndrome.</p> <p>1.13.9. Formulate a management for Turner syndrome</p> <p>1.13.10. Formulate a management plan for Klinefelter syndrome.</p> <p>1.13.11. Report a management plan for protein energy malnutrition in children.</p> <p>1.13.12. Construct a management plan for rickets.</p> |
|--|--|

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.7 Provide care for specific groups including pregnant women, newborns and infants, adolescents and the elderly.	<p>2.7.1. Design health educational messages for adolescent.</p> <p>2.7.2. Apply IMCI program on different childhood health problems.</p> <p>2.7.3. Conduct counselling session with an adolescent.</p> <p>2.7.4. Formulate breast feeding counseling.</p> <p>2.7.5. Design health educational messages for adolescent.</p>
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>
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
4.3 Recognize and describe main developmental changes in humans and the effect of growth, development and aging on the individual and his family.	<p>4.3.1. Define growth and development and identify different patterns of growth in children.</p> <p>4.3.2. Identify different types of growth charts.</p> <p>4.3.3. Describe different milestones of development at its four fields (Gross motor, fine motor, language and social development).</p>
4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1. Outline indications of karyotyping.</p> <p>4.5.2. Outline causes of chromosomal aberrations.</p> <p>4.5.3. Identify mechanism of aneuploidy.</p> <p>4.5.4. Recognize types of the structural abnormalities of the chromosomes.</p> <p>4.5.5. Outline definition and incidence of Down syndrome.</p> <p>4.5.6. Describe cytogenetics of Down syndrome.</p> <p>4.5.7. Outline incidence and genotype of Turner syndrome.</p> <p>4.5.8. Outline incidence and genotype of Klinefelter syndrome.</p> <p>4.5.9. List different modes of inheritance.</p> <p>4.5.10. Describe modes of six related inheritance.</p> <p>4.5.11. Outline definition of the congenital anomalies.</p> <p>4.5.12. Identify classification of congenital anomalies.</p> <p>4.5.13. Identify the difference between the sequences, developmental field defects, syndromes, associations and complexes.</p> <p>4.5.14. Outline categories of birth defects.</p> <p>4.5.15. Discuss mitochondrial inheritance and its criteria.</p> <p>4.5.16. Identify the normal traits inherited by multifactorial inheritance</p> <p>4.5.17. Recognize the abnormal traits inherited by multifactorial inheritance</p>

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>



Menoufia Faculty of Medicine



III. Module Contents:

Theoretical		
Topic	Teaching Hours	Department
Basic of genetics	2	Pediatrics
Chromosomal aberrations Chromosomal disorders		
Patterns of inheritance	2	Pediatrics
Prenatal diagnosis and genetic counselling		
Neonatal screening	1	Pediatrics
Growth and development	1	Pediatrics
Breast feeding, weaning and formula feeding	2	Pediatrics
PEM, Rickets	1	Pediatrics
Child health services	1	Public Health
Immunity and vaccination	1	Public Health
Cold chain system	1	Public Health
Anticipatory care for child and adolescents	1	Family Medicine
Breast feeding	1	Family Medicine
IMCI	1	Family Medicine
Total	15	
Practical		
Topic	Teaching Hours	Department
Nutritional and developmental history	1.5	Pediatrics
anthropometric measures	1.5	Pediatrics
Nutritional classifications	1.5	Pediatrics
PEM	1.5	Pediatrics
Head, face examination	1.5	Pediatrics
neck, and extremities examination	1.5	Pediatrics
Nutritional Rickets	1.5	Pediatrics
Down syndrome	1.5	Pediatrics
Pediatric Clinical spots	1.5	Pediatrics
Cold chain vaccine	2.5	Public Health
Vaccination	2	Public Health
IMCI	1.5	Family Medicine
Breast feeding counselling	1	Family Medicine
Adolescent care	2	Family Medicine
Total	22.5	



IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem-solving, multiple-choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		10% Attendance and behavior 20% Participation in 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	25	40%
Final Practical exam.	18.75	30%
Activities	18.75	30%
Total	62.5	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



Menoufia Faculty of Medicine



VI. List of references and resources:

- **Lecture Notes of the Module Departments**
- **Essential books:**

Public Health:

- Population Health: Principles and Applications for Management, 1st Edition. By: Rosemary Caron.
- Essentials Of Public Health – 3rd Edition (Essential Public Health. By: Bernard J. Turnock. Jones & Bartlett Learning, 2015.

Family Medicine:

- Oxford Textbook of Primary Medical Care. By: Roger Jones. Oxford University Press, 2004.
- Textbook of Family Medicine 9th Edition. By: Rakel, Robert E. Saunders; 2015.
- Swanson's Family Medicine Review 8th Edition. By: Alfred F. Tallia, Joseph E. Scherger, Nancy W. Dickey. Elsevier, 2016.
- CURRENT Diagnosis & Treatment in Family Medicine, 4th Edition 4th Edition. By: Jeannette South-Paul, Samuel Matheny, Evelyn Lewis. McGraw Hill / Medical, 2015.

Pediatrics:

- Nelson Textbook of Pediatrics, 20th Edition. By: Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme, Nina F Schor. W B Saunders Co Ltd, 2015.
- American Academy of Pediatrics Textbook of Pediatric Care, 2nd Edition. By: Thomas K. McInerney, Henry M. Adam, Deborah E. Campbell, Thomas G. DeWitt, Dr. Jane Meschan Foy, Dr. Deepak M. Kamat. American Academy of Pediatrics, 2016.
- Schwartz's Clinical Handbook of Pediatrics (Point (Lippincott Williams & Wilkins)) 5th Edition. By: Joseph J. Zorc, Elizabeth R. Alpern, Lawrence W. Brown, Kathleen M. Loomes, Bradley S. Marino, Cynthia J. Mollen, Leslie J. Raffini. LWW, 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.

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods							Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Self-directed study	Formative Assessment		Summative Assessment				
									Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1,1,4					X	X			X		X	X		X
1.2	1.2.1 to 1.2.4			X		X	X			X		X			X
1.4	1.4.1 to 1.4.11					X	X			X		X	X		X
1.5	1.5.1, 1.5.2	X	X	X	X	X		X	X	X	X	X		X	X
1.6	1.6.1 to 1.6.9	X	X	X	X	X	X	X	X	X	X	X		X	
1.7	1.7.1, 1.7.3			X		X			X		X				
1.8	1.8.1 to 1.8.37	X	X	X	X			X	X		X		X	X	X
1.10	1.10.1 to 1.10.3			X	X	X		X	X	X	X	X		X	X
1.13	1.13.1 to 1.13.12			X		X		X	X	X	X	X		X	
2.7	2.7.1 to 2.7.5			X		X			X	X	X	X		X	
2.9	2.9.1					X	X			X		X			X
3.1	3.1.1 to 3.1.2					X	X			X		X			X
3.4	3.4.1					X	X			X		X			X
3.8	3.8.1					X	X			X		X			X
4.3	4.3.1 to 4.3.3	X	X	X	X			X	X		X			X	X
4.5	4.5.1 to 4.5.17	X	X	X	X			X	X		X			X	X
5.2	5.2.1, 5.2.2	X	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 Ahmed Shawky Hola

Signature: Dr Ahmed Shawky Hola

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Signature: Prof. Dr. Zeinab Kasemy



Menoufia Faculty of Medicine
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Community Medicine

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Community medicine

Code: COM 3203

Department offering the Module Public health and community medicine

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

Academic year: 3rd year

Semester: VI

Date of specification: 2018

Date of approval by Department Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 5 credit hours/ 5 weeks

	Teaching hours		
	Lectures	Practical	Activities
<i>Public Health and Community Medicine</i>	30	45	90

B-Professional information

I. Aim of the Module:

To prepare a community-oriented physician capable of implementing preventive and control measures for common communicable diseases on the individual, family and community levels and within the primary health care (PHC) settings following MOHP policies and protocols.

II. Learning outcomes of the Module:

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.1 Identify epidemiology and screening of diseases, determinants of health and principles of health promotion.	<p>2.1.1. Implement a qualified management plan for dealing with a health problem and disease prevention.</p> <p>2.1.2. Formulate a management plan for public health problems.</p> <p>2.1.3. Analyze a changing work environment.</p> <p>2.1.4. Collaborate with his colleagues in a teamwork during field visits, class discussion, as well as solving problems.</p> <p>2.1.5. Demonstrate an ethical behavior with his teachers, colleagues as well as other personnel in the field.</p>
2.2 Describe the principles of disease prevention, and empower communities, specific groups or individuals by raising their awareness and building their capacity for participation.	<p>.2.1. Describe the MOHP programs for prevention and control of the communicable and most prevailing diseases in Egypt.</p> <p>.2.2. Describe the role of PHC physician in addressing local health problems, the prevention and control of vulnerable groups' health problems.</p> <p>.2.3. Define the screening tests pertinent to selected morbidity conditions and the at-risk approach in the application of screening tests.</p> <p>.2.4. Describe the different health education/communication strategies for use with clients, health care team, and the community.</p> <p>.2.5. Explain how different health related behaviors can have an impact on health and disease.</p> <p>.2.6. Assess and respond to individual and population health hazards.</p> <p>.2.7. Express freely and adequately themselves by improving descriptive capabilities and communication skills.</p> <p>.2.8. Demonstrate ethical relationship with faculty and staff members.</p>

2.3	Identify the double burden of major health threats in the community, mainly endemic diseases, communicable and non-communicable diseases.	<p>2.3.1 Explain the ecological factors of morbidity and mortality within the concept of epidemiologic and demographic transitions.</p> <p>2.3.2 Explain the basic terms and methods used in infectious disease epidemiology, disease prevention and control trials, outbreak investigation, and evaluation of screening tests.</p>
2.4	Recognize the epidemiology of newly emerged and re-emerging diseases, risk factors for their appearance, pattern of their spread and their incidence rate.	<p>2.4.1 Identify trends in health and disease including epidemiological causes of high prevalence of certain infections, causes of eradication, emerging or reemerging previous infections worldwide and in Egypt.</p> <p>2.4.2 Define epidemiologic approaches of disease occurrence in communities: determinants, distribution and dynamics including prevention and control</p>
2.5	Identify the major health threats in the community, including demographic, occupational and environmental risks, endemic diseases, communicable and non-communicable diseases.	<p>2.5.1. Define occupational hazards with their risk factors, prevention and control with element of occupational health program.</p> <p>2.5.2. Identify the nature, health effects, and sources of environmental risks and Explain methods for monitoring the quality of water, food and air.</p> <p>2.5.3. Describe principles of waste management in the community and in health care settings.</p>
2.6	Recognize the economic, psychological, social, and cultural factors that interfere with wellbeing (mental and social health).	<p>2.6.1. Demonstrate respect to all patients irrespective of their socioeconomic levels, culture or religious beliefs and use language and other communication skills appropriate to the patient culture.</p> <p>2.6.2. Interact and communicate sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, and professional backgrounds, and with persons of all ages and lifestyle preferences.</p>
2.7	Discuss the role of both nutrition & physical activity in health and therapeutic nutrition in early disease management.	<p>2.7.1. Define the basics of nutritional assessment and diet in health and different diseases with identification of nutritional public health problems.</p>

	2.7.2	Define malnutrition problems and Explain methods of assessment of nutritional status
	2.7.3	Prescribe diet plans for selected disease conditions.
2.8		Provide care for specific groups including pregnant women, newborns and infants, adolescents and the elderly.
	2.8.1	Identify the health status of populations, determinants of health and illness, factors contributing to health promotion and disease prevention, and factors influencing the use of health services.
	2.8.2	Assess non communicable and communicable diseases within the different health settings and for specific age groups.
	2.8.3	Define different MOHP policies, systems, programs, approved standards of practice and describe the specific health programs including, school health, occupational health, etc.

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

sponsibilities and engaging in shared decision-making for effective patient management.

5.8 Apply fundamental knowledge of health economics to ensure the efficiency and effectiveness of the health care system.	<p>5.8.1. Describe the quality cycles and its utilization in different public health settings.</p> <p>5.8.2. Identify the dimensions of quality in health care, and how to *utilize appropriately quality concepts and processes for performance improvement.</p> <p>5.8.3. Manage time and resources effectively.</p> <p>5.8.4. Formulate policy for a given health issue.</p> <p>5.8.5. Manage planning, implementation and evaluation of health care services,</p> <p>5.8.6. Utilize health care system in dealing appropriately with a specific community health problem.</p> <p>5.8.7. Design, implement and evaluate health services for both individuals and populations. use objective, measurable criteria such as epidemiological impact and cost effectiveness.</p> <p>5.8.8. Conduct, document and analyze a comprehensive situation analysis recognizing non biological factors that may influence disease causation/ management, client's perception of health/ disease, access to care and adequately respond to these factors in the benefit of the client, patient& community.</p>
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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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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	
Surveillance & screening	2
Public Health Administration	2
Quality assurance	2
Epidemiology of non-communicable diseases	2
Basic nutrition+ Malnutrition	2
STD+ Contact transmitted diseases	2
Arthropod borne infection+ Parasitic infection	2
Smoking & drug addiction	2
Droplet infection	2
Occupational-health program+ Zoonotic diseases	2
Water sanitation+ Food sanitation	2
Air sanitation	2
Pneumoconiosis	2
Heat disorders+ Pressure disorders	2
Heavy metals+ Radiation	2
Total	30
Practical	
Topic	Teaching Hours
Natural history of the disease & epidemiological triad	1.5
Screening Problem solving	1.5
Infectious cycle	1.5
Food born infection: Problem solving	1.5
Viral hepatitis: Problem solving	1.5
Health education: Tutorial	1.5
Hypertension & diabetes: problem solving	1.5
Diet planning & nutritional assessment	1.5
Outbreak investigation: Tutorial	1.5
STD: Problem solving	1.5
Nutritional anemia	1.5
Diet therapy: Tutorial	1.5
Emerging& re-emerging diseases	1.5
Water sanitation scenario (field visit)	1.5
Droplet: problem solving	1.5

Food sanitation– scenario (field visit)	1.5
Tuberculin & widal test	1.5
School health: tutorial	1.5
Evaluation of heat stress and strain	1.5
Noise	1.5
Formative exam	1.5
Pulmonary function tests	1.5
Factory visit scenario (field visit)	1.5
Factory visit scenario (field visit)	1.5
Revision	3
Revision	3
Revision	3
Total	45 hours

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

Clinical rounds: using

- Web based video and Multimedia applications
- Problem solving

3. Field Training

4. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

3. Certification of performance

4. Grades

C. Summative Assessment Methods and Schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	50	40%
Final Practical exam.	37.5	30%
Activities	37.5	30%
Total	125	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:

- Department book
- Essential Books:

- Population Health: Principles and Applications for Management, 1st Edition. By: Rosemary Caron.
- Essentials Of Public Health – 3rd Edition (Essential Public Health. By: Bernard J. Turnock. Jones & Bartlett Learning, 2015.
- Maxey-Rosenau-Last Public Health and Preventive Medicine: Fifteenth Edition (Maxey-rosenau-last) 15th Edition. By: Robert Wallace. McGraw Hill / Medical; 2007.
- Textbook Of Community Medicine & Public Health. By: Saira Afzal Sabeena Jalal. Paramount Publishing Enterprise, 2018.

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							
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Field Training	Self-directed study	Formative Assessment		Summative Assessment					
2.1	2.1.1 to 2.1.5	x	x	x	x	x	x	x	X	x	x	x	x	x	x	x
2.2	2.2.1 to 2.2.8	x	x	x	x	x	x	x	X	x	x	x	x	x	x	x
2.3	2.3.1., 2.3.2	x	x	x	x	x		x	X	x	x	x	x	x	x	x
2.4	2.4.1, 2.4.2	x	x	x	x	x		x	X	x	x	x	x	x	x	x
2.5	2.5.1 to 2.5.3	x	x	x	x	x	x	x	X	x	x	x	x	x	x	x
2.6	2.6.1, 2.6.2	x	x	x	x			x	X		x				x	x
2.7	2.7.1 to 2.7.3	x	x	x	x	x		x	X	x	x	x	x	x	x	x
2.8	2.8.1 to 2.8.3	x	x	x	x	x		x	X	x	x	x	x	x	x	x
3.1	3.1.1 to 3.1.2					x	x			x		x				x
5.2	5.2.1, 5.2.2	x	x	x		x							x			x
5.8	5.8.1 to 5.8.3	x	x	x	x			x	X		x				x	x
6.2	6.2.1, 6.2.2							x	X	x	x	x	x	x	x	x
6.3	6.3.1							x	x	x	x	x	x	x	x	x
6.6	6.6.1, 6.6.2							x	x	x	x	x	x	x	x	x



Menoufia Faculty of Medicine
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<u>Module Coordinator:</u>	<u>Program Coordinator:</u>
Name: Prof. Mahmoud Abosalem Signature: Prof. Mahmoud Abosalem	Name: Prof. Dr. Zeinab Kasemy Signature: Prof. Dr. Zeinab Kasemy



Menoufia Faculty of Medicine
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وحدة
ضمان
الجودة

Investigations

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title: Investigations

Code No: INVEST 3206

Department offering the Module: Clinical Pathology, and Radiology.

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

Academic year/level: Third level

Semester: Sixth semester

Date of specification: 2018.

Date of approval by Department Council: 2018

Date of approval by Faculty Council: 2020, 2022

Credit hours: 2.5 hours / 2 weeks

	Teaching hours		
	Lectures	Practical	Activities
Clinical Pathology Department	9	13.5	27
Radiology department	6	9	18
Total	15	22.5	45

B- Professional Information

I. Aim of the Module:

To enable the students to identify the role of laboratory in disease management with interpretation of different laboratory reports. The students would be able to interpret basic radiological investigations in the context of the individual patient recognizing their applicability and limitations.

II- Learning Outcomes of the Module



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

Key competency	Module LOs
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.
1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1. Apply priority setting while selecting an investigation for different cases,
1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	1.6.1. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness. 1.6.2. Apply multi-modality imaging in the investigation of common clinical conditions (including common emergencies) 1.6.3. Justify the choice of imaging modality. 1.6.4. Judge the dangers of ionizing radiation, magnetic fields and intravascular contrast. 1.6.5. Criticize to avoid unnecessary investigations.
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

- | | | |
|-------------------|--|--|
| <p>1.8</p> | <p>Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p> | <ul style="list-style-type: none"> 1.8.1. Identify different types of DM, its laboratory diagnosis & complications. 1.8.2. Identify acidosis, alkalosis and regulation of acid base balance. 1.8.3. Determine different kidney function tests & its clinical implication 1.8.4. Determine different liver function tests & its clinical implication. 1.8.5. Identify different types of enzymes and their clinical significance in addition to cardiac markers & its use in AMI. 1.8.6. Determine different thyroid and adrenal gland disorders. 1.8.7. Identify different types and causes of anemias. 1.8.8. Identify different WBCs abnormalities. 1.8.9. Identify physiological hemostasis and role of platelets and coagulation factors. 1.8.10. Determine quantitative and qualitative platelets disorders. 1.8.11. Identify congenital and acquired factors deficiency. 1.8.12. Identify different anticoagulant therapy and their mechanism of action. 1.8.13. Identify different primary and secondary Immunodeficiency diseases & its laboratory diagnosis. 1.8.14. Identify different markers of viral infections & its clinical applications. 1.8.15. Identify different autoimmune diseases & its laboratory diagnosis. 1.8.16. Identify mechanisms and diagnosis of hypersensitivity & allergy. 1.8.17. Define nosocomial infections. 1.8.18. Recognize different organisms causing urinary tract infections. 1.8.19. Determine different organisms causing meningitis and septicemia. 1.8.20. Identify the radiological anatomy to investigate organ function. 1.8.21. Recognize normal structures as they appear on imaging. 1.8.22. Describe normal function processes related to imaging investigations. |
|-------------------|--|--|

- 1.8.23. Memorize the interpretation of basic imaging studies.
- 1.8.24. Outline the nature of basic imaging investigations like Ultrasound, CT MRI, Nuclear Medicine.
- 1.8.25. Recognize the role of diagnostic imaging and intervention in the investigation and management of the common clinical scenarios.
- 1.8.26. Describe the role of multi-modality imaging in the investigation of common clinical conditions (including common emergencies) and justify the choice of imaging modality.
- 1.8.27. Recognize and describe common pathologies on basic imaging.
- 1.8.28. Recognize radiological and imaging investigation integration in the patient care pathway.
- 1.8.29. Outline the indications and preparatory requirements for imaging studies.
- 1.8.30. Explain referral basis of patients effectively and appropriately.
- 1.8.31. Describe the limitations of imaging techniques.
- 1.8.32. Recognize and describe common pathologies on basic imaging.
- 1.8.33. Outline the contraindications to test/procedure.
- 1.8.34. Recognize the hazards of radiation.
- 1.8.35. State the basics of radiation protection for the medical team, patients, coworkers and colleagues.

1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

- 1.10.1 Correlate between lab tests & glycemic control.
- 1.10.2 Relate between ABG findings & different metabolic, respiratory acid base disturbances.
- 1.10.3 Correlate between kidney function tests findings & different diseases.
- 1.10.4 Correlate between liver function tests and different liver diseases.
- 1.10.5 Relate between urine analysis findings & different diseases.
- 1.10.6 Correlate between cardiac markers results & clinical progression of AMI.
- 1.10.7 Correlate between lab tests & different adrenal and thyroid disorders.
- 1.10.8 Correlate between abnormal CBC parameters and different types of anemias.
- 1.10.9 Correlate between total and differential leucocytic count and other lab findings.

	<p>1.10.10 Differentiate between different causes of abnormal coagulation tests either (congenital or acquired), (vascular or platelet dysfunction or clotting factors abnormalities).</p> <p>1.10.11 Correlate between hepatitis markers and different hepatic viral diseases.</p> <p>1.10.12 Correlate between different serological tests and different diseases.</p> <p>1.10.13 Correlate between different IF techniques and detection of diseases.</p> <p>1.10.14 Relate between Flowcytometry technique and detection of diseases.</p> <p>1.10.15 Compare the normal and abnormal imaging findings</p> <p>1.10.16 Evaluate adequately a radiological report and take the appropriate action exclusively in the acute setting.</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1 Assess blood glucose assay tests results and its relationship with different diseases.</p> <p>1.11.2 Assess urine sample precautions, transport, storage and assay.</p> <p>1.11.3 Apply basic skills and precautions for ABG sampling, transport and storage.</p> <p>1.11.4 Assess practical skills to interpret abnormal CBC and coagulation parameters to develop a cognitive understanding of the abnormal hematopoietic conditions.</p> <p>1.11.5 Differentiate normal and abnormal blood film morphology</p> <p>1.11.6 Assess different autoantibodies tests to identify different autoimmune diseases.</p> <p>1.11.7 Assess different serological tests results.</p> <p>1.11.8 Differentiate between ELISA techniques.</p> <p>1.11.9 Assess different stains and staining techniques</p> <p>1.11.10 Assess results and effect of bacteriological specimen collection.</p> <p>1.11.11 Specify suitable culture media for different types of samples.</p> <p>1.11.12 Relate between specimen collection and good bacteriological tests results.</p>
<p>1.13 Establish patient-centered management plans in partnership with the patient, his/her family and other health professionals as appropriate, using Evidence Based</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p>

<p>Medicine in management decisions.</p>	<p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.8. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.</p> <p>1.13.9. Evaluate risk /benefit of any intervention to tailor the management plan with minimum risk to the patient.</p>
<p>1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1. Perform first aid measure for emergent hazards of ionizing radiation or contrast media.</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
<p>2.9 Adopt suitable measures for infection control.</p>	<p>2.9.1 Apply infection control measures while dealing with patients</p>

Competency Area 3: The graduate as a professional.

Key competency	Module LOs
<p>3.1 Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.</p>	<p>3.1.3 Demonstrate a professional. respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.4 Demonstrate commitment and integrity while preparing the coursework and assignments</p>
<p>3.4 Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural</p>	<p>3.4.2 Demonstrate respect to social, culture, and ethnic difference of patients treating them equally.</p>

	or ethnic backgrounds, or their disabilities.	
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 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 either 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 content

Theoretical		
Topics	Teaching Hours	Department
Diabetes mellitus & its complications.	0.5	Clinical Pathology
Na, K & Acid base balance.	1	Clinical Pathology
Kidney function tests & related diseases.	0.5	Clinical Pathology
Liver function tests & related diseases.	0.5	Clinical Pathology
Enzymes and Cardiac Markers.	1	Clinical Pathology
Hormones	0.5	Clinical Pathology
RBC & related disorders.	1	Clinical Pathology
WBC & its disorders.	1	Clinical Pathology
Hemostasis & coagulation.	1	Clinical Pathology
Markers of viral infections.	0.5	Clinical Pathology
Disorders of immune system: Hypersensitivity, Autoimmunity, Immunodeficiency.	0.5	Clinical Pathology
Nosocomial infections and UTI.	0.5.	Clinical Pathology
Meningitis and septicemia.	0.5	Clinical Pathology
Introduction to radiology and medical imaging	1	Radiology
Imaging of the genitourinary tract	1	Radiology
Imaging of the gastrointestinal tract	1	Radiology
Imaging of the nervous system	1	Radiology
Imaging of musculoskeletal system	1	Radiology
Imaging of the cardiovascular and respiratory system	1	Radiology
Total	15	
Practical		
Topics	Teaching Hours	Department
Urine Analysis.	2	Clinical Pathology
ABG	2	Clinical Pathology
CBC, PT and PTT.	2	Clinical Pathology
ESR, Retics, blood cell morphology	2	Clinical Pathology
Principles of various immunoassay	2	Clinical Pathology
Microbiological sampling- Culture medias	2	Clinical Pathology
Revision	1.5	Clinical Pathology

Imaging of Genito-urinary system.	2	Radiology
Imaging of gastro-intestinal system.	2	Radiology
Imaging of central nervous system.	2	Radiology
Imaging of Musculo-skeletal system.	2	Radiology
Imaging of thorax	1	Radiology
Total	22.5	

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

c) Team 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	25	40%
Final Practical exam.	18.75	30%
Activities	18.75	30%
Total	62.5	100%

E- Grading for by GPA System:

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



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VI. List of references and resources:

- a) **Lecture notes**
- b) **Essential Books:**

Clinical Pathology:

- Tietz fundamentals of clinical chemistry and molecular diagnostics, 7th edition. By: Carl A. Burtis, David E. Bruns, Barbara G. Sawyer, Norbert W. Tietz. Elsevier/Saunders, 2015.
- Hematology for the Medical Student 1st edition. By: Alvin H. Schmaier, Lilli M. Petruzzelli. LWW, 2003.
- Essentials of Clinical Immunology, 5th Edition. By: Helen Chapel, Mansel Haeney, Siraj Misbah, Neil Snowden. Wiley-Blackwell, 2006.

Radiology:

- Textbook of Radiology and Imaging, 7th Edition. By: David Sutton, Rodney Reznek, Janet Murfitt. Churchill Livingstone, 2002.
- Fundamentals of Diagnostic Radiology, 3rd Edition. By: William E. Brant, Clyde A. Helms. Lippincott Williams & Wilkins, 2006.
- Primer of Diagnostic Imaging, 4th edition. By Ralph Weissleder, Jack Wittenberg, Mukesh G. Harisinghani, John W. Chen, Stephen E. Jones, Jay W. Patti. Mosby, 2006.

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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods						Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Self-directed study	Formative Assessment		Summative Assessment				
								Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.2	1.2.1 to 1.2.5			x		x			x		x			x
1.5	1.5.1	x	x	x	x	x	x	x	x	x	x		x	x
1.6	1.6.1 to 1.6.5	x	x	x	x	x	x	x	x	x	x		x	
1.7	1.7.1, 1.7.3			x		x		x		x				
1.8	1.8.1 to 1.8.35	x	x	x	x		x	x		x		x	x	x
1.10	1.10.1 to 1.10.16			x	x	x	x	x	x	x	x		x	x
1.11	1.11.1 to 1.11.12					x			x		x			x
1.13	1.13.1 to 1.13.9			x		x	x	x	x	x	x		x	
1.15	1.15.1			x		x		x	x	x	x		x	x
2.9	2.9.1					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		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

<u>Module Coordinator:</u>	<u>Program Coordinator</u>
Name: Dr Reem Mohsin Elkholy Signature: Dr Reem Mohsin Elkholy	Name: Prof. Dr. Zeinab Kasemy Signature: Prof. Dr. Zeinab Kasemy

Basic Clinical Oncology

University: Menoufia

Faculty: Medicine

A-Administrative information

Title: Basic Clinical Oncology

Code No: ONCO 3207

Department offering the Module : Clinical Oncology and Nuclear Medicine.

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

Academic year/level: Third level

Semester: Semester VI

Date of specification: 2020.

Date of approval by Departmental and Faculty Council: 2020

Credit hours: 1 credit hour/ 1 week

	Teaching hours		
	Lectures	Practical	Activities
Department of Clinical Oncology and Nuclear Medicine	6	9	18

- Professional Information

I.- Aim of the Module:

To provide the students with the basic information about diagnosis, treatment, and early detection of cancer based on the data obtained during the Module.

II. Learning Outcomes of the Module:

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

Key competency	Module LOs
1.2 Adopt an empathic and holistic approach to the patients and their problems.	<p>1.2.1. Demonstrate empathy in patient counseling.</p> <p>1.2.2. Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities.</p> <p>1.2.3. Apply the ethics of medical practice when dealing with patients and colleagues.</p> <p>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.</p> <p>1.2.5. Identify the approach for management of difficult communication including</p>
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.	<p>1.4.1. Perform meticulous general examination before and after radiotherapy and chemotherapy.</p> <p>1.4.2. Perform detailed local examination before and after radiotherapy and chemotherapy.</p> <p>1.4.3. Interpret the clinical signs of different oncology cases.</p> <p>1.4.4. Apply the ethics of medical practice when examining patients.</p> <p>1.4.5. Apply proper infection control when dealing with patients.</p>
1.5 Prioritize issues to be addressed in a patient encounter.	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different oncology cases.</p> <p>1.5.2. Prioritize problems while dealing with oncology cases.</p>
1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	<p>1.6.1. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p> <p>1.6.2. Interpret a pathology report in an accurate manner that helps for chemotherapy, hormonal and targeted therapy decision.</p>

	<p>1.6.3. Interpret basic figures in different nuclear scan.</p> <p>1.6.4. Relate basics of nuclear activity to differentiate cancer types.</p> <p>1.6.5. Relates basics of biopsy types and image modalities with different cancer types.</p>
<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Work with other healthcare professionals in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>
<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Identify the etiology of different types of malignant tumors.</p> <p>1.8.2. Identify different methods of diagnosis, different biopsy types, role of molecular tests and certain investigations specific to different types of cancer.</p> <p>1.8.3. Recognize the difference between prognostic and predictive factors of cancer.</p> <p>1.8.4. Identify the basic tools for cancer prevention.</p> <p>1.8.5. Identify parameters of follow up of long-term survivors and assessment tools in oncology.</p> <p>1.8.6. Identifies different types of chemotherapy drugs.</p> <p>1.8.7. Identifies chemotherapy drugs toxicity.</p> <p>1.8.8. Identify main classifications, indications of hormonal and targeted therapy.</p> <p>1.8.9. Describe and discuss the different mechanisms of actions and toxicities of different hormonal and targeted therapies.</p> <p>1.8.10. Justify different nuclear diagnosis types suitable for different diseases</p> <p>1.8.11. Identify what are radioactive isotopes applications in the field of oncology, diagnostic and therapeutic nuclear testing, Hazards and Protection in nuclear medicine.</p> <p>1.8.12. Identify definition of palliative care</p> <p>1.8.13. Determine type of patients in need for palliative care</p>

	<p>1.8.14. List manipulations and palliative measures that can be offered to patients and their families</p> <p>1.8.15. Classify types of radiation therapy used in cancer treatment</p> <p>1.8.16. Identify how radiation interact with human tissues</p> <p>1.8.17. Discuss mechanism of radiation production</p> <p>1.8.18. Describe techniques of radiotherapy.</p> <p>1.8.19. Side effects of Radiation Therapy</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. Integrate the results of history, physical and laboratory tests into a correct diagnosis and create an individualized treatment plan.</p> <p>1.10.2. Evaluate patients' conditions and identify who is candidate for palliation.</p> <p>1.10.3. Interpret the principles of patient simulation, contouring and planning in radiotherapy department.</p>
<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up-to-date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.8. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.</p>

	<p>1.13.9. Evaluate risk /benefit of any intervention to tailor the management plan with minimum risk to the patient.</p> <p>1.13.10. Apply screening programs in oncology and early detection of the familial cancers.</p> <p>1.13.11. Formulate a planning program for cancer control.</p> <p>1.13.12. Correlate patients' clinical features with their basic treatment needs from palliative care point of view</p> <p>1.13.13. Relate basics of radiation therapy with the planning techniques</p>
<p>1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1. Perform first aid management for acute reactions due to chemotherapy or targeted therapy.</p>

Competency Area 3: The graduate as a professional.

Key competency	Module LOs
<p>3.1 Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.</p>	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>
<p>3.4 Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural or ethnic backgrounds, or their disabilities.</p>	<p>3.4.1 Demonstrate respect to social, culture, and ethnic difference of patients treating them equally.</p>
<p>3.8 Refer patients to the appropriate health facility at the appropriate stage.</p>	<p>3.8.1 Identify the rules of referral for complex and undiagnosed cases</p>

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 either 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



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III. Module Contents:

Theoretical	
Basics of Cancer Diagnosis & Early Detection	1 hour
Basics of Chemotherapy.	1 hour
Basics of Targeted and Hormonal Therapy.	1 hour
Basics of Radiotherapy.	1 hour
Basics of nuclear medicine.	1 hour
Basics of Palliative Care.	1 hour
Total	6
Practical	
Topic	Teaching Hours
Identify the component and the team of chemotherapy unit	1.5 hr
How to manage chemotherapy toxicity (real and simulated patients)	1.5 hr
Identifications the team and the components of radiotherapy unit	1.5 hr
Identify how the patient receives the radiation session	1.5 hr
Identify the team and the component of nuclear medicine unit	1.5 hr
How to read a report of bone scan, renogram and thyroid scan.	1.5 hr
Total	9

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- Summative Assessment methods and schedules:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	10	40%
Final Practical exam.	7.5	30%
Activities	7.5	30%
Total	25	100%

E- Grading for by GPA System:

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

VI. List of references and resources:

- Module handout.
- Essential Books:
 - Basics of Oncology 2009th Edition. By: Frederick O. Stephens, Karl Reinhard Aigner. Springer, 2009.
 - The Basic Science of Oncology, Sixth Edition 5th Edition. By: Ian Tannock, Richard Hill, Robert Bristow, Lea Harrington. McGraw Hill / Medical, 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						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Self-directed study	Formative Assessment		Summative Assessment				
								Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.2	1.2.1 to 1.2.5			x		x			x		x			x
1.4	1.4.1 to 1.4.5					x			x		x	x		x
1.5	1.5.1, 1.5.2	x	x	x	x	x	x	x	x	x	x		x	x
1.6	1.6.1 to 1.6.5	x	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 1.8.19	x	x	x	x		x	x		x		x	x	x



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1.10	1.10.1 to 1.10.3			X	X	X	X	X	X	X	X		X	X
1.13	1.13.1 to 1.13.13-			X		X	X	X	X	X	X		X	
1.15	1.15.1			X		X		X	X	X	X		X	X
2.9	2.9.1					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		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

<u>Module Coordinator:</u>	<u>Program Coordinator:</u>
Name: Dr Reham Abdelaziz Signature: Dr Reham Abdelaziz	Name: Prof. Dr. Zeinab Kasemy Signature: Prof. Dr. Zeinab Kasemy

Clinical Psychology

University: Menoufia

Faculty: Medicine

A-Administrative information

Title: Clinical psychology

Code No: PSYCH 3208

Department offering the Module : Neuropsychiatry

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

Academic year/level: Third level

Semester: Semester

Date of specification: 2018.

Date of approval by Department Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 1 credit hour/ Longitudinal

Teaching Hours: 15 hours/ Lectures

	Teaching hours		
	Lectures	Practical	Activities
Neuropsychiatry Department	6	9	18

- 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.	<p>1.1.1. Take good history about different emotional symptom according to their age group.</p> <p>1.1.2. Take good history about different thinking symptom according to their age group.</p> <p>1.1.3. Take a good history about different cognitive signs.</p>
1.2	Adopt an empathic and holistic approach to the patients and their problems.	<p>1.2.1. Demonstrate empathy in patient counseling.</p> <p>1.2.2. Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities.</p> <p>1.2.3. Apply the ethics of medical practice when dealing with patients and colleagues.</p> <p>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.</p> <p>1.2.5. Identify the approach for management of difficult communication including</p>
1.3	Assess the mental state of the patient.	<p>1.3.1. Perform correct clinical assessment of normal and abnormal continuum.</p> <p>1.3.2. Perform correct clinical examination for cognition</p> <p>1.3.3. Perform correct clinical examination for behavior.</p>

		<p>1.3.4. Perform correct clinical examination and make a diagnostic approach and treatment plan for cognitive behavioral therapy.</p> <p>1.3.5. Interpret different stages of development and measure t's positive and negative outcomes.</p> <p>1.3.6. Report clinical uses of cognitive distortions and its implication in cognitive behavioral therapy.</p> <p>1.3.7. Interpret cognitive and behavioral aspects of behavior.</p> <p>1.3.8. Analyze different cognitive and behavioral problem to plan for efficient cognitive behavioral therapy.</p> <p>1.3.9. Interpret psychological assessment for memory, attention, working memory, emotion, thinking, cognitive distortions investigations of different age group.</p> <p>1.3.10. Formulate the management of cognitive and behavioral problems.</p> <p>1.3.11. Interpret investigations of memory, attention, working memory, emotion, thinking, cognitive distortions.</p> <p>1.3.12. Analyze individual cognitive distortion.</p> <p>1.3.13. Interpret the intelligent quotient.</p> <p>1.3.14. Formulate a differential diagnosis of emotions</p> <p>1.3.15. Formulate a differential diagnosis of thinking</p> <p>1.3.16. Formulate a differential diagnosis of cognition</p> <p>1.3.17. Formulate a differential diagnosis of defense mechanisms.</p> <p>1.3.18. Report cognitive behavioral therapy management plan of an anxious patient</p> <p>1.3.19. Report cognitive behavioral therapy management plan of depressed patient</p>
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.	<p>1.7.1. Work with other healthcare professionals in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>

<p>1.8</p>	<p>Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<ol style="list-style-type: none"> 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 characteristics. 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 correlation 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.
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	<p>1.8.20. Describe the health services for awareness of the different groups of the population with normality and abnormality of thinking.</p> <p>1.8.21. Identify social health services for improving population awareness.</p> <p>1.8.22. Identify common cognitive problems among different age groups.</p> <p>1.8.23. Identify component of cognitive examinations</p> <p>1.8.24. Recognize the importance of memory, attention, and exudative functions in healthy study.</p> <p>1.8.25. List components and definitions of each cognitive function.</p> <p>1.8.26. Recognize the importance of periodic cognitive examination for early detection of diseases and prevention.</p> <p>1.8.27. Identify common cognitive problems among different age groups.</p> <p>1.8.28. List steps for proper cognitive examination</p> <p>1.8.29. Identify components of psychological testing of intelligence.</p> <p>1.8.30. Recognize the role of psychiatrists in prevention and management of memory and executive problems in children , adolescents, and geriatric</p> <p>1.8.31. Outline the definitions of different cognitive distortion.</p> <p>1.8.32. Outline the classifications of different defense mechanisms.</p> <p>1.8.33. Recognize clinical importance of detecting cognitive distortion and its implication in preventing psychiatric diseases as a risk factors of them</p> <p>1.8.34. Identify the difference between healthy and unhealthy defense mechanisms</p> <p>1.8.35. Describe the health services for awareness of the different groups of the population with normality and abnormality of behavior</p> <p>1.8.36. Identify the social health services for improving population awareness with cognitive distortions to improve quality of life and improve economic outcomes.</p>
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<p>1.13</p>	<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.8. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients</p> <p>1.13.9. Apply Cognitive behavioral program on different psychological problems.</p> <p>1.13.10. Conduct counselling session with a normal population.</p> <p>1.13.11. Diagnose and manage common health problems among different age groups.</p> <p>1.13.12. Practice health maintenance and disease prevention for different age group.</p> <p>1.13.13. Formulate the way of management of cognitive part of cognitive behavioral therapy</p> <p>1.13.14. Formulate the way of management of behavioral part of cognitive.</p> <p>1.13.15. Formulate cognitive treatment of a depressed patient by cognitive behavioral therapy</p> <p>1.13.16. Formulate behavioral treatment of a depressed patient by cognitive behavioral therapy</p> <p>1.13.17. Formulate the management of memory</p> <p>1.13.18. Interpret investigations of attention</p> <p>1.13.19. Formulate management of Working memory</p> <p>1.13.20. Formulate psychosocial, cognitive, moral development counseling</p> <p>1.13.21. Design health educational messages for different age groups.</p> <p>1.13.22. Choose the appropriate screening test for each age group.</p> <p>1.13.23. . Organize cognitive behavioral therapy sessions.</p>
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		1.13.24. Correlate between age and need of screening psychosocial, cognitive, moral among different age group.
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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 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 either 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	
Affective aspect of behaviour	1
Cognitive aspect of behaviour	1
Thinking and perceptual aspect of behaviour	1
Cognitive distortions and defense mechanisms	1
Psychosocial, cognitive and moral development	1
Basics of cognitive behavioral therapy	1
Total	6
Practical	
Topic	Teaching Hours
How to examine different normal and abnormal emotions and their assessment by psychological testing	1.5

How to examine different normal and abnormal thinking and their assessment by psychological testing	1.5
How to examine different normal and abnormal cognition and their assessment by psychological testing	1.5
How to examine different normal and abnormal perception and their assessment by psychological testing	1.5
Clinical cognitive part of cognitive behavioural therapy	1.5
Clinical behavioural part of cognitive behavioural therapy	1.5
Total	9

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

2. 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes 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
Regular Evaluation	30%	10% written at the end of and periodicals including problem-solving, multiple-choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, Research.	During the module
Final practical exam	30%	OSCE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple-choice questions, give a reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	10	40%
Final Practical exam.	7.5	30%
Activities	7.5	30%
Total	25	100%

E- Grading for by GPA System:

The Percentage	Symbols	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						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Clinical Rounds	Self-directed study	Formative Assessment		Summative Assessment				
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



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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

<u>Module Coordinator:</u>	<u>Program Coordinator:</u>
Name: Dr Afaf Zein Elabideen	Name: Prof. Dr. Zeinab Kasemy

Vertical Integration Module (6)

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Vertical Integration Module (6)

Department offering the Module: Internal Medicine

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

Academic year/level: Third level

Semester: Semester VI

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 0.5 credit hour/ Longitudinal

	Lectures
Internal medicine Department	7.5 h

B- Professional Information

I – Aim of the Module:

To provide the students with the clinical skills of history taking of different symptomatology, interpreting the examination of the patient, and a final diagnosis of the patient while using effective communication skills.

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. Describe the different items in history taking. 1.1.2. Identify the important questions to ask for the patient with chest pain 1.1.3. Identify the important questions to ask for the patient with thyroid swelling 1.1.4. Identify the important questions to ask for the patient with bowel habit changes 1.1.5. Identify the important questions to ask for the patient with weight loss
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
1.4 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. Describe his approach to patient with different complaints and different examination findings 1.4.2. Interpret the patient examination findings especially the vital signs 1.4.3. Apply the ethics of medical practice when examining patients. 1.4.4. Apply proper infection control when dealing with patients.
1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1. Apply priority setting while formulating a differential diagnosis for different cases.
1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	1.6.1. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness. 1.6.2. Interpret laboratory and radiological investigations of any patient.

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.
1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	1.10.1. Integrate the results of history, physical and laboratory tests into a correct diagnosis and create an individualized treatment plan. 1.10.2. Differentiate between different causes of neck swelling
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. Share patients or their caregivers in decision making regarding management plans. 1.13.4. Gather and organize material from various sources (including library, electronic and online resources).

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while dealing with patients



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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 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.	6.3.2 Use information resources either written or electronic efficiently for the educational process.
6.6 Effectively manage learning time and resources and set priorities.	6.6.1 Manage time and learning resources effectively. 6.6.2 Apply priority setting in the learning process

III. Module Contents:

Topic	Teaching hours
Approach to patient with chest pain	1
Approach to patient with loss of wight	1
Approach to patient with thyroid sweeling	1.5
Interpretation of the patient examination	2
Interpretation of patient investigations	2
Total	7.5

IV– Teaching and learning methods

The following teaching / learning methods are used to promote better understanding:

- **Interactive Lectures/online**
 - **Self-directed learning.**
- **Interactive lectures:** In large groups, the lecturer introduces a topic or common clinical conditions and explains the underlying topic through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.
- **Self-directed learning:** Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problemsolving

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments:

- Final-term examination: 100 % (12.5 marks)

VI. List of references and resources:

- **Module notes.**
- **Essential Books:**



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- The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.
- Decision Making in Medicine 3rd Edition. By: Stuart B. Mushlin, Harry L. Greene. Mosby, 2009.

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.

<u>Module Coordinator:</u>Dr. Enas Zahran	<u>Program Coordinator:</u> Prof. Dr. Zeinab Kasemy
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Semester VII



Menoufia Faculty of Medicine
Abt. Endocrinology



Endocrinology and Breast Module

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Endocrinology and Breast

Code No: ENDO/BR 4102

Department offering the Module : General Surgery, Internal Medicine and Pediatrics departments

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

Academic year: 4th Year

Semester: Seventh semester

Date of specification: 2020

Date of approval by Departments Council: 2020

Date of approval by Faculty Council: 2020

Credit hours: 5 credit hours/ 4 weeks

	Teaching hours		
	Lectures	Practical	Activities
Surgery	12	18	36
Internal medicine	9	13.5	27
Pediatrics	6	9	18
Total	27	40.5	81

- Professional Information

1 – Aim of the Module

To provide the students with knowledge and clinical skills regarding different endocrine and breast disorders regarding their underlying pathology, presentation, and differential diagnosis to develop management plan for the “whole patient” including health promotion, disease prevention and long-term management for both adults and pediatric age groups.



II- Learning Outcomes of the Module:

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

Key competency	Module ILOs
1.1 Take and record a structured, patient-centered history.	1.1.1. Conduct thorough history taking and clinical examination of different thyroid diseases including simple nodular goiter, thyroid hypofunction and hyperfunction and thyroid neoplasms. 1.1.2. Conduct thorough history taking for a case of diabetes mellites. 1.1.3. Practice assessment of functional, psychological and cognitive functions of children during puberty 1.1.4. Conduct thorough history taking for a case benign lesion of the breast. 1.1.5. Conduct thorough history taking for a case malignant tumor of the breast. 1.1.6. Interpret the clinical symptoms of different breast and endocrinological cases 1.1.7. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.8. Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.9. Perform effective eye contact, active listening, and appropriate body language. 1.1.10. Record clinical data in a complete, accurate and retrievable manner. 1.1.11. Present information clearly in written, electronic, and verbal forms.
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. Practice patient education during an interview with the patient. 1.2.5. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community. 1.2.6. Identify the approach for management of difficult communication including breaking bad news.

<p>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.</p>	<p>1.4.1. Conduct thorough clinical examination of different thyroid diseases including simple nodular goiter, thyroid hypofunction and hyperfunction and thyroid neoplasms.</p> <p>1.4.2. Differentiate clinically between the midline and lateral swellings of the neck.</p> <p>1.4.3. Evaluate short child and design their health services.</p> <p>1.4.4. Calculate and interpret midparenteral height value.</p> <p>1.4.5. Assess nutritional status in children</p> <p>1.4.6. Conduct thorough clinical examination for a case of diabetes mellites.</p> <p>1.4.7. Conduct thorough clinical examination for a case benign lesion of the breast.</p> <p>1.4.8. Conduct thorough clinical examination for a case malignant tumor of the breast.</p> <p>1.4.9. Demonstrate clinical findings in cases of pituitary dysfunction.</p> <p>1.4.10. Demonstrate clinical findings in cases of adrenal dysfunction.</p> <p>1.4.11. Demonstrate professional interpersonal communications with patients, colleagues and other medical staff at the training hospitals</p> <p>1.4.12. Interpret the clinical signs of different breast and endocrinological cases.</p> <p>1.4.13. Apply the ethics of medical practice when examining patients.</p> <p>1.4.14. Apply proper infection control when dealing with patients.</p>
<p>1.5 Prioritize issues to be addressed in a patient encounter.</p>	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different breast and endocrinological cases</p> <p>1.5.2. Formulate a management plan for different breast and endocrinological disorders with priority for emergent situations.</p>
<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>	<p>1.6.1. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p> <p>1.6.2. Interpret different the findings of different imaging and laboratory investigations for diagnosis of endocrine and breast disorders</p>

1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	1.7.1. Work with other healthcare professions in management of undiagnosed cases. 1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.
1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	1.8.1. Illustrate anatomical basics of endocrine system and breast 1.8.2. Recognize physiology of endocrine system, and pharmacology related to endocrine and metabolic diseases and breast 1.8.3. Describe the pathogenesis, clinical manifestations, diagnosis of and treatment of panhypopituitarism and diabetes insipidus 1.8.4. Describe the pathogenesis, clinical manifestations, diagnosis of and treatment of acromegaly and hyperprolactinemia 1.8.5. Differentiate between different causes of short stature regarding pathogenesis, clinical manifestations, diagnosis of and treatment 1.8.6. Describe the pathogenesis, clinical manifestations, diagnosis of and treatment of simple nodular goiter 1.8.7. Discuss thyroid gland hyperfunction and hypofunction (including congenital) and thyroiditis regarding pathogenesis, clinical manifestations, diagnosis of and treatment 1.8.8. Classify thyroid neoplasms and discuss their pathogenesis, clinical manifestations, diagnosis of and treatment 1.8.9. Discuss adrenal gland hyperfunction including Cushing's syndrome, pheochromocytoma and hyperaldosteronism regarding their pathogenesis, clinical manifestations, diagnosis of and treatment 1.8.10. Discuss congenital adrenal hyperplasia regarding pathogenesis, clinical manifestations, diagnosis of and treatment 1.8.11. Describe ambiguous genitalia regarding etiology, clinical types, diagnosis and treatment 1.8.12. Identify puberty for males and females with their physiological backgrounds 1.8.13. Discuss adrenal gland hypofunction regarding pathogenesis, clinical manifestations, diagnosis of and treatment 1.8.14. Identify adrenal incidentaloma and its management 1.8.15. Identify calcium homeostasis, hypercalcemia and hypocalcemia regarding causes, manifestations, and their management.

- 1.8.16. Discuss hyperparathyroidism regarding types, etiological factors, clinical manifestations, diagnosis of and treatment
- 1.8.17. Describe hypoparathyroidism regarding, etiological factors, clinical manifestations, diagnosis of and treatment
- 1.8.18. Recognize the physiology of the endocrine pancreas and classify diabetes mellitus
- 1.8.19. Discuss Type I diabetes mellitus regarding etiology, clinical presentation, diagnosis, complications including diabetic keto acidosis and treatment
- 1.8.20. Discuss Type II diabetes mellitus regarding etiology, clinical presentation, diagnosis, complications and treatment
- 1.8.21. Identify obesity in children and describe its etiology, presentation, diagnosis and treatment
- 1.8.22. Describe tumors of the endocrine pancreas and regarding their clinical presentation, diagnosis and treatment
- 1.8.23. Discuss different nipple disorders regarding their etiology, presentation and treatment
- 1.8.24. Describe traumatic lesions of the breast regarding their clinical presentation, diagnosis and treatment
- 1.8.25. Describe inflammation lesions of the breast regarding their etiology, clinical presentation, diagnosis and treatment.
- 1.8.26. Describe lesions related to aberration of normal development of the breast regarding their etiology, clinical presentation, diagnosis and treatment.
- 1.8.27. Identify benign tumors of the breast and discuss their clinical presentation, diagnosis and treatment
- 1.8.28. Classify malignant tumors of the breast and discuss their risk factors, pathological types, clinical presentation, diagnosis and treatment with emphasis on their screening and prevention.

1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

- 1.10.1. Evaluate clinical presentations of different endocrine and breast disorders to formulate a differential diagnosis

1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.

- 1.11.1 Practice random blood glucose level assessment.

<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Formulate treatment plans for different endocrine and breast disorders.</p> <p>1.13.5. Construct preventive plan and screening programs for early detection of different endocrine and breast disorders.</p> <p>1.13.6. Predict prognosis for malignant neoplasms of the thyroid, parathyroid, adrenal, endocrine pancreas and breast.</p> <p>1.13.7. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.8. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.9. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.10. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.11. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients</p>
<p>1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1. Provide first aid measures for different cases of diabetic coma.</p> <p>1.15.2. Evaluate cases of endocrine emergencies including thyrotoxicosis and Addisonian crisis.</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
<p>2.9 Adopt suitable measures for infection control.</p>	<p>2.9.1 Apply infection control measures while dealing with patients</p>

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 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 either 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
Applied anatomy of thyroid gland. Classification of thyroid enlargement Simple nodular goiter	1	General Surgery
Midline and lateral neck swelling	1	General Surgery
Thyroid tumors	1	General Surgery
Management of solitary thyroid nodule Surgical management of thyroid diseases	1	General Surgery
Primary hyperparathyroidism	1	General Surgery
Anatomy of the breast Nipple disorders Traumatic breast lesions	1	General Surgery
Inflammatory lesions of the breast	1	General Surgery
Aberration of normal development and involutions (Fibroadenosis) Benign tumors of the breast	1	General Surgery
Adrenal tumors Surgery for the adrenal gland	1	General Surgery
Malignant tumors of the breast I	1	General Surgery
Malignant tumors of the breast (cont.) II	1	General Surgery
Tumors of endocrine pancreas	1	General Surgery
Panhypopituitarism. Diabetes insipidus	1	Internal Medicine
Acromegaly. Hyperprolactinemia	1	Internal Medicine
Thyroid hypofunction Thyroiditis	1	Internal Medicine
Thyroid hyperfunction	1	Internal Medicine
Physiology of parathyroid gland Calcium homeostasis Hypoparathyroidism Secondary and tertiary hyperparathyroidism	1	Internal Medicine

Adrenal gland physiology	1	Internal Medicine
Adrenal gland hyperfunction; Cushing's syndrome, pheochromocytoma, primary hyperaldosteronism		
Adrenal hypofunction	1	Internal Medicine
Physiology of the endocrine pancreas	1	Internal Medicine
Classification of diabetes mellitus		
Type II diabetes mellitus		
Complications of diabetes mellitus	1	Internal Medicine
Introduction to endocrine system, function, and control.	1	Pediatrics
Short stature		
Congenital hypothyroidism	1	Pediatrics
Screening		
Puberty	1	Pediatrics
Ambiguous genitalia	1	Pediatrics
Congenital adrenal hyperplasia		
Type I diabetes mellitus	1	Pediatrics
Diabetic ketoacidosis (DKA)		
Obesity in children	1	Pediatrics
Total	27	
Clinical		
Topic	Teaching Hours	Department
Neck swelling 1	1.5	General Surgery
Neck swelling 2	1.5	General Surgery
Thyroid tumors 1	1.5	General Surgery
Thyroid tumors 2	1.5	General Surgery
Solitary thyroid nodule 1	1.5	General Surgery
Solitary thyroid nodule 2	1.5	General Surgery
Benign breast lesions 1	1.5	General Surgery
Benign breast lesions 2	1.5	General Surgery
Breast Cancer 1 / bleeding per nipple	1.5	General Surgery
Breast cancer 2	1.5	General Surgery

Revision 1	1.5	General Surgery
Revision 2	1.5	General Surgery
Introduction to endocrinology	1.5	Internal Medicine
Panhypopituitarism and acromegaly	1.5	Internal Medicine
Thyroid 1	1.5	Internal Medicine
Thyroid 2	1.5	Internal Medicine
Adrenal gland	1.5	Internal Medicine
Diabetes 1	1.5	Internal Medicine
Diabetes 2	1.5	Internal Medicine
Diabetic Complications 1	1.5	Internal Medicine
Diabetic Complications 2	1.5	Internal Medicine
Short stature 1	1.5	Pediatrics
Short stature 2	1.5	Pediatrics
Congenital hypothyroidism and neonatal screening	1.5	Pediatrics
Ambiguous genitalia	1.5	Pediatrics
Congenital adrenal hyperplasia	1.5	Pediatrics
Obesity in pediatrics	1.5	Pediatrics
Total	40.5	

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

b) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

c) Bedside clinical teaching

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes 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
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, Research.	During the module
Final practical exam	30%	OSCE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	45	40%
Final Practical exam.	33.75	30%
Activities	33.75	30%
Total	112.5	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 the Module
- Essential Books:

General Surgery:

- The Washington Manual of Surgery (Lippincott Manual Series), 7th Edition. By: Mary E. Klingensmith LWW, 2016
- Surgery: A Case Based Clinical Review 1st Edition. By: Christian De Virgilio, Areg Grigorian, Paul N. Frank. Springer Nature, 2015.
- Current Diagnosis and Treatment Surgery 14th edition. By: Gerard Doherty. McGraw Hill / Medical, 2015.
- Essentials of General Surgery 5th Edition. By: Lawrence, Peter F., Bell, Richard M. Dayton, Merrill T., Hebert, James C., Mohammed I. Ahmed. Lippincott Williams & Wilkins, 2012.

Pediatrics:

- Nelson Textbook of Pediatrics, 20th Edition. By: Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme, Nina F Schor. W B Saunders Co Ltd, 2015.
- American Academy of Pediatrics Textbook of Pediatric Care, 2nd Edition. By: Thomas K. McInerney, Henry M. Adam, Deborah E. Campbell, Thomas G. DeWitt, Dr. Jane Meschan Foy, Dr. Deepak M. Kamat. American Academy of Pediatrics, 2016.
- Schwartz's Clinical Handbook of Pediatrics (Point (Lippincott Williams & Wilkins)) 5th Edition. By: Joseph J. Zorc, Elizabeth R. Alpern, Lawrence W. Brown, Kathleen M. Loomes, Bradley S. Marino, Cynthia J. Mollen, Leslie J. Raffini. LWW, 2012.



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Internal Medicine:

- The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.
- CURRENT Medical Diagnosis and Treatment, 56th Edition. By: Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow. McGraw-Hill Education / Medical ,2017.
- Harrison's Principles of Internal Medicine 19th Edition and Harrison's Manual of Medicine 19th Edition. By: J. Larry Jameson, Anthony Fauci, Dennis Kasper, Stephen Hauser, Dan Longo, Joseph Loscalzo. McGraw-Hill Education / Medical, 2017.
- Goldman-Cecil Medicine, 25th Edition. By: Lee Goldman, Andrew I. Schafer. Elsevier; 2015.

VII. List of references and resources:

- 1- Faculty Lecture halls
- 2- Faculty library for textbooks & electronic library for web search.
- 3- Audiovisual aids as boards, data show and computers.
- 4- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods							Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Self-directed study	Formative Assessment		Summative Assessment				
									Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.11					X	X			X		X	X		X
1.2	1.2.1 to 1.2.6			X		X	X			X		X			X
1.4	1.4.1 to 1.4.14					X	X			X		X	X		X
1.5	1.5.1, 1.5.2	X	X	X	X	X		X	X	X	X	X		X	X
1.6	1.6.1, 1.6.2	X	X	X	X	X	X	X	X	X	X	X		X	
1.7	1.7.1, 1.7.2			X		X			X		X				
1.8	1.8.1 to 1.8.28	X	X	X	X			X	X		X		X	X	X
1.10	1.10.1			X	X	X		X	X	X	X	X		X	X
1.11	1.11.1					X	X			X		X			X
1.13	1.13.1 to 1.13.11			X		X		X	X	X	X	X		X	
1.15	1.15.1, 1.15.2			X		X	X		X	X	X	X		X	X
2.9	2.9.1					X	X			X		X			X
3.1	3.1.1 to 3.1.2					X	X			X		X			X
3.4	3.4.1					X	X			X		X			X
3.8	3.8.1					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:

Name: Prof. Mahmoud Hagag

Signature: Prof. Mahmoud Hagag

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Signature: Prof. Dr. Zeinab Kasemy

Clinical Haematology

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Clinical hematology

Code No: HEMA 4103

Department offering the Module: Internal medicine, Pediatrics, and General surgery

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

Academic year/level: Fourth level

Semester: Semester VII

Date of specification: 2018.

Date of approval by Departmental and Faculty Council: 2018

Credit hours: 2.5 credit hours/ 2 weeks

Teaching hours			
	Lectures	Practical	Activities
<i>Internal medicine</i>	6	9	18
<i>Pediatrics</i>	6	9	18
<i>General surgery</i>	3	4.5	9
Total	15	22.5	45

B- Professional Information

I – Aim of the Module:

To provide the students with clinical knowledge and skills regarding clinical hematology in different age groups and from medical and surgical perspectives, preparing them to formulate a management plan for different hematological disorders with emphasis on hematological emergencies.



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 a comprehensive history from different hematological cases 1.1.2. Interpret the clinical symptoms of different hematological cases 1.1.3. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.4. Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.5. Perform effective eye contact, active listening, and appropriate body language. 1.1.6. Record clinical data in a complete, accurate and retrievable manner. 1.1.7. Present information clearly in written, electronic, and verbal forms.
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. Practice patient education during an interview with the patient. 1.2.5. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community. 1.2.6. Identify the approach for management of difficult communication including breaking bad news.

<p>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.</p>	<p>1.4.1. Apply steps of abdominal and lymph nodes examination including inspection, palpation, percussion and auscultation</p> <p>1.4.2. Interpret the clinical signs of different haematological cases.</p> <p>1.4.3. Apply the ethics of medical practice when examining patients.</p> <p>1.4.4. Apply proper infection control when dealing with patients.</p>
<p>1.5 Prioritize issues to be addressed in a patient encounter.</p>	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different haematological cases.</p> <p>1.5.2. Formulate a management plan for different haematological disorders with priority for emergent situations.</p>
<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>	<p>1.6.1. Choose the proper investigations according to the guidelines while taking cost-effectiveness into consideration.</p> <p>1.6.2. Interpret common hematologic investigations such as CBC, blood film, bone marrow aspirate, protein electrophoresis, and immunophenotyping.</p>
<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Work with other healthcare professions in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p>
<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Classify nutritional anemias, and their approach for management.</p> <p>1.8.2. Describe acute hemolysis and bone marrow failure.</p> <p>1.8.3. Describe chronic hemolytic anemias in pediatrics.</p> <p>1.8.4. Outline an approach to a child with anemia.</p> <p>1.8.5. Classify chronic hemolytic anemias, with their clinical picture, and treatment.</p> <p>1.8.6. Define paroxysmal nocturnal hemoglobinuria with its clinical picture, and treatment,</p> <p>1.8.7. Define aplastic anemia and bone marrow failure.</p> <p>1.8.8. Discuss myelodysplastic syndrome with different risk factors and management.</p> <p>1.8.9. Identify the normal of different parameters of complete blood picture.</p>

- 1.8.10. Discuss the indications, precautions, and complications of blood transfusion.
- 1.8.11. Outline the differential diagnosis of thrombocytopenic and non-thrombocytopenic purpura.
- 1.8.12. Describe Idiopathic Thrombocytopenic Purpura in pediatrics, its clinical picture and approach for treatment.
- 1.8.13. Discuss hemophilia with its approach of management,
- 1.8.14. Outline an approach to a child with bleeding tendency.
- 1.8.15. Identify thrombophilia & thrombosis with their complications, and treatment.
- 1.8.16. Discuss acute leukemia in pediatrics.
- 1.8.17. Discuss lymphomas in pediatrics.
- 1.8.18. Define Wilms tumor and neuroblastoma with their clinical picture and treatment.
- 1.8.19. Classify chronic leukemia with clinical picture and approach for management.
- 1.8.20. Define multiple myeloma with clinical picture and approach for management.
- 1.8.21. Classify myeloproliferative neoplasms.
- 1.8.22. Identify bone marrow transfusion basics.
- 1.8.23. List causes of huge splenomegaly.
- 1.8.24. Define hypersplenism, describe pathology and management.
- 1.8.25. Differentiate causes of lymphadenopathy describe tuberculous lymphadenitis and identify the role of surgery in lymphoma.
- 1.8.26. Describe splenectomy procedure (indications, preoperative preparation, steps, post operative follow up and complications).
- 1.8.27. Define lymphedema,
- 1.8.28. Describe pathology and management of Filarial Lymphedema.

1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

- 1.10.1. Analyse symptoms & signs and results of investigations to construct a differential diagnosis for common presenting complaints.
- 1.10.2. Design an appropriate diagnostic plan for evaluation of presenting complaints which is appropriate in terms of the differential diagnosis, the severity of the clinical situation and the risks, benefits, and costs to the patient.

1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.	1.11.1. Demonstrate the steps of bone marrow biopsy
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. Formulate a management plan for different hematological emergencies. 1.13.5. Share patients or their caregivers in decision making regarding management plans. 1.13.6. Gather and organize material from various sources (including library, electronic and online resources). 1.13.7. Apply the principles of using international guidelines and multidisciplinary team MDT. 1.13.8. Apply basics of scientific research (collection, analysis, and interpretation of data). 1.13.9. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.
1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	1.15.1. Evaluate adequately the patients with hematologic emergencies such as acute thrombosis, hemorrhage, anemia, and thrombocytopenia and need for urgent intervention.

Competency Area 2: The graduate as a health promoter.

Key Competency	Module Los
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while dealing with patients

Competency Area 3: The graduate as a professional.

Key competency	Module LOs
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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 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.	6.2.3 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 either 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

II. Module Contents:

Theoretical		
Topic	Teaching hours	Department
Splenomegaly & hypersplenism	1	General Surgery
Splenectomy	0.5	General Surgery
Lymphadenopathy	0.5	General Surgery
Lymphedema	1	General Surgery
Aplastic anemia and bone marrow failure	0.5	Internal Medicine
Myelodysplastic syndrome	0.5	Internal Medicine
CBC interpretation	0.5	Internal Medicine
Blood transfusion	0.5	Internal Medicine
Thrombophilia & thrombosis	1	Internal Medicine
Wilms tumour and neuroblastoma	0.5	Internal Medicine
Chronic leukemia	0.5	Internal Medicine
Multiple myeloma	0.5	Internal Medicine
Myeloproliferative neoplasms	1	Internal Medicine
BMT basics	0.5	Internal Medicine
DD of thrombocytopenic and non Thrombocytopenic purpura	0.5	Pediatrics
Nutritional anemias	0.5	Pediatrics
Acute hemolysis and bone marrow failure	0.5	Pediatrics
Chronic haemolytic anemias in pediatrics	0.5	Pediatrics
Approach to a child with anaemia	0.5	Pediatrics
Chronic haemolytic anemias	0.5	Pediatrics
Paroxysmal nocturnal hemoglobinuria	0.5	Pediatrics
ITP in pediatrics	0.5	Pediatrics
Hemophilia	0.5	Pediatrics
Approach to a child with bleeding tendency	0.5	Pediatrics
Acute leukemia in paediatrics	0.5	Pediatrics
Lymphomas in paediatrics	0.5	Pediatrics
Total	15	

Abdominal examination	1.5	General Surgery
L.N examination	1.5	General Surgery
Lymphoma	1.5	General Surgery
Acute hemolytic anemia	1.5	Internal Medicine
chronic hemolytic anemia	1.5	Internal Medicine
Aplastic anemia & neutropenic fever	1.5	Internal Medicine
Inpatient ward rotation	1.5	Internal Medicine
Spots	1.5	Internal Medicine
In patients ward rotation	1.5	Internal Medicine
Approach to child with chronic anemia 1	1.5	Pediatrics
Approach to child with chronic anemia 2	1.5	Pediatrics
Approach to bleeding in pediatrics	1.5	Pediatrics
ITP & hemophilia	1.5	Pediatrics
LN exam and approach to lymphadenopathy in children	1.5	Pediatrics
Pediatric oncology	1.5	Pediatrics
Total	22.5	

IV– Teaching and Learning Methods:

1. --Theoretical Teaching:

d) Interactive lectures: using

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

e) Case Based learning

f) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

3. Field Training

4. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment methods and schedule:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	25	40%
Final Practical exam.	18.75	30%
Activities	18.75	30%
Total	62.5	100%

E- Grading for by GPA System:

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

VI. List of references and resources:

- **Module Notes**
- **Essential Books:**

General Surgery:

- The Washington Manual of Surgery (Lippincott Manual Series), 7th Edition. By: Mary E. Klingensmith LWW, 2016
- Surgery: A Case Based Clinical Review 1st Edition. By: Christian De Virgilio, Areg Grigorian, Paul N. Frank. Springer Nature, 2015.
- Current Diagnosis and Treatment Surgery 14th edition. By: Gerard Doherty. McGraw Hill / Medical, 2015.
- Essentials of General Surgery 5th Edition. By: Lawrence, Peter F., Bell, Richard M. Dayton, Merrill T., Hebert, James C., Mohammed I. Ahmed. Lippincott Williams & Wilkins, 2012.

Pediatrics:

- Nelson Textbook of Pediatrics, 20th Edition. By: Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme, Nina F Schor. W B Saunders Co Ltd, 2015.
- American Academy of Pediatrics Textbook of Pediatric Care, 2nd Edition. By: Thomas K. McInerney, Henry M. Adam, Deborah E. Campbell, Thomas G. DeWitt, Dr. Jane Meschan Foy, Dr. Deepak M. Kamat. American Academy of Pediatrics, 2016.
- Schwartz's Clinical Handbook of Pediatrics (Point (Lippincott Williams & Wilkins)) 5th Edition. By: Joseph J. Zorc, Elizabeth R. Alpern, Lawrence W. Brown, Kathleen M. Loomes, Bradley S. Marino, Cynthia J. Mollen, Leslie J. Raffini. LWW, 2012.

Internal Medicine:

- The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.
- CURRENT Medical Diagnosis and Treatment, 56th Edition. By: Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow. McGraw-Hill Education / Medical ,2017.
- Harrison's Principles of Internal Medicine 19th Edition and Harrison's Manual of Medicine 19th Edition. By: J. Larry Jameson, Anthony Fauci, Dennis Kasper, Stephen Hauser, Dan Longo, Joseph Loscalzo. McGraw-Hill Education / Medical, 2017.
- Goldman-Cecil Medicine, 25th Edition. By: Lee Goldman, Andrew I. Schafer. Elsevier; 2015.



Menoufia Faculty of Medicine



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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods								Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Field training	Self-directed study	Formative Assessment		Summative Assessment				
										Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.7					X	X	X			X		X	X		X
1.2	1.2.1 to 1.2.6			X		X	X	X			X		X			X
1.4	1.4.1 to 1.4.4					X	X	X			X		X	X		X
1.5	1.5.1, 1.5.2	X	X	X	X	X		X	X	X	X	X	X		X	X
1.6	1.6.1, 1.6.2	X	X	X	X	X	X	X	X	X	X	X	X		X	
1.7	1.7.1, 1.7.2			X		X				X		X				
1.8	1.8.1 to 1.8.28	X	X	X	X			X	X	X		X		X	X	X
1.10	1.10.1, 1.10.2			X	X	X		X	X	X	X	X	X		X	X
1.11	1.11.1					X	X				X		X			X
1.13	1.13.1 to 1.13.9			X		X			X	X	X	X	X		X	
1.15	1.15.1			X		X	X			X	X	X	X		X	X
2.9	2.9.1					X	X				X		X			X
3.1	3.1.1 to 3.1.2					X	X				X		X			X
3.4	3.4.1					X	X				X		X			X
3.8	3.8.1					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:

Name: Dr. Rana Kamal Elden Wahb
Signature: Dr. Rana Kamal Elden Wahb

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy
Signature: Prof. Dr. Zeinab Kasemy

Cardiovascular and Chest Diseases

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Cardiovascular and Chest Diseases

Code No: CVS/CHEST 4101

Department offering the Module: Chest, Cardiology, Pediatric, Cardiothoracic, and Family medicine

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

Academic year/level: Forth level

Semester: Semester VII

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 7 credit hours

	Teaching hours		
	Lectures	Practical	Activities
Chest department	12	18	36
Cardiology	12	18	36
Pediatric	9	13.5	27
Cardiothoracic	6	9	18
Family medicine	3	4.5	9
Total	42	63	126

B- Professional Information

I. Aim of the Module:

To provide students with an clinical knowledge and skills covering the common and important cardiology and chest emergencies and diseases in pediatrics and adults including surgically managed

diseases and their approach of treatment along with essentials of cardiovascular risk assessment and smoking cessation as examples of anticipatory care.

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. Practice comprehensive history taking from an adult or pediatric patient with cardiovascular and chest disease 1.1.2. Interpret symptoms of different cardiovascular and chest diseases to reach the diagnosis 1.1.3. Deal with the patient rather than a lesion or a specimen. 1.1.4. Apply the legal and ethical standards during history taking.
1.2 Adopt an empathic and holistic approach to the patients and their problems.	1.2.1. Deal with the patient rather than a lesion or a specimen 1.2.2. Demonstrate empathy in patient counseling. 1.2.3. Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities. 1.2.4. Apply the ethics of medical practice when dealing with patients and colleagues. 1.2.5. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community. 1.2.6. Identify the approach for management of difficult communication.

<p>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.</p>	<p>1.4.1. Perform general examination of chest patients</p> <p>1.4.2. Perform local examination of chest (inspection, palpation, percussion and auscultation)</p> <p>1.4.3. Diagnose prosthetic valve thrombosis.</p> <p>1.4.4. Perform clinical examination of different age groups regarding the chest and heart</p> <p>1.4.5. Practice risk assessment in hypertensive patient</p> <p>1.4.6. Apply the rules of patient's rights during clinical examination.</p> <p>1.4.7. Distinguish tension pneumothorax patients in emergencies.</p> <p>1.4.8. Interpret the most important symptoms and signs of diseases in cardiac patients.</p> <p>1.4.9. Calculate LDL goal in patient with hyperlipidemia</p> <p>1.4.10. Analyze of the patient data accurately considering missing pieces.</p> <p>1.4.11. Interpret results of cardiovascular risk assessment of hypertensive patient.</p> <p>1.4.12. Apply the standards of patient safety and infection control during dealing with the patients in different clinical situations.</p>
<p>1.5 Prioritize issues to be addressed in a patient encounter.</p>	<p>1.5.1. Apply priority setting while selecting an investigation for different cases,</p> <p>1.5.2. Prioritize immediate action plans in critical cardiac conditions.</p>
<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>	<p>1.6.1. Select the appropriate diagnostic investigations for common cardiovascular and chest diseases in adults and pediatrics.</p> <p>1.6.2. Interpret chest X-ray in common chest diseases.</p> <p>1.6.3. Relate various radiological and laboratory abnormalities to the diagnosis of different chest diseases</p> <p>1.6.4. Interpret arterial blood gases</p> <p>1.6.5. Interpret the finding of radiological signs in different cases of chest trauma.</p> <p>1.6.6. Interpret ECG findings and their reflection of cardiac diseases.</p> <p>1.6.7. Recognize the patient's socioeconomic standard during investigation selection.</p>

<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Work with other healthcare professionals in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work</p>
<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. List physical examination components of adult or pediatric patients with cardiovascular and chest disease</p> <p>1.8.2. Describe clinical manifestations of bronchial asthma and recognize the different types, etiological factors, pathophysiology of BA.</p> <p>1.8.3. Define COPD with its risk factors, and clinical manifestations of COPD.</p> <p>1.8.4. Recognize pneumonia and common organisms causing pneumonia and atypical pneumonia</p> <p>1.8.5. Identify the types of pleural effusion, its etiology, pathophysiology of pleural effusion.</p> <p>1.8.6. Define lung abscess, pathogenesis pathogens causing lung abscess and recognize the risk factors for lung abscess.</p> <p>1.8.7. Identify bronchiectasis and its different types, pathophysiology, etiological factors and complications of bronchiectasis.</p> <p>1.8.8. Recognize predisposing factors of lung cancer, its different types, pathology, and clinical picture.</p> <p>1.8.9. Describe. ILDS and its predisposing factors, pathophysiology, different types, and clinical picture of ILDS</p> <p>1.8.10. Classify PHTN with their pathophysiology, risk factors of PHTN</p> <p>1.8.11. Identify SBD with types, etiology and risk factors of SBD</p> <p>1.8.12. Identify the etiology, pathophysiology, clinical picture of rheumatic fever.</p> <p>1.8.13. Recognize T.B and identify predisposing factors, methods of transmission, microbiology, pathogenesis of tuberculosis.</p> <p>1.8.14. Describe the clinical picture and complications of pulmonary and extrapulmonary T.B.</p> <p>1.8.15. Enumerate etiology of empyema, malignant pleural effusion, and pneumothorax.</p> <p>1.8.16. Discuss the impact of congenital and inherited diseases on children and their families.</p> <p>1.8.17. Identify the different upper respiratory tract disorders, its etiology, presentation and management</p> <p>1.8.18. Recognize cyanotic and acyanotic heart disorders and its management</p> <p>1.8.19. Recognize the heart failure in children</p>

- 1.8.20. Recognize the diagnose of rheumatic fever.
- 1.8.21. Define hyperlipidemia
- 1.8.22. Identify hazards of smoking.
- 1.8.23. Outline the presentation, and etiology of wheezy chest in pediatrics
- 1.8.24. Identify a plan of management for childhood asthma
- 1.8.25. Identify different types of pediatric pneumonia, its etiology, clinical picture, investigations and management
- 1.8.26. Outline causes of thoracic emergencies and how to diagnose each one.
- 1.8.27. Outline management of different cases of chest trauma.
- 1.8.28. Identify different between fracture ribs and flail chest.
- 1.8.29. Recognize the evolution of cardiac surgery
- 1.8.30. Explain the idea of cardiopulmonary bypass machine
- 1.8.31. Differentiate between arterial and venous grafts
- 1.8.32. List conduits options for CABG
- 1.8.33. State the applicability for off bump CABG
- 1.8.34. Recognizes the basic information of valve replacement.
- 1.8.35. Recognize the anticoagulation strategy for different valvular prosthesis
- 1.8.36. List types and agents of pleurodesis.
- 1.8.37. Outline management of different cases of chest trauma.
- 1.8.38. Identify and have a plan of management for childhood asthma
- 1.8.39. Identify management of pediatric pneumonia
- 1.8.40. Recognize the cyanotic and acyanotic heart disorders and its management
- 1.8.41. recognize the diagnosis and manage rheumatic fever.
- 1.8.42. List lifestyle modifications in hypertension.
- 1.8.43. recognize the follow up in hypertensive patient
- 1.8.44. List lifestyle modifications in hyperlipidemia.
- 1.8.45. Outline management of hyperlipidemia.
- 1.8.46. Outline different strategies to quit smoking

1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

- 1.10.1. Follow the proper order for the diagnostic steps including history, examination, and investigations in different cardiovascular and chest diseases
- 1.10.2. Integrate the findings of history, clinical examination, and investigations to reach an accurate diagnosis in relation to the patient complaint

	<p>1.10.3. Assess various risk factors for common cardiac conditions</p> <p>1.10.4. Select appropriate diagnostic strategies in acute and chronic chest diseases.</p> <p>1.10.5. Select clinical decisions regarding the main chest diseases</p> <p>1.10.6. Apply the principles of using international guidelines and MDT</p> <p>1.10.7. Interpret all the available data in the diagnostic process without disregard for minor or apparently irrelevant findings.</p>
1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.	<p>1.11.1. Perform and interpret ECG findings and their reflection of cardiac diseases</p>
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.	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.8. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.</p> <p>1.13.9. Evaluate risk /benefit of any intervention to tailor the management plan with minimum risk to the patient.</p> <p>1.13.10. Formulate DD of wheezy chest and have a good understanding of the presentation, and etiology of each disease</p> <p>1.13.11. Formulate a strategy for smoking cessation.</p> <p>1.13.12. Select appropriate diagnostic and therapeutic management strategies in acute and chronic chest diseases.</p>

	<p>1.13.13. Select clinical decisions regarding the main chest diseases</p> <p>1.13.14. Formulate a management plan for different cardiac and chest diseases using the recent guidelines and evidence-based medicine.</p> <p>1.13.15. Formulate an approach for management of malignant pleural effusion.</p> <p>1.13.16. Select patients who are candidates for surgical intervention in pneumothorax.</p> <p>1.13.17. Integrate pharmacological and nonpharmacological management of hypertension</p> <p>1.13.18. Select different treatment of hyperlipidemia according to the patient case</p> <p>1.13.19. Formulate a plan of management for childhood asthma</p> <p>1.13.20. Formulate a plan of management of heart failure in children.</p> <p>1.13.21. Formulate appropriate management plans for individual patients presenting with the most common cardiac disorders.</p> <p>1.13.22. Apply education of patient with hypertension</p> <p>1.13.23. Practice education of asthmatic patient</p> <p>1.13.24. Formulate a strategy for smoking cessation.</p> <p>1.13.25. Conduct smoking cessation session</p> <p>1.13.26. Assess inserted chest tube for removal.</p>
<p>1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1. Select appropriate diagnostic and therapeutic management strategies in acute chest and cardiac diseases.</p> <p>1.15.2. Provide first aid measures for cardiac emergencies.</p> <p>1.15.3. Perform cardiopulmonary resuscitation and basic life support in an effective manner.</p> <p>1.15.4. Perform chest tube insertion.</p> <p>1.15.5. Demonstrate respect to the opinions of seniors and other colleagues in emergent critical situations.</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
<p>2.9 Adopt suitable measures for infection control.</p>	<p>2.9.1 Apply infection control measures while dealing with patients</p>

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 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 either 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
Heart failure in adults I.	1	Cardiology
Heart failure in adults II.	1	Cardiology
Valvular diseases in adults I.	1	Cardiology
Valvular diseases in adults II.	1	Cardiology
Infective endocarditis	1	Cardiology
Pulmonary embolism.	1	Cardiology
Hypertension.	1	Cardiology
Arrhythmia I.	1	Cardiology
Arrhythmia II.	1	Cardiology
Ischemic heart diseases I.	1	Cardiology
Ischemic heart diseases II.	1	Cardiology
Shock	1	Cardiology
Coronary artery bypass graft.	1	Cardiothoracic surgery
Cardiothoracic emergencies.	1	Cardiothoracic surgery
Surgical treatment of valvular heart diseases	1	Cardiothoracic surgery
Chest trauma I.	1	Cardiothoracic surgery
Chest trauma II.	1	Cardiothoracic surgery
Surgical interventions of pleural diseases.	1	Cardiothoracic surgery
Adulthood bronchial asthma.	1	Chest
COPD.	1	Chest
Obstructive sleep apnea.	1	Chest

Pneumonia in adults.	1	Chest
Adulthood tuberculosis.	1	Chest
Lung abscess.	1	Chest
Bronchiectasis.	1	Chest
Pleural effusion.	1	Chest
Interstitial lung diseases.	1	Chest
Lung cancer.	1	Chest
Pulmonary hypertension.	1	Chest
Respiratory failure.	1	Chest
Smoking cessation	1	Family Medicine
Cardiovascular risk assessment in hypertension	1	Family medicine
Cardiovascular risk assessment in hyperlipidemia	1	Family medicine
Upper respiratory tract disorders in children.	1	Pediatrics
Wheezy chest in infants & bronchiolitis.	1	Pediatrics
Childhood bronchial asthma& pediatric TB.	1	Pediatrics
Cyanotic congenital heart diseases I.	1	Pediatrics
Acyanotic congenital heart diseases II.	1	Pediatrics
Obstructive congenital valvular diseases.	1	Pediatrics
Heart failure in children	1	Pediatrics
Pneumonia in children.	1	Pediatrics
Rheumatic fever.	1	Pediatrics
Total	42	
Clinical		
Topic	Teaching Hours	Department
Cardiac symptom,	1.5	Cardiology
Neck veins.	1.5	Cardiology

Pulse and blood pressure	1.5	Cardiology
Inspection and palpation	1.5	Cardiology
Auscultation I	1.5	Cardiology
Auscultation II	1.5	Cardiology
Case scenario I	1.5	Cardiology
Skill lab	1.5	Cardiology
ECG I	1.5	Cardiology
ECG II	1.5	Cardiology
ECG III	1.5	Cardiology
ECG IV	1.5	Cardiology
Anticoagulation & bridging therapy	1.5	Cardiothoracic surgery
Surgical radiology	1.5	Cardiothoracic surgery
Chest tube	1.5	Cardiothoracic surgery
Pneumothorax	1.5	Cardiothoracic surgery
Empyema	1.5	Cardiothoracic surgery
Chest trauma	1.5	Cardiothoracic surgery
History	1.5	Chest
General examination	1.5	Chest
Inspection and palpation	1.5	Chest
Percussion	1.5	Chest
Auscultation	1.5	Chest
Chest X ray	1.5	Chest
Case examination I.	1.5	Chest
Case examination II	1.5	Chest

Case Examination III	1.5	Chest
Case Examination IV	1.5	Chest
Case Examination V	1.5	Chest
Case Examination VI	1.5	Chest
Smoking cessation	1.5	Family Medicine
Bronchial asthma (patient education and follow up)	1.5	Family Medicine
Hypertension (patient education and follow up)	1.5	Family Medicine
History and General examination	1.5	Pediatrics
Chest examination	1.5	Pediatrics
Case examination I	1.5	Pediatrics
Case examination II	1.5	Pediatrics
Cardiac examination	1.5	Pediatrics
Case examination	1.5	Pediatrics
Case examination III	1.5	Pediatrics
Case examination IV.	1.5	Pediatrics
Case Examination V	1.5	Pediatrics
Total	68	

IV– Teaching and Learning Methods:

4. Theoretical Teaching:

g) Interactive lectures: using

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

h) Case Based learning

i) Team Based Learning

5. Clinical Teaching:

d) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

e) Bedside clinical teaching

f) Skill lab

6. Field Training

7. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	70	40%
Final Practical exam.	52.5	30%
Activities	52.5	30%
Total	137.5	100%

E- Grading for by GPA System:

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

VI. List of references and resources:

- Module Notes
- Essential Books:

Pediatrics:

- Nelson Textbook of Pediatrics, 20th Edition. By: Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme, Nina F Schor. W B Saunders Co Ltd, 2015.
- American Academy of Pediatrics Textbook of Pediatric Care, 2nd Edition. By: Thomas K. McInerney, Henry M. Adam, Deborah E. Campbell, Thomas G. DeWitt, Dr. Jane Meschan Foy, Dr. Deepak M. Kamat. American Academy of Pediatrics, 2016.
- Schwartz's Clinical Handbook of Pediatrics (Point (Lippincott Williams & Wilkins)) 5th Edition. By: Joseph J. Zorc, Elizabeth R. Alpern, Lawrence W. Brown, Kathleen M. Loomes, Bradley S. Marino, Cynthia J. Mollen, Leslie J. Raffini. LWW, 2012.

Cardiology:

- Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine, 2-Volume Set 11th Edition. By: Douglas P. Zipes, Peter Libby, Robert O. Bonow, Douglas L. Mann, Gordon F. Tomaselli. Elsevier, 2018.



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- Textbook of Cardiovascular Medicine (Topol, Textbook of Cardiovascular Medicine) 3rd Edition. By: Eric J. Topol, Robert M. Califf, Eric N. Prystowsky, James D Thomas, Paul D. Thompson. Lippincott Williams & Wilkins, 2006)

Chest:

- Crofton & Douglass Respiratory Diseases 5th Edition. By: Seaton, Wiley, 2008
- Fishman's Pulmonary Diseases And Disorders, 5th Edition. By: Michael A. Grippi, Jack A. Elias, Jay A. Fishman, Allan I. Pack, Robert M. Senior, Robert Kotloff . Mc Graw Hill Education, 2015.

Cardiothoracic surgery:

- Sabiston and Spencer Surgery of the Chest, 9th Edition. By: Frank W. Sellke, Pedro J. del Nidouthor, Scott J. Swanson. Elsevier, 2015.
- Johns Hopkins Textbook of Cardiothoracic Surgery, Second Edition 2nd Edition. By: David Yuh, Luca Vricella, Stephen Yang, John Doty. McGraw-Hill Education / Medical, 2014).

Family Medicine:

- Oxford Textbook of Primary Medical Care. By: Roger Jones. Oxford University Press, 2004.
- Textbook of Family Medicine 9th Edition. By: Rakel, Robert E. Saunders; 2015.
- Swanson's Family Medicine Review 8th Edition. By: Alfred F. Tallia, Joseph E. Scherger, Nancy W. Dickey. Elsevier, 2016.
- CURRENT Diagnosis & Treatment in Family Medicine, 4th Edition 4th Edition. By: Jeannette South-Paul, Samuel Matheny, Evelyn Lewis. McGraw Hill / Medical, 2015.

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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres.

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods								Assessment Methods						
		Recorded Lectures	Inverted Lecture	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Skill Lab	Self-directed study	Formative Assessment		Summative Assessment				
										Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.4					X	X				X		X	X		X
1.2	1.2.1 to 1.2.6			X		X	X				X		X			X
1.4	1.4.1 to 1.4.12					X	X	X			X		X	X		X
1.5	1.5.1, 1.5.2	X	X	X	X	X			X	X	X	X	X		X	X
1.6	1.6.1 to 1.6.7	X	X	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 1.8.46	X	X	X	X				X	X		X		X	X	X
1.10	1.10.1 to 1.10.7			X	X	X			X	X	X	X	X		X	X
1.11	1.11.1					X	X				X		X			X
1.13	1.13.1 to 1.13.26			X		X			X	X	X	X	X		X	
1.15	1.15.1-1.15.5			X		X	X			X	X	X	X		X	X
2.9	2.9.1					X	X				X		X			X
3.1	3.1.1 to 3.1.2					X	X				X		X			X
3.4	3.4.1					X	X				X		X			X
3.8	3.8.1					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:

Name: Dr. Morad Beshay Mena

Signature: Dr. Morad Beshay Mena

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Signature: Prof. Dr. Zeinab Kasemy



Menoufia Faculty of Medicine



وحدة
ضمان
الجودة

Gynecology

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Gynecology

Code No: GYN 4104

Department offering the Module : Obstetrics & Gynecology Department

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

Academic year/level: Fourth level

Semester: Semester VII

Date of specification: 2018.

Date of approval by Department Council: 2018

Date of approval by Faculty Council: 2018

Credit hours: 5 credit hours / 5 weeks

	Teaching hours		
	Lectures	Practical	Activities
Obstetrics & Gynecology Department	30	45	90

B- Professional Information

I. Aim of the Module:

This module aims to provide the student with essential clinical knowledge and clinical skills regarding common gynecological disorders, developing his/her role as a health advisor for good women health via well planned approach and management with emphasis on gynecologic problems prevention and health promotion and cost-effectiveness while selecting treatment strategy.

II- Learning outcomes of the module:



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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. Perform structured history taking including obstetric and menstrual history. 1.1.2. Interpret the clinical symptoms of different gynecological cases. 1.1.3. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.4. Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.5. Perform effective eye contact, active listening, and appropriate body language. 1.1.6. Record clinical data in a complete, accurate and retrievable manner. 1.1.7. Present information clearly in written, electronic, and verbal forms.
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. Apply recommended gynaecological related prevention strategies to women throughout the life span. 1.2.5. Practice patient education during an interview with the patient. 1.2.6. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community. 1.2.7. Identify the approach for management of difficult communication including breaking bad news.
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 physical examination for females with gynecological problems including abdominal and pelvic examination. 1.4.2. Interpret the clinical signs of different gynecological cases. 1.4.3. Apply the ethics of medical practice when examining patients. 1.4.4. Apply proper infection control when dealing with patients.

1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1. Apply priority setting while formulating a differential diagnosis for different gynecological cases. 1.5.2. Formulate a management plan for different gynecological disorders with priority for emergent situations. 1.5.3. Discriminate methods of community health Promotion and construct plan for dealing with high-risk conditions.
1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	1.6.1. Select the proper investigations for different gynecology cases. 1.6.2. Interpret the findings of basic investigations of gynecology cases. 1.6.3. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.
1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	1.7.1. Work with other healthcare professions 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. Explain the physiology of menstruation, genital changes and factors controlling. 1.8.2. Identify the types, causes, proper investigation, and management of abnormal bleeding. 1.8.3. Outline the magnitude of the infertility problem and its different etiologies, emphasizing preventable and avoidable causes and anovulation. 1.8.4. Recognize causes, types, and methods of diagnosis and management of STIs. 1.8.5. Outline the magnitude of, causes (preventable and avoidable) and management of pruritus vulvae, genital prolapse, RVF, SI complete perineal tear and rectovaginal fistulas problems 1.8.6. Discuss the magnitude of, causes (preventable and avoidable) and management of uterine fibroid. 1.8.7. Recognize the methods of diagnosis, early detection and describe DD of Genital tract malignancies. 1.8.8. Describe the importance of screening for cervical cancer, its current screening programs, management and importance and management of other genital tract tumors with the results of outlined appropriate investigations for these tumors and their follow up. 1.8.9. Enumerate the different contraceptive methods: their uses, types, advantages, disadvantages, and complications, EBM opinions in Hormonal methods.

<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. Formulate the collected data during history taking and clinical examination to reach the patients psychiatric and neurological diagnosis and differential diagnosis.</p> <p>1.10.2. Integrate the basic bio-psychosocial and behavioral model in psychiatric practice.</p> <p>1.10.3. Formulate a differential diagnosis for a case of convulsions with fever.</p> <p>1.10.4. Construct differential diagnoses of patients with common gynecological conditions.</p> <p>1.10.5. Demonstrate an investigatory and analytic thinking approach to different gynecological clinical situations such as abnormal uterine bleeding, infertility, chronic pelvic pain, adnexal mass, urinary incontinence, delayed puberty and vaginal discharge.</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1. Perform gynecological procedures like IUD insertion and Pap smear.</p>
<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.8. Relate knowledge of contraception, and sterilization in shared decision making with patients in clinical scenarios</p>
<p>1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1. Conduct first aid measures for gynecologic emergency.</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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.	3.8.2 Identify the rules of referral for complex and undiagnosed cases

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 either 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

II- Module Contents:

Theoretical	
Topic	Teaching Hours
Physiology of menstruation, hormone receptors and sex hormones	0.5
Anatomy of female genital tract	1
Development& congenital anomalies of female genital tract	1
Menopause- climactric & menopause	1.5
Dysmenorrhea & premenstrual syndrome- amenorrhea	2
Genital infection& PID – Sexually transmitted diseases	1.5
PCOs & hirsutism	2
Puberty (normal and abnormal)- Intersex	1.5
Abnormal uterine bleeding	2
Hyperprolactibemia	1
Contraception	2
Infertility	2
Old perineal tear, genitoperineal fistula and rectovaginal fistula	1
Genital prolapse & urinary incontinence	1.5
Fibroid uterus	1
Ovarian tumors – tumor markers	2
Neoplasms of the vulva and vagina	0.5
Endometriosis	1.5
CIN & cervical cancer	2
Endometrial hyperplasia and endometrial carcinoma	1
Operative gynecology	1.5

Total	30
Clinical	
Topic	Teaching Hours
History taking and gynecological examination (general, abdominal and vaginal examination)	3
Skill lab clinical activity session (abdominal- breast –pelvic examination)	3
An approach and investigation of a patient with AUB (through a real case of AUB)	3
Departmental ward clinical activity session: (Evaluation of a gynecological patient in the ward- interpretation of gynecological investigations- Preoperative preparation of a gynecological patient in the ward)	3
An approach and investigation of a patient with subfertility (through a real case of subfertility)	3
Departmental operative ward clinical activity session: (patient preparation in the operative theater- abdominal hysterectomy- laparoscopy)	3
An approach and investigations of a woman with genital prolapse ± urinary incontinence (through a real case with genital prolapse)	3
Departmental outpatient clinic clinical activity session:(Patient interview and data recording- common gynecological clinical problems in the clinic & its presentation- gynecological services in the clinic e.g.Pap smear-IUCD insertion- US- Cervical cautery- Colposcopy-Office hysteroscopy)	3
An approach and investigations of a woman with adnexal mass (through a real case with adnexal mass)	3
Skill lab clinical activity session:(How to do pap smear- Insertion of IUCD)	3
An approach and investigations of a woman with a pelvic pain (through a real case with pelvic pain)	3
Departmental inward clinical activity session: (postoperative care of a gynecological patient- Discharge of postoperative patient and plan for follow up)	3
An approach and investigation of a woman with a pelvic or pelviabdominal mass (through a real case with pelviabdominal mass)	3
Departmental operative ward clinical activity session: (Hysteroscopy- Vaginal surgeries (marsupialization of Bartholin abscess-vulvar biopsy-cervical conization-anterior colporrhaphy-posterior colpoperineorrhaphy- vaginal hysterectomy).	3
An approach to a woman with vulvar ulcer (through a real case with vulvar ulcer)	1.5
Departmental outpatient clinic clinical activity session: (Ultrasound features of normal and abnormal female genital tract parts)	1.5
Total	45



IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

c) Skill lab

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

- **Formative:** This form of assessment is designed to help the students to identify areas for improvement. It includes a multiple-choice questions, problems-solving exercises and independent learning activities in all subjects. These will be given during tutorial and practical sessions. The Answers are presented and discussed immediately with you after the assessment. The results will be made available to the students.
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 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
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, Research.	During the module
*Final practical exam	30%	OSCE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	50	40%
Final Practical exam.	37.5	30%
Activities	37.5	30%
Total	125	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:

- **Department Textbook.**
- **Essential Books:**
 - Comprehensive Gynecology 7th Edition. By: Rogerio A. Lobo, David M. Gershenson, Gretchen M Lentz. Elsevier, 2016
 - Williams Gynecology, Third Edition. By: John Schorge Barbara Hoffman. McGraw-Hill, 2016
 - Jeffcoate's Principles of Gynaecology International Edition. By Narenda Malhotra, Jaideep Malhotra, Richa Saxena, Neharika Malhotra Bora. Jaypee Brothers Medical Pub, 2018.

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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods													
		Assessment Methods													
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Skill lab	Self-directed study	Formative Assessment		Summative Assessment			
Theoretical	Clinical									Written	OSCE	Assignments	quizzes	participation	
1.1	1.1.1 to 1,1,7					x	x			x		x	x		x
1.2	1.2.1 to 1.2.7			x		x	x			x		x			x
1.4	1.4.1 to 1.4.4					x	x	x		x		x	x		x
1.5	1.5.1 to 1.5.3	x	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		x	
1.7	1.7.1 to 1.7.3			x		x				x		x			
1.8	1.8.1 to 1.8.9	x	x	x	x				x	x		x		x	x

1.10	1.10.1 to 1.10.5			X	X	X			X	X	X	X	X		X	X
1.11	1.11.1					X	X				X		X			X
1.13	1.13.1 to 1.13.8			X		X			X	X	X	X	X		X	
1.15	1.15.1			X		X	X			X	X	X	X		X	X
2.9	2.9.1					X	X				X		X			X
3.1	3.1.1 to 3.1.2					X	X				X		X			X
3.4	3.4.1					X	X				X		X			X
3.8	3.8.1					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

<u>Module Coordinator:</u>	<u>Program Coordinator:</u>
Name: Dr. Nehad Hosny	Name: Prof. Dr. Zeinab Kasemy

Patient safety

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Patient safety

Code: PS/IC 4105

Department offering the Module Public health and community medicine

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

Academic year: Fourth year

Semester: VII

Date of specification: 2018

Date of approval by department's council: 2018

Date of approval by faculty council: 2018

Credit hours: 1 credit hour

Teaching hours: 15 hours / Lectures

B-Professional information

I, Aim of the Module:

To provide the students with competencies regarding infection control strategies and measures that promotes patient safety.

II. Learning outcomes of the Module

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

Key competency	Module LOs
1.12 Adopt strategies and apply measures that promote patient safety.	1.12.1. Define health care associated infections and, its types, predisposing factors and how to prevent. 1.12.2. Define surveillance, its components and describe different types of surveillance. 1.12.3. Define outbreak and describe its investigations. 1.12.4. Apply the skills to investigate a case of outbreak

- 1.12.5. Apply the skills for hospital waste management, safe injection and environmental cleaning
- 1.12.6. Formulate a management plan for public health problems.
- 1.12.7. Effectively manage time and resources and set priority
- 1.12.8. Analyze a changing work environment.

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	<p>2.9.1. Identify infection control process and 10 requirements of standard precautions.</p> <p>2.9.2. Identify protocol for immunization of health care workers</p> <p>2.9.3. Apply the skills for hand hygiene, PPE and aseptic technique.</p> <p>2.9.3. Interact and communicate sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, and professional backgrounds, and with persons of all ages and lifestyle preferences.</p> <p>2.9.4. Collaborate with his colleagues in a teamwork during field visits, class discussion, as well as solving problems</p>

III. Module Contents:

Topic	Teaching hours
Introduction	1
Surveillance of healthcare associated infections (part 1)	1
Surveillance of healthcare associated infections (part 2)	1
Hospital outbreak management (part 1)	1
Hospital outbreak management (part 2)	1
Infection control (standard precaution)	1
Infection control (hand hygiene)	1
Infection control (personal protective equipment's)	1
Aseptic technique\respiratory hygiene\cough etiquette	1
Cleaning, disinfection and sterilization	1
Biomedical waste managements (part 1)	1
Biomedical waste managements (part 1)	1
Occupational health, safe injection	1
Post exposure prophylaxis	1
Revision	1
Total	15

IV– Teaching and learning methods

The following teaching / learning methods are used to promote better understanding:

- **Interactive Lectures**
 - **Self-directed learning**
- **Interactive lectures:** In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying topic through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.
- **Self-directed learning:** Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problemsolving

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments:

- Final-term examination: 100% (12.5 marks)

E- Grading for by GPA System:

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



Menoufia Faculty of Medicine



VI. List of references and resources:

1- **Module notes.**

2- **Essential Books:**

- Patient Safety 2nd Edition. By: Charles Vincent. BMJ Books, 2010.
- Patient Safety: A Case-Based Comprehensive Guide. By: Abha Agrawal. Springer; 2014.

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- Hospital wards, Outpatient clinics, and Operative theatres

<u>Module Coordinator:</u>	<u>Program Coordinator:</u>
Name: Dr. Shaimaa Yehia Signature: Dr. Shaimaa Yehia	Name: Prof. Dr. Zeinab Kasemy Signature: Prof. Dr. Zeinab Kasemy

Vertical Integration Module (7)

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Vertical Integration Module (7)

Department offering the Module: Internal Medicine

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

Academic year/level: Fourth level

Semester: Semester VII

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hour: 0.5 credit hour

Teaching Hours: 7.5 hours/ Lectures

B- Professional Information

I. Aim of the Module:

To provide the students with the clinical skills of history taking of different symptomatology, interpreting the examination of the patient, and a final diagnosis of the patient while adopting effective communication skills.



II. Learning Outcomes of the Module

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

Key competency	Module LOs
1.1m Take and record a structured, patient-centered history.	1.1.1. Describe the different items in history taking. 1.1.2. Identify the important questions to ask for the patient with hemoptysis 1.1.3. Identify the important questions to ask for the patient with menorrhagia 1.1.4. Identify the important questions to ask for the patient with bronchogenic carcinoma. 1.1.5. Identify the important questions to ask for the patient with anemia 1.1.6. Identify the important questions to ask for the patient with hemochromatosis
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
1.4 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. Interpret the examination findings in patients with hemoptysis. 1.4.2. Interpret the examination findings in patients with hemochromatosis. 1.4.3. Analyze different endocrinal manifestations of bronchogenic carcinoma. 1.4.4. Interpret the examination findings in patients with anemia.
1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1. Apply priority setting while formulating a differential diagnosis for different cases.

1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	1.6.1. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness. 1.6.2. Interpret laboratory and radiological investigations of any patient.
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. List different causes of hemoptysis 1.8.2. Differentiate hemoptysis from hematemesis 1.8.3. Describe and enumerate the endocrinal manifestation of bronchogenic carcinoma 1.8.4. Identify the cardiovascular changes in patient with anemia 1.8.5. Identify the endocrinal causes of menorrhagia and outline its management options. 1.8.6. Describe the cardiovascular changes occurs in anemia 1.8.7. Describe the endocrinal and cardiovascular changes in anemia and how to follow up the patient.
1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	1.10.1. Integrate the results of history, physical and laboratory tests into a correct diagnosis and create an individualized treatment plan. 1.10.2. Formulate a differential diagnosis for different endocrinal causes of menorrhagia.
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. Share patients or their caregivers in decision making regarding management plans. 1.13.4. Gather and organize material from various sources (including library, electronic and online resources). 1.13.5. Formulate an approach to manage patients with hemoptysis.

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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 either 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:

Topic	Teaching Hours
Approach to patient with hemoptysis	2 h
Endocrinal manifestations of patient with bronchogenic carcinoma	1.5h
Cardiovascular changes in anemia	1.5h
Endocrinal causes of menorrhagia	1.5 h.
Endocrinal and cardiovascular manifestation of hemochromatosis	1 h
Total	7.5

IV– Teaching and learning methods

The following teaching / learning methods are used to promote better understanding:

- **Interactive Lectures/online**
 - **Self-directed learning**
- **Interactive lectures:** In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying topic through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.
- **Self-directed learning:** Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.



Menoufia Faculty of Medicine



V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problemsolving

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments:

- Final-term examination: 100% (12.5 marks)

VI. List of references and resources:

- **Module notes.**
- **Essential Books:**

The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.

Decision Making in Medicine 3rd Edition. By: Stuart B. Mushlin, Harry L. Greene. Mosby, 2009.

VII- Facilities required for teaching and learning:

- 4- Faculty Lecture halls
- 5- Faculty library for textbooks & electronic library for web search.
- 6- Audiovisual aids as boards, data show and computers.

Module Coordinator : Dr. Enas Zahran	Program Coordinator: Prof. Dr. Zeinab Kasemy
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Semester VIII

Gastroenterology, Hepatology and Infectious Diseases

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Gastroenterology, Hepatology and Infectious Diseases

Code No: GIT/HEPT/ID 4203

Department offering the Module and teaching hours:

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

Academic year/level: Fourth level

Semester: Semester VIII

Date of specification: 2018.

Date of approval by Department Council: 2018

Date of approval by faculty council: 2018

Credit hours: 8 credit hours/ 6 weeks

	Teaching hours		
	Lectures	Practical	Activities
General Surgery Department	12	18	36
Internal Medicine Department	12	18	36
Pediatric Department	9	13.5	27
Tropical and Infectious Diseases	9	13,5	27
Family Medicine department	6	9	18
Total	48	72	144

B- Professional Information

I – Aim of the Module:

To provide students with an clinical knowledge and skills covering the common and important gastrointestinal system emergencies and diseases in pediatrics and adults including surgically managed diseases and their approach of treatment along with essentials of disease prevention and control.

II- Learning Outcomes of the Module

By the end of the pediatrics Module, the student will be able to:

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 thorough history taking and clinical examination of different GIT and related organs symptoms as jaundice, abdominal pain, vomiting, etc... 1.1.2. Assess a child with GIT symptoms 1.1.3. Conduct thorough history taking and clinical examination for a case of GIT bleeding 1.1.4. Conduct thorough history taking and clinical examination for a case fever. 1.1.5. Conduct thorough history taking and clinical examination for a case GIT malignancy. 1.1.6. Interpret different GIT symptoms. 1.1.7. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.8. Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.9. Perform effective eye contact, active listening, and appropriate body language. 1.1.10. Record clinical data in a complete, accurate and retrievable manner. 1.1.11. Present information clearly in written, electronic, and verbal forms.
1.2		1.2.1. Demonstrate empathy in patient consultation

	Adopt an empathic and holistic approach to the patients and their problems.	<p>1.2.2. Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities.</p> <p>1.2.3. Apply the ethics of medical practice when dealing with patients and colleagues.</p> <p>1.2.4. Practice patient education during an interview with the patient.</p> <p>1.2.5. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community.</p> <p>1.2.6. Identify the approach for management of difficult communication including breaking bad news.</p>
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.	<p>1.4.1. Perform general examination for GIT cases</p> <p>1.4.2. Conduct detailed abdominal examination</p> <p>1.4.3. Integrate anatomy with clinical presentation of GI diseases.</p> <p>1.4.4. Assess nutritional status in his patients</p> <p>1.4.5. Evaluate clinical presentations of different GIT and related organs disorders to formulate a differential diagnosis.</p> <p>1.4.6. Demonstrate clinical findings in cases of hepatic dysfunction.</p> <p>1.4.7. Differentiate clinically between different causes of abdominal swelling.</p> <p>1.4.8. Apply the ethics of medical practice when examining patients.</p> <p>1.4.9. Apply proper infection control when dealing with patients.</p>
1.5	Prioritize issues to be addressed in a patient encounter.	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different GIT cases</p> <p>1.5.2. Formulate a management plan for different GIT disorders with priority for emergent situations.</p>
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	<p>1.6.1. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p> <p>1.6.2. Interpret different imaging of the GIT and identify normal studies and ximaging findings of GIT disorders.</p> <p>1.6.3. Interpret findings of laboratory investigations of GIT practice.</p>

1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<p>1.7.1. Work with other healthcare professions in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>
1.8	Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	<p>1.8.1. Describe the etiology and path- ophysiology of the major disorders of the gastrointestinal system and related organs.</p> <p>1.8.2. Identify the normal structure and function of the gastrointes- tinal system.</p> <p>1.8.3. Describe the etiology and path- ophysiology of the major disor- ders of the gastrointestinal sys- tem and related organs.</p> <p>1.8.4. Explain the pathology of major GI diseases and related organs.</p> <p>1.8.5. Discuss the Epidemiology of diseases of the GI system, their pre- vention and control.</p> <p>1.8.6. Identify causes of upper GIT symptomatology as dysphagia, heartburn, and hematemesis</p> <p>1.8.7. Identify causes of lower GIT symptomatology as constipa- tion, diarrhea and bleeding per rec- tum,</p> <p>1.8.8. Describe oral cavity diseases as ulcers, neoplasm salivary gland diseases</p> <p>1.8.9. Describe GERD/ esophageal diseases and motility disorders and their treatment</p> <p>1.8.10. Identify causes Abdominal pain, Nausea and vomiting</p> <p>1.8.11. Discuss Peptic Ulcer Dis- ease and its complications</p> <p>1.8.12. Identify causes of liver cir- rhosis, how to diagnose and treat</p> <p>1.8.13. Outline manifestations of liver failure</p> <p>1.8.14. Identify causes of liver neo- plasms and their diagnosis and man- agement</p> <p>1.8.15. Describe Cholelithia- sis/Cholecystitis and their diagnosis and treatment</p> <p>1.8.16. Identify different types of Jaundice, Abnormal liver enzymes</p> <p>1.8.17. Describe pancreatitis, com- plications and management</p> <p>1.8.18. Outline constipation, diarrhea, hematochezia, celiac sprue, lactose intolerance</p>

		<p>1.8.19. Outline abdominal swellings, GI infections, IBD, IBS</p> <p>1.8.20. Describe diverticulosis, hemorrhoids, and anal fissures</p>
1.10	Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	<p>1.10.1. Integrate information from history, examination and investigations to reach an appropriate diagnosis of a GIT disorder and determine its etiology.</p> <p>1.10.2. Evaluate clinical presentations of different GIT and related organs disorders to formulate a differential diagnosis.</p> <p>1.10.3. Formulate a differential diagnosis for common GI complaints.</p> <p>1.10.4. Formulate a comprehensive approach to patients with signs and symptoms of gastrointestinal disease.</p> <p>1.10.5. Predict prognosis for malignant neoplasms of GIT and related organs.</p> <p>1.10.6. Predict effects of gastrointestinal disorders on general health.</p>
1.11	Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.	<p>1.11.1. Apply Osteopathic Manipulative Medicine to GI diseases.</p> <p>1.11.2. Perform nasogastric tube insertion.</p>
1.13	Establish patient-centered management plans in partnership with the patient, his/her family and other health professionals as appropriate,	<p>1.13.1. Construct preventive plan and screening programs for early detection of for different GIT and related organs disorders.</p>

	<p>using Evidence Based Medicine in management decisions.</p>	<p>1.13.2. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.3. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.4. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.5. Propose a management plan for patients with GIT disorders based on clinical data.</p> <p>1.13.6. Formulate management plans depending on different clinical scenarios of GIT infections.</p> <p>1.13.7. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.8. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.9. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.10. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.11. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.</p>
1.15	<p>Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1. Summarize basic treatment options for GI GIT emergencies including hematemesis, melena, and bleeding per rectum.</p> <p>1.15.2. Formulate a treatment plan for a case of dehydration in children</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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 either 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
Functional dyspepsia	1.5	Family Medicine
weight loss	1 .5	Family Medicine
Constipation	1.5	Family medicine
Screening for CRC	1.5	Family Medicine
GERD and motility disorders (not including surgical treatment)	1.5	Internal Medicine
Gastritis, Peptic Ulcer Disease (except complications), Miscellaneous Gastropathy, Gastrointestinal Complications of NSAIDs, Motility disorders list and Gastroparesis	1.5	Internal Medicine
Upper gastro-intestinal bleeding	1.5	Internal Medicine
Non-viral hepatitis: (NASH, Drugs, Alcoholic, Metabolic and Autoimmune, Other: Right heart failure	1.5	Internal Medicine
Vascular complications of liver disease	1.5	Internal Medicine
Liver transplant (indications and complications)	1.5	Internal Medicine
Acute Pancreatitis (not including surgical treatment of complications), Chronic Pancreatitis, Autoimmune Pancreatitis and IgG4 Disease	1.5	Internal Medicine
Cholecystitis and gall stones	1.5	Internal Medicine

Chronic liver diseases	1	Internal Medicine
Non-infectious diarrhea, irritable bowel syndrome	1	Internal Medicine
Crohn's disease and ulcerative colitis	1	Internal Medicine
Lower gastro-intestinal bleeding	1	Internal Medicine
constipation	1	Pediatrics
Abdominal Pain	1	Pediatrics
Gastro-enteritis	1	Pediatrics
Viral and parasitic infection	1	Pediatrics
Bacterial infection	1	Pediatrics
Hepatitis in children	1	Pediatrics
hepato-splenomegaly	1	Pediatrics
Salivary, oral cavity neoplasm	1	General Surgery
Motility disorders (surgical treatment), Anti-reflux surgery, esophageal neoplasm	1	General Surgery
Hernia	1	General Surgery
Peptic Ulcer Disease complications: perforation, obstruction, and malignant transformation), Surgical treatment of obesity, gastric neoplasm	1	General Surgery
Liver infection and neoplasm	1	General Surgery
Surgical treatment of pancreatitis and its complication, Pancreatic neoplasm	1	General Surgery
Obstructive jaundice	1	General Surgery
Intestinal obstruction, peritoneum, mesentery	1	General Surgery
large bowel neoplasm	1	General Surgery
The appendix	1	General Surgery
GIT diverticular diseases	1	General Surgery
Anal Diseases	1	General Surgery
Sialadenitis, DD of tongue ulcer	1	Tropical
Viral Hepatitis (acute and chronic)	1	Tropical
Cellular decompensation of liver	2	Tropical
Infectious diarrhea (giardiasis, helminths, TB, bacterial overgrowth, tropical sprue, Whipple's disease)	2	Tropical
Bilharziasis	1	Tropical
Enteric fever and brucellosis	1	Tropical
Malaria and toxoplasmosis	1	Tropical
Approach to a case of fever	1	Tropical
Total	48	
Clinical		

Topic	Teaching Hours	Department
Clinical examination of salivary and oral cavity lesions	3	General surgery
Clinical examination of hernia	4	General surgery
Clinical examination of abdominal mass	4	General surgery
Clinical approach to jaundice	3	General surgery
Interpretation of Abdominal imaging (X-ray)	4	General surgery
Symptomatology of GIT	3	Internal Medicine
General examination (head and neck)	3	Internal Medicine
General examination (limbs and chest)	3.5	Internal Medicine
Abdominal examination (inspection-palpation)	3.5	Internal Medicine
Abdominal examination (auscultation,percussion)	3.5	Internal Medicine
Clinical interpretation and provisional diagnosis3	3.5	Internal Medicine
Symptomatology of GIT	3.5	Tropical Medicine
General examination	3.5	Tropical Medicine
Local abdominal examination	3.5	Tropical Medicine
provisional diagnosis and revision	3.5	Tropical Medicine
History taking	6	Family Medicine
General examination	3.5	Family Medicine
Spots on GIT and hepatology, hepatosplenomegaly	3.5	Family Medicine
Abdominal examination, gastroenteritis	3.5	Family Medicine
Infection spots, revision	3.5	Family Medicine
Total	72	

IV– Teaching and Learning Methods:

1. Theoretical Teaching:
 - a) Interactive lectures: using
 - Brainstorming
 - Audiovisual aids through animations and diagrams
 - Interaction with the students through questions
 - Student engagement with discussion
 - b) Case Based learning
 - c) Team Based Learning
2. Clinical Teaching:
 - a) Clinical rounds: using
 - Simulated patients
 - Web based video and Multimedia applications
 - Problem solving
 - b) Bedside clinical teaching
 - c) Skill lab
3. Self-directed Learning



V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	80	40%
Final Practical exam.	60	30%
Activities	60	30%
Total	200	100%

E- Grading for by GPA System:

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

Vi. List of References and Resources:

- Module Notes.
- Essential Books:

Tropical Medicine:

- Hunter's Tropical Medicine and Emerging Infectious Disease: Expert Consult. 9th Edition. By: Alan J. Magill, Edward T Ryan, Tom Solomon, David R Hill. Saunders, 2012.
- Tropical Medicine: A Clinical Text, 8th Edition, Revised and Expanded (International Humanitarian Affairs) 8th Edition. By: Kevin M. Cahill. Fordham University Press; 8th edition, 2011.
- Manson's Tropical Diseases: Expert Consult - Online and Print 23rd Edition. By: Jeremy Farrar, Peter J Hotez, Thomas Junghanss, Gagandeep Kang, David Lalloo, Nicholas J. White. Saunders Ltd, 2013

General Surgery:

- The Washington Manual of Surgery (Lippincott Manual Series), 7th Edition. By: Mary E. Klingensmith LWW, 2016
- Surgery: A Case Based Clinical Review 1st Edition. By: Christian De Virgilio, Areg Grigorian, Paul N. Frank. Springer Nature, 2015.
- Current Diagnosis and Treatment Surgery 14th edition. By: Gerard Doherty. McGraw Hill / Medical, 2015.
- Essentials of General Surgery 5th Edition. By: Lawrence, Peter F., Bell, Richard M. Dayton, Merrill T., Hebert, James C., Mohammed I. Ahmed. Lippincott Williams & Wilkins, 2012.



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Pediatrics:

- Nelson Textbook of Pediatrics, 20th Edition. By: Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme, Nina F Schor. W B Saunders Co Ltd, 2015.
- American Academy of Pediatrics Textbook of Pediatric Care, 2nd Edition. By: Thomas K. McInerney, Henry M. Adam, Deborah E. Campbell, Thomas G. DeWitt, Dr. Jane Meschan Foy, Dr. Deepak M. Kamat. American Academy of Pediatrics, 2016.
- Schwartz's Clinical Handbook of Pediatrics (Point (Lippincott Williams & Wilkins)) 5th Edition. By: Joseph J. Zorc, Elizabeth R. Alpern, Lawrence W. Brown, Kathleen M. Loomes, Bradley S. Marino, Cynthia J. Mollen, Leslie J. Raffini. LWW, 2012.

Internal Medicine:

- The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.
- CURRENT Medical Diagnosis and Treatment, 56th Edition. By: Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow. McGraw-Hill Education / Medical, 2017.
- Harrison's Principles of Internal Medicine 19th Edition and Harrison's Manual of Medicine 19th Edition. By: J. Larry Jameson, Anthony Fauci, Dennis Kasper, Stephen Hauser, Dan Longo, Joseph Loscalzo. McGraw-Hill Education / Medical, 2017.
- Goldman-Cecil Medicine, 25th Edition. By: Lee Goldman, Andrew I. Schafer. Elsevier; 2015.

Family Medicine:

- Oxford Textbook of Primary Medical Care. By: Roger Jones. Oxford University Press, 2004.
- Textbook of Family Medicine 9th Edition. By: Rakel, Robert E. Saunders; 2015.
- Swanson's Family Medicine Review 8th Edition. By: Alfred F. Tallia, Joseph E. Scherger, Nancy W. Dickey. Elsevier, 2016.
- CURRENT Diagnosis & Treatment in Family Medicine, 4th Edition 4th Edition. By: Jeannette South-Paul, Samuel Matheny, Evelyn Lewis. McGraw Hill / Medical, 2015.

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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods							Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Self-directed study	Formative Assessment		Summative Assessment				
									Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1,1,11					X	X			X		X	X		X
1.2	1.2.1 to 1.2.6			X		X	X			X		X			X
1.4	1.4.1 to 1.4.9					X	X			X		X	X		X
1.5	1.5.1, 1.5.2	X	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	X		X	
1.7	1.7.1, 1.7.3			X		X			X		X				
1.8	1.8.1 to 1.8.20	X	X	X	X			X	X		X		X	X	X
1.10	1.10.1 to 1.10.6			X	X	X		X	X	X	X	X		X	X
1.11	1.11.1, 1.11.2					X	X			X		X			X
1.13	1.13.1 to 1.13.11			X		X		X	X	X	X	X		X	
1.15	1.15.1, 1.15.2			X		X	X		X	X	X	X		X	X
2.9	2.9.1					X	X			X		X			X
3.1	3.1.1 to 3.1.2					X	X			X		X			X
3.4	3.4.1					X	X			X		X			X
3.8	3.8.1					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:	Program Coordinator:
Name: Dr. Ashraf Ghareeb	Name: Prof. Dr. Zeinab Kasemy
Signature: Dr. Ashraf Ghareeb	Signature: Prof. Dr. Zeinab Kasemy



Menoufia Faculty of Medicine
Ain Helwan



Renal and Urinary Diseases and Andrology

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Renal and Urinary Diseases and Andrology

Code No: GE/URIN 4201

Department offering the Module:

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

Academic year/level: Fourth level

Semester: Semester VIII

Date of specification: 2018

Date Of Approval by Departments Council: 2018

Date Of Approval by Faculty Council: 2018

Credit hours: 5.5 credit hours/ 5 weeks

	Teaching hours		
	Lectures	Practical	Activities
Urology Department.	18	27	54
Pediatrics department.	6	9	18
Internal medicine department.	9	13.5	27
Total	33	49.5	99

B- Professional Information

I- Aim of the Module

To provide students with essential clinical knowledge and skills covering the common and important renal and urinary tract emergencies and diseases in pediatrics and adults including surgically managed diseases and their approach of treatment along with essentials of disease prevention and control.

ii- Intended 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 thorough history taking for different urological diseases including urinary stone disease, acute pyelonephritis, benign prostatic hyperplasia, prostate cancer, bladder cancer, and upper tract malignancies. 1.1.2. Conduct thorough history taking for a case of lower urinary tract symptoms. 1.1.3. Conduct thorough history taking for a case of inguinoscrotal swelling. 1.1.4. Conduct thorough history taking for a case of pure scrotal swelling. 1.1.5. Take a thorough history from different adult renal cases of appropriate depth and detail, relative to the clinical context. 1.1.6. Take good history about different pediatric renal cases according to their age group. 1.1.7. Interpret the clinical symptoms of different urological and renal cases 1.1.8. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.9. Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.10. Perform effective eye contact, active listening, and appropriate body language. 1.1.11. Record clinical data in a complete, accurate and retrievable manner. 1.1.12. Present information clearly in written, electronic, and verbal forms.
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. Conduct a psychiatric interview while showing empathy, with appropriate non-verbal communication, active listening, respect toward

	<p>cultural variation, and proper initiation and closure of the interview.</p> <p>1.2.5. Practice patient education during an interview with the patient.</p> <p>1.2.6. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community.</p> <p>1.2.7. Identify the approach for management of difficult communication including breaking bad news.</p>
<p>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.</p>	<p>1.4.1. Conduct a clinical examination for a case of inguinoscrotal swelling.</p> <p>1.4.2. Conduct a clinical examination for a case of pure scrotal swelling.</p> <p>1.4.3. Detect clinical findings in cases of urological emergencies.</p> <p>1.4.4. Detect clinical findings in cases of urological trauma.</p> <p>1.4.5. Detect clinical findings in cases of mal-descended testis.</p> <p>1.4.6. Perform a complete general examination for the patient including state consciousness, vital signs, vital colors and regional examination.</p> <p>1.4.7. Perform problem-focused physical examination for renal cases.</p> <p>1.4.8. Assess different pediatric vital signs.</p> <p>1.4.9. Perform correct clinical assessment of the child general look and recognize its abnormalities.</p> <p>1.4.10. Perform correct general examination including head, face, neck, extremities, skin, lymph node examination and lower limb.</p> <p>1.4.11. Perform correct abdominal examination and recognize its abnormalities.</p> <p>1.4.12. Perform correct clinical examination for children with nephrotic syndrome.</p> <p>1.4.13. Perform correct clinical for children with nephritic syndrome.</p> <p>1.4.14. Perform correct clinical examination for children with chronic kidney disease.</p> <p>1.4.15. Interpret early warning signs of urological malignancies</p> <p>1.4.16. Interpret the clinical signs of different renal and urological cases.</p> <p>1.4.17. Apply the ethics of medical practice when examining patients.</p>

		1.4.18. Apply proper infection control when dealing with patients.
1.5	Prioritize issues to be addressed in a patient encounter.	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different renal and urological cases</p> <p>1.5.2. Formulate a management plan for different renal and urological disorders with priority for emergent situations.</p>
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	<p>1.6.1. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p> <p>1.6.2. Interpret different x-ray images of the urinary tract and identify normal studies and x-ray findings of urological disorders.</p> <p>1.6.3. Interpret findings of urine analysis and different blood biochemistry results relevant to urology practice such as PSA and creatinine level in blood.</p> <p>1.6.4. Interpret diagnostic workup of male factor infertility to reach the proper diagnosis in cases with failure of conception.</p> <p>1.6.5. Interpret the results of basic laboratory and radiological investigations including arterial blood gases data, kidney function tests.</p> <p>1.6.6. Interpret different investigations for proteinuria</p> <p>1.6.7. Construct diagnostic workup for men presenting with symptoms of bladder outlet obstruction.</p> <p>1.6.8. Formulate diagnostic workup including laboratory tests and imaging studies tailored on different clinical scenarios of urological patients including urinary stone.</p> <p>1.6.9. Formulate the appropriate workup plan for early detection of urological cancers.</p>
1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<p>1.7.1. Work with other healthcare professions in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>

<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<ol style="list-style-type: none"> 1.8.1. Illustrate relevant clinical anatomy of the urinary tract and male genital system. 1.8.2. Recognize common congenital anomalies of the urinary tract and male genital system with their clinical presentations, differential diagnoses. 1.8.3. Recognize different types of urinary incontinence with description of its causes, presentation, workup, and management. 1.8.4. Describe different laboratory and imaging investigations in common use for diagnosis of urological disorders. 1.8.5. Recognize risk factors, pathophysiology, etiology, and different types of urinary tract stones and its clinical presentation. 1.8.6. Discuss workup, and medical and surgical management plans for urinary stone disease with highlights on preventive measures. 1.8.7. Discuss urological causes of acute kidney injury and chronic kidney disease with highlights on renal transplantation. 1.8.8. Recognize risk factors, causes, clinical presentation, workup, and management plans for upper and lower urinary tract infections as well as infections of the male genital organs. 1.8.9. Describe pathophysiology, clinical presentation, complications, workup, and management of benign prostatic hyperplasia. 1.8.10. Discuss risk factors, pathology, screening, and clinical presentation of prostate cancer as well as the role of the urologist in its diagnosis and treatment. 1.8.11. Recognize risk factors, pathology, and staging and classification of bladder cancer and its clinical presentation, diagnosis, and management. 1.8.12. Discuss pathology, staging, clinical presentation, workup, and management of upper urinary tract urothelial carcinoma. 1.8.13. Discuss pathology, staging, clinical presentation, differential diagnosis, workup, and management of renal cell carcinoma. 1.8.14. Recognize classification, pathology and staging of testicular tumors and the role of the urologist in its diagnosis and management. 1.8.15. Discuss different urological emergencies with emphases on timely accurate diagnosis and management.
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- 1.8.16. Describe causes, presentation, emergency management, and general lines of treatment of urinary male genital tracts trauma.
- 1.8.17. Discuss etiology, pathophysiology, workup, and lines of management of male factor infertility.
- 1.8.18. Identify different types of glomerulonephritis whether acute or chronic including Lupus nephritis and tubulointerstitial nephritis with their presentation and management
- 1.8.19. Outline pathophysiology of chronic kidney disease and diabetic nephropathy with its relation to hypertension and approach for management.
- 1.8.20. Define the basics of acid base balance and causes and treatment of electrolyte imbalance.
- 1.8.21. Explain the principles of renal replacement therapy and its indications.
- 1.8.22. Describe the pathophysiology of polycystic kidney disease and its presentation and management
- 1.8.23. Outline the etiology and presentation of acute kidney injury with effect of drugs on the kidney.
- 1.8.24. Define the etiology, presentation and management of nephrotic syndrome.
- 1.8.25. Recognize different causes of Hematuria in pediatrics.
- 1.8.26. Identify pathophysiology, Clinical picture of acute post streptococcal glomerulonephritis.
- 1.8.27. Describe definition, pathophysiology and clinical presentation of Hemolytic uremic syndrome.
- 1.8.28. Outline classifications of different types of proteinuria in pediatrics.
- 1.8.29. Determine definition, pathophysiology, differential diagnosis, clinical presentation and complications of idiopathic nephrotic syndrome.
- 1.8.30. Describe definition, pathophysiology, differential diagnosis, clinical presentation and complications of chronic kidney disease.
- 1.8.31. Outline etiology, stages, pathophysiology, pathology, risk factors and clinical picture of chronic kidney disease.
- 1.8.32. Describe definition, pathophysiology, differential diagnosis, clinical presentation and complications of acute kidney injury.

- 1.8.33. Outline etiology, grades, pathophysiology, pathology, risk factors and clinical picture of acute kidney injury.
- 1.8.34. Outline different types, causes, clinical presentations and treatment of urinary tract infections.

1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.

- 1.10.1 Formulate a diagnostic approach and treatment plan for children with nephrotic syndrome.
- 1.10.2 Formulate a diagnostic approach and treatment plan for children with nephritic syndrome.
- 1.10.3 Formulate a diagnostic approach and treatment plan for children with chronic kidney disease.
- 1.10.4 Formulate differential diagnosis of dark urine in pediatrics.
- 1.10.5 Analyze differential diagnosis of Hematuria.
- 1.10.6 Formulate a diagnostic approach and a management plan appropriate for idiopathic nephrotic syndrome in pediatrics.
- 1.10.7 Integrate information from history, examination and investigations to reach an appropriate diagnosis of acute kidney injury and determine its etiology.
- 1.10.8 Formulate an approach for diagnosis and treatment of chronic kidney disease in pediatrics.
- 1.10.9 Construct a differential diagnosis for obstructive uropathy in pediatrics.
- 1.10.10 Relate the clinical symptoms and signs of urological disorders based with the anatomical factors and disease pathophysiology.
- 1.10.11 Relate the surgical anatomy of urological cancers and their routes of spread and surgical management.
- 1.10.12 Evaluate clinical presentation and complications of urological congenital anomalies based on possible pathophysiology.
- 1.10.13 Evaluate clinical presentation of urinary incontinence and lower urinary tract disorders.
- 1.10.14 Relate between different social, dietary, anatomical, and genetic factors and urinary stone disease

	<p>1.10.15 Formulate a diagnostic approach and propose a management plan for patients with urinary stone disease based on clinical data.</p> <p>1.10.16 Formulate a differential diagnosis for decreased urine output based on clinical data and differentiate between prerenal, renal, and postrenal causes of oligo-anuria.</p> <p>1.10.17 Formulate a diagnostic approach for different types of infections.</p> <p>1.10.18 Analyze efficiently nephrology case scenarios and refer to the most appropriate diagnosis and possible differential diagnosis.</p> <p>1.10.19 Evaluate patients with essential hematuria and their health services.</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1. Demonstrate uses of different catheters used in urology practice and apply the precautions of urethral catheterization.</p> <p>1.11.2. Demonstrate uses of specific surgical instruments used in urologic surgeries.</p>
<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Propose a management plan for patients with urinary stone disease based on clinical data.</p> <p>1.13.5. Formulate a management plan for different types of infections.</p> <p>1.13.6. Formulate management plans depending on different clinical scenarios of male genital tract infections.</p> <p>1.13.7. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.8. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.9. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.10. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.11. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients</p>

1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	1.15.1. Judge the patient whether is emergent to perform procedure by examination the GCS and the pupils. 1.15.2. Diagnose urgent life-threatening conditions, that need appropriate initial management. 1.15.3. Evaluate clinical presentation of cases of urological emergencies and trauma and construct timely management plans.
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Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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 either 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	Duration	Department
Acute Kidney Injury	1	Internal Medicine
Acute kidney Injury in special situations	1	Internal Medicine
Chronic Kidney Disease	1	Internal Medicine
Renal replacement therapy	1	Internal Medicine
Kidney and systemic diseases	1	Internal Medicine
Cystic disease of the kidney	1	Internal Medicine
Glomerulopathy	1	Internal Medicine
Water and electrolyte balance	1	Internal Medicine
Acid base balance	1	Internal Medicine
Acute Kidney Injury in children	1	Pediatrics
Urinary Tract Infections in Children	1	Pediatrics

Chronic Kidney Disease in Children	1	Pediatrics
Approach to a case of dark urine	1	Pediatrics
Poststreptococcal glomerulonephritis	1	Pediatrics
Nephrotic syndrome in children	1	Pediatrics
Anatomy and embryology	1	Urology
Congenital anomalies	1	Urology
Symptomatology and incontinence	1	Urology
Urological investigations	1	Urology
Stone disease (Etiology and clinical picture)	1	Urology
Stone Disease (Management)	1	Urology
Chronic Kidney Disease and Transplantation	1	Urology
Urinary Tract Infections	1	Urology
Benign prostatic hyperplasia	1	Urology
Prostate cancer	1	Urology
Bladder cancer	1	Urology
Upper tract urothelial carcinoma	1	Urology
Renal tumors	1	Urology
Testicular tumors	1	Urology
Urological trauma	1	Urology
Male infertility	1	Urology
Revision	1	Urology
Revision	1	Urology
Total	33	
Clinical		
Topic	Duration	Department
Nephrology sheet	1.5	Internal Medicine
Nephrology examination	1.5	Internal Medicine
Interpretation of renal investigation	1.5	Internal Medicine
A case of AKI	1.5	Internal Medicine
A case of CKD	1.5	Internal Medicine
Different modalities of dialysis	1.5	Internal Medicine
A case of glomerulopathy	1.5	Internal Medicine
A case of cystic kidney disease	1.5	Internal Medicine
ABG interpretation	1.5	Internal Medicine
General examination	1.5	Pediatrics
Abdominal examination	1.5	Pediatrics
A case of CKD	1.5	Pediatrics
A case of glomerulonephritis	1.5	Pediatrics
Nephrotic syndrome	1.5	Pediatrics
Spots	1.5	Pediatrics
Symptomatology and examination: Upper tract.	1.5	Urology
Symptomatology and examination: Lower tract and genitalia.	1.5	Urology
Investigations: Laboratory.	1.5	Urology
Investigations: Imaging	1.5	Urology

Haematuria: Etiology and types.	1.5	Urology
Haematuria: Evaluation and management.	1.5	Urology
Lower urinary tract symptoms: Definitions, classification and patient evaluation.	1.5	Urology
Lower urinary tract symptoms: Management.	1.5	Urology
Catheters.	1.5	Urology
Instruments	1.5	Urology
Inguinoscrotal swellings.	1.5	Urology
Pure scrotal swellings.	1.5	Urology
Urological emergencies: Urinary retention, obstructive anuria, and obstructed pyelonephritis.	1.5	Urology
Genito-urinary trauma.	1.5	Urology
Congenital anomalies of the upper urinary tract.	1.5	Urology
Congenital anomalies of the lower urinary tract.	1.5	Urology
Revision	1.5	Urology
Revision	1.5	Urology
Total	49.5	

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

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

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

C- Summative Assessment Methods and Schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of periodicals including problem-solving, multiple-choice questions, give a reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, and Research.	During the module
Final practical exam	30%	OSCE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple-choice questions, giving a reason, matching, extended matching, completing and comparing.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	55	40%
Final Practical exam.	41.25	30%
Activities	41.25	30%
Total	137.5	100%

E- Grading for by GPA System:

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

VI. List of references and resources:

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

Urology:

- Campbell-Walsh Urology: 4-Volume Set 11th Edition. By: Alan J. Wein, Louis R. Kavoussi, Alan W. Partin, Craig A. Peters. Elsevier, 2015.
- Smith and Tanagho's General Urology, 18th Edition. By: Jack W. McAninch, Tom F. Lue. McGraw Hill / Medical, 2012.
- Oxford Handbook of Urology (Oxford Medical Handbooks) 3rd Edition. By John Reynard, Simon Brewster, Suzanne Biers. Oxford University Press, 2013.

Pediatrics:

- Nelson Textbook of Pediatrics, 20th Edition. By: Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme, Nina F Schor. W B Saunders Co Ltd, 2015.
- American Academy of Pediatrics Textbook of Pediatric Care, 2nd Edition. By: Thomas K. McInerney, Henry M. Adam, Deborah E. Campbell, Thomas G. DeWitt, Dr. Jane Meschan Foy, Dr. Deepak M. Kamat. American Academy of Pediatrics, 2016.
- Schwartz's Clinical Handbook of Pediatrics (Point (Lippincott Williams & Wilkins)) 5th Edition. By: Joseph J. Zorc, Elizabeth R. Alpern, Lawrence W. Brown, Kathleen M. Loomes, Bradley S. Marino, Cynthia J. Mollen, Leslie J. Raffini. LWW, 2012.

Internal Medicine:

- The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.
- CURRENT Medical Diagnosis and Treatment, 56th Edition. By: Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow. McGraw-Hill Education / Medical ,2017.
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Menoufia Faculty of Medicine



وحدة
ضمان
الجودة

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1.1	1.1.1 to 1,1,12					x	x			x		x	x		x
1.2	1.2.1 to 1.2.7			x		x	x			x		x			x
1.4	1.4.1 to 1.4.8					x	x			x		x	x		x
1.5	1.5.1, 1.5.2	x	x	x	x	x		x	x	x	x	x		X	x
1.6	1.6.1 to 1.6.9	x	x	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 1.8.34	x	x	x	x			x	x		x		x	X	x
1.10	1.10.1 to 1.10.20			x	x	x		x	x	x	x	x		X	x
1.11	1.11.1, 1.11.2					x	x			x		x			x
1.13	1.13.1 to 1.13.11			x		x		x	x	x	x	x		X	
1.15	1.15.1 to 1.15.3			x		x	x		x	x	x	x		X	x
2.9	2.9.1					x	x			x		x			x
3.1	3.1.1 to 3.1.2					x	x			x		x			x
3.4	3.4.1					x	x			x		x			x
3.8	3.8.1					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

<u>Module Coordinator:</u>	<u>Program Coordinator:</u>
Name: Dr. Mohamed Ibrahim Abouzeid	Name: Prof. Dr. Zeinab Kasemy
Signature: Dr. Mohamed Ibrahim Abouzeid	Signature: Prof. Dr. Zeinab Kasemy



Menoufia Faculty of Medicine
Accredited



Obstetrics and Family Medicine

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Obstetrics and family medicine

Code No: OBS/FAML 4202

Department offering the Module : Obstetrics & Gynecology Department , Family Medicine.

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

Academic year/level: Fourth level

Semester: Semester VIII

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by faculty council: 2018

Total hours: 6 . 5 credit hours/ 5 weeks

Teaching hours			
	Lectures	Practical	Activities
Obstetrics & Gynaecology	30	45	90
Family Medicine	9	13.5	27
Total	39	58.5	117

I. Aim of the Module

This module aims to provide the student with essential clinical knowledge and clinical skills regarding common obstetric problems, providing care for the pregnant woman during pregnancy, labor, and postpartum period developing his/her role as a health advisor for good women health via well planned approach and management with emphasis on obstetric problems prevention and health promotion and proper planning of management protocols.



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. Perform structured history taking including obstetric and menstrual history. 1.1.2. Interpret the clinical symptoms of different obstetric cases. 1.1.3. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.4. Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.5. Perform effective eye contact, active listening, and appropriate body language. 1.1.6. Record clinical data in a complete, accurate and retrievable manner. 1.1.7. Present information clearly in written, electronic, and verbal forms.
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. Apply recommended obstetrics related prevention strategies to women throughout the life span. 1.2.5. Practice patient education during an interview with the patient. 1.2.6. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community. 1.2.7. Identify the approach for management of difficult communication including breaking bad news.

<p>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.</p>	<p>1.4.1. Perform physical examination of pregnant women including abdominal and pelvic examination.</p> <p>1.4.2. Interpret the clinical signs of different obstetric cases.</p> <p>1.4.3. Apply the ethics of medical practice when examining patients.</p> <p>1.4.4. Apply proper infection control when dealing with patients.</p>
<p>1.5 Prioritize issues to be addressed in a patient encounter.</p>	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different obstetric cases.</p> <p>1.5.2. Formulate a management plan for different obstetric cases with priority for emergent situations.</p> <p>1.5.3. Discriminate methods of community health Promotion and construct plan for dealing with high-risk conditions.</p>
<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>	<p>1.6.1. Select the proper investigations for different obstetric cases.</p> <p>1.6.2. Interpret the findings of basic investigations of obstetric cases.</p> <p>1.6.3. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p>
<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Work with other healthcare professions in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>
<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Describe the basic physiological background of fertilization, implantation, and early development of the fetus, placenta, and cord</p> <p>1.8.2. Enumerate physiological changes with pregnancy.</p> <p>1.8.3. Define complications and lines of management of abortion, ectopic pregnancy, vesicular mole, antepartum hemorrhage and shock.</p> <p>1.8.4. Outline definition, indications and safety of ultrasound in obstetrics and findings in different conditions</p> <p>1.8.5. Explain the physiology, mechanism, and management of normal labor.</p>

	<p>1.8.6. Define causes, diagnosis, and management of different fetal presentations and multiple pregnancies</p> <p>1.8.7. Enumerate all the causes, diagnosis and competently rank in order the lines of management of complications of third stage of labor, especially stressing on postpartum hemorrhage</p> <p>1.8.8. Recognize physiological changes during puerperium with stress on causes, pathology, diagnosis, differential diagnosis, and management of puerperal pyrexia, especially puerperal sepsis</p> <p>1.8.9. Define the indications and complications of cesarean section</p> <p>1.8.10. Identify components of antenatal care and importance of nutritional and psychological care during pregnancy/lactation and post-natal period</p> <p>1.8.11. Identify the importance of counselling sessions and health education for females in reproductive period of life.</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. Formulate the collected data during history taking and clinical examination to reach the patients psychiatric and neurological diagnosis and differential diagnosis.</p> <p>1.10.2. Integrate the basic bio-psychosocial and behavioral model in psychiatric practice.</p> <p>1.10.3. Formulate a differential diagnosis for a case of convulsions with fever.</p> <p>1.10.4. Construct differential diagnoses of patients with common obstetrics conditions.</p> <p>1.10.5. Demonstrate an analytic approach to different obstetrics clinical situations such as bleeding in early pregnancy, medical disorders with pregnancy antepartum and postpartum hemorrhage.</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1. Perform obstetrics procedures such as normal labor, and partogram.</p>

<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.8. Apply appropriate management plan to provide culturally competent obstetrics health care.</p> <p>1.13.9. Conduct proper health care for females during pregnancy and postnatal period according to guidelines addressed in national Basic Benefit Package provided by MOHP.</p> <p>1.13.10. Relate knowledge of contraception, and sterilization in shared decision making with patients in clinical scenarios</p>
<p>1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1. Conduct first aid measures for obstetrics emergency</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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 either 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
Premarital care	1.5	Family Medicine
Antenatal care	1.5	Family Medicine
Nutrition during pregnancy	1.5	Family Medicine
Post-partum care	1.5	Family Medicine
Counselling with women in reproductive period of life (contraception counselling)	1.5	Family Medicine
Revision	1.5	Family Medicine
Maternal adaptation to pregnancy, diagnosis of pregnancy	1	Obstetrics
Bleeding in early pregnancy	1	Obstetrics
Hypertensive disorder with pregnancy, DIC	1.5	Obstetrics
Diabetes with pregnancy, UTI in pregnancy	1.5	Obstetrics
Vomiting with pregnancy, anemia with pregnancy, Heart disease with pregnancy.	1.5	Obstetrics
Thromboembolism during pregnancy, RH isoimmunization	1.5	Obstetrics
Assessment of fetal wellbeing	1	Obstetrics
Infectious disease (TORCH) 2. IUFD	1	Obstetrics
PROM & preterm labour, post-term pregnancy	1.5	Obstetrics
Polyhydramnios, oligohydramnios, shoulder dystocia	1.5	Obstetrics
IUGR & macrosomia, multiple pregnancy	1.5	Obstetrics
Antepartum Haemorrhage	1	Obstetrics
Female pelvis, fetus, fetal skull	1	Obstetrics

Physiology & management of normal labour	1.5	Obstetrics
Occipito-posterior, face, brow & compound presentation	1.5	Obstetrics
Breech, shoulder, cord presentation and prolapse	1.5	Obstetrics
Contracted pelvis, Obstructed labour	1.5	Obstetrics
Abnormal uterine action , rupture uterus	1.5	Obstetrics
Complication of 3rd stage of labour	1	Obstetrics
Normal and abnormal puerperium, fetal birth injuries, fetal asphyxia	1.5	Obstetrics
Operative Obstetrics	1	Obstetrics
Instruments	1	Obstetrics
Revision	1.5	Obstetrics
Total	49	
Clinical		
Topic	Teaching Hours	Department
Initial history taking *General , obstetrical abdominal obstetrical pelvic examination ,doing pregnancy test	3	Obstetrics
Clinical Activities	3	Obstetrics
Approach to pregnant women with abdominal pain, vaginal bleeding in early pregnancy	3	Obstetrics
Clinical Activities	3	Obstetrics
Identification and assessing high risk pregnancy during ANC (DM,Preclamsia,Anemia)	3	Obstetrics
Identification and assessing high risk pregnancy during ANC (placenta previa, Cardic disease)	3	Obstetrics
Antenatal care	3	Family Medicine
Clinical activities.	3	Obstetrics
An Approach to pregnant women with PROM and preterm labor.	3	Obstetrics
Clinical activities.	3	Obstetrics
History taking from a woman in labour, monitoring labour progress by partogram.	3	Obstetrics
Clinical activities.	3	Obstetrics
Intrapartum fetal heart rate monitoring, management of 1st ,2nd ,3rd stage of labour	3	Obstetrics
An approach to women with postpartum haemorrhage	3	Obstetrics
Postpartum care, contraception counselling	3	Family medicine
Clinical activities.	3	Obstetrics
Revision	3	Obstetrics
Revision	3	Family Medicine
Revision	3	Family Medicine

Revision	1.5	Family Medicine
Total	58.5	

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

c) Skill lab

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of periodicals including problem-solving, multiple-choice questions, give a reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, and Research.	During the module
Final practical exam	30%	OSCE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple-choice questions, giving a reason, matching, extended matching, completing and comparing.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	65	40%
Final Practical exam.	48.75	30%
Activities	48.75	30%
Total	162.5	100%

E- Grading for by GPA System:

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



Menoufia Faculty of Medicine



VI. List of references and resources:

1. Department Book.

2. Essential Books:

Obstetrics:

- Williams Obstetrics: 23rd Edition 23rd Edition. By: F. Cunningham, Kenneth Leveno, Steven Bloom, John Hauth, Dwight Rouse, Catherine Spong. McGraw-Hill Professional, 2009.
- Clinical Obstetrics and Gynaecology 3rd Edition. By: Andrew Thomso, Philip Owen, Brian A. Magowan. Saunders Ltd, 2014.
- Lippincott Williams & Wilkins Beckmann and Ling's Obstetrics and Gynecology. By: Dr. Robert Casanova. LWW, 2018.

Family Medicine:

- Oxford Textbook of Primary Medical Care. By: Roger Jones. Oxford University Press, 2004.
- Textbook of Family Medicine 9th Edition. By: Rakel, Robert E. Saunders; 2015.
- Swanson's Family Medicine Review 8th Edition. By: Alfred F. Tallia, Joseph E. Scherger, Nancy W. Dickey. Elsevier, 2016.
- CURRENT Diagnosis & Treatment in Family Medicine, 4th Edition 4th Edition. By: Jeannette South-Paul, Samuel Matheny, Evelyn Lewis. McGraw Hill / Medical, 2015.

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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres



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Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods								Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Skill Lab	Self-directed study	Formative Assessment		Summative Assessment				
										Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1,7					X	X				X		X	X		X
1.2	1.2.1 to 1.2.7			X		X	X				X		X			X
1.4	1.4.1 to 1.4.4					X	X	X			X		X	X		X
1.5	1.5.1 to 1.5.3	X	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	X		X	
1.7	1.7.1 to 1.7.3			X		X				X		X				
1.8	1.8.1 to 1.8.11	X	X	X	X				X	X		X		X	X	X
1.10	1.10.1 to 1.10.5			X	X	X			X	X	X	X	X		X	X
1.11	1.11.1					X	X	X			X		X			X
1.13	1.13.1 to 1.13.10			X		X			X	X	X	X	X		X	
1.15	1.15.1			X		X	X			X	X	X	X		X	X
2.9	2.9.1					X	X				X		X			X
3.1	3.1.1 to 3.1.2					X	X				X		X			X
3.4	3.4.1					X	X				X		X			X
3.8	3.8.1					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:	Program Coordinator:
Name: Dr. Alaa Masood	Name: Prof. Dr. Zeinab Kasemy

Vertical Integration Module (8)

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Vertical Integration Module (8)

Department offering the Module: Internal Medicine

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

Academic year/level: Fourth level

Semester: Semester VIII

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 0.5 credit hours.

Teaching Hours; 7.5 hours/ Lectures

A- Professional Information

I. Aim of the Module:

To provide the students with the clinical skills of history taking of different symptomatology, interpreting the examination of the patient, and a final diagnosis of the patient while using effective communication skills.



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. Describe the different items in history taking. 1.1.2. Identify the important questions to ask for the patient with HCV with renal affection, 1.1.3. Identify the important questions to ask for the patient with hepatorenal syndrome, 1.1.4. Identify the important questions to ask for the patient with hypertension with pregnancy, 1.1.5. Identify the important questions to ask for the patient with pregnancy with kidney affection, 1.1.6. Identify the important questions to ask for the patient with HELP Syndrome 1.1.7. Analyze the symptoms of patient with HCV with renal affection, hepatorenal syndrome, hypertension with pregnancy, pregnancy with kidney affection, and HELP Syndrome
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
1.4 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. Interpret the examination findings in patients with HCV with renal affection. 1.4.2. Interpret the examination findings in patients with hepatorenal syndrome. 1.4.3. Interpret the examination findings in patients with hypertension with pregnancy, pregnancy with kidney affection, and HELP Syndrome. 1.4.4. Interpret the examination findings in patients with pregnancy with kidney affection, 1.4.5. Interpret the examination findings in patients with HELP Syndrome.

1.5	Prioritize issues to be addressed in a patient encounter.	1.5.1.	Apply priority setting while formulating a differential diagnosis for different cases.
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	1.6.1.	Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.
		1.6.2.	Interpret laboratory and radiological investigations of any patient.
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.	Describe the different effects of HCV in kidney.
		1.8.2.	List different types of hepatorenal syndrome.
		1.8.3.	Differentiate between the 2 types of hepatorenal syndrome.
		1.8.4.	Describe the criteria for each type of hepatorenal syndrome.
		1.8.5.	Outline management of hepatorenal syndrome.
		1.8.6.	Describe changes to the kidney during pregnancy.
		1.8.7.	List causes of proteinuria in pregnancy.
		1.8.8.	List the different causes of hypertension in pregnancy.
		1.8.9.	Define HELP syndrome.
		1.8.10.	Differentiate HELP syndrome from other causes of thrombocytopenia in pregnancy
1.10	Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	1.10.1.	Integrate the results of history, physical and laboratory tests into a correct diagnosis and create an individualized treatment plan.
		1.10.2.	Formulate a differential diagnosis for kidney affection in HCV.
		1.10.3.	Formulate a differential diagnosis for kidney affection in pregnancy.
		1.10.4.	Formulate a differential diagnosis for hypertension in pregnancy.
		1.10.5.	Formulate a differential diagnosis for HELP syndrome.

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. Share patients or their caregivers in decision making regarding management plans. 1.13.4. Gather and organize material from various sources (including library, electronic and online resources). 1.13.5. Formulate an approach for management of pregnant females with hypertension. 1.13.6. Formulate an approach for management of pregnant females with proteinuria.
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Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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 either 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:

Topic	Teaching Hours
HCV and kidney	2
Hepatorenal syndrome	1.5
Hypertension in pregnancy	1.5
Pregnancy and kidney	1.5.
HELP syndrome	1
Total	7.5



Menoufia Faculty of Medicine



IV– Teaching and learning methods

The following teaching / learning methods are used to promote better understanding:

- **Interactive Lectures/online**
 - **Self-directed learning**
- **Interactive lectures:** In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying topic through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.
- **Self-directed learning:** Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lectures
- Summative Written: MCQ, EMQs, complete, true false and problemsolving

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments: Final-term examination: 100 % (12.5 marks)

VI. List of references and resources:

- **Module notes.**
- **Essential Books:**

The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.

Decision Making in Medicine 3rd Edition. By: Stuart B. Mushlin, Harry L. Greene. Mosby, 2009.

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.

Module Coordinator: Dr. Enas Zahran	Program Coordinator: Prof. Dr. Zeinab Kasemy
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Semester IX



Menoufia Faculty of Medicine
Assiut



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Neuropsychiatry

University: Menoufia

Faculty: Medicine

A - Administrative Information

Module Title : Neuropsychiatry

Code No: PSYCH/NEUE/NEUS 5101

Department offering the Module: Neuropsychiatry, Neurosurgery and Pediatrics department

Program on which the Module is given: Menoufia M.B.B.Ch Credit- hour Program
(5+2)**Academic year:** Fifth Year

Semester: IX

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 6 credit hours/ 5 weeks

	Teaching hours		
	Lectures	Practical	Activities
Neuropsychiatry	24	36	72
Pediatrics	6	9	18
Neurosurgery	6	9	18
Total	36	54	108

B- Professional Information

I- Aim of the Module

To improve the students with knowledge, clinical skills and attitudes required to deal with the commonly encountered psychiatric disorders, and neurological disorders including surgically managed neurological disorders with emphasis on primary care management of emergency cases.

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.	<ul style="list-style-type: none"> 1.1.1. Perform structured history taking including psychosocial history, social history, assessment of family support according to age group. 1.1.2. Conduct neurological history taking according to age group. 1.1.3. Interpret the clinical symptoms of different neurological and psychiatric cases 1.1.4. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.5. Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.6. Perform effective eye contact, active listening, and appropriate body language. 1.1.7. Record clinical data in a complete, accurate and retrievable manner. 1.1.8. Present information clearly in written, electronic, and verbal forms.
1.2 Adopt an empathic and holistic approach to the patients and their problems.	<ul style="list-style-type: none"> 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. Conduct a psychiatric interview while showing empathy, with appropriate non-verbal communication, active listening, respect toward cultural variation, and proper initiation and closure of the interview. 1.2.5. Practice patient education during an interview with the patient. 1.2.6. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community. 1.2.7. Identify the approach for management of difficult communication including breaking bad news.
1.3	

<p>Assess the mental state of the patient.</p>	<p>1.3.1. Assess the mental state of patients to elicit psychiatric symptoms and signs and define different neurological signs and symptoms of the cognitive function according to age group.</p> <p>1.3.2. Apply proper communication skills with patients through different steps of the interview.</p>
<p>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.</p>	<p>1.4.1. Perform correct neurological examination and recognize its abnormalities according to age group.</p> <p>1.4.2. Apply head circumference measure and recognize their abnormalities.</p> <p>1.4.3. Perform correct clinical examination for children with convulsion.</p> <p>1.4.4. Perform correct clinical examination with Guliane barre.</p> <p>1.4.5. Interpret the clinical signs of different neurological and psychiatric cases</p> <p>1.4.6. Apply the ethics of medical practice when examining patients.</p> <p>1.4.7. Apply proper infection control when dealing with patients.</p>
<p>1.5 Prioritize issues to be addressed in a patient encounter.</p>	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different neurological and psychiatric cases.</p> <p>1.5.2. Formulate a management plan for different neurological and psychiatric disorders with priority for emergent situations.</p>
<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>	<p>1.6.1. Select the proper investigations for different neurological cases with emphasis coma in adults and pediatrics.</p> <p>1.6.2. Interpret the findings of basic investigations of neurological.</p> <p>1.6.3. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p> <p>1.6.4. Apply an algorithm to define when to order CT brain for a head trauma patient.</p> <p>1.6.5. Apply an algorithm to define when to order CT cervical spine for a patient.</p>
<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Work with other healthcare professions in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>

1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.

- 1.8.1. Describe the anatomical, biochemical and cellular mechanisms of the nervous system that underlie common psychiatric and neurological disease.
- 1.8.2. Identify neurophysiology, neuro-biochemistry, neuroanatomy, neuropathology, neuro-pharmacology as an etiological basis of diseases and to utilize in treatment of them
- 1.8.3. Describe and interpret the common psychiatric and neurologic signs and symptoms in relation to different disorders.
- 1.8.4. Identify risk factors, diagnosis, treatment and prognosis for stroke, hemiplegia and paraplegia.
- 1.8.5. Classify different disorders of peripheral and cranial nerves along with their risk factors, management and prognosis.
- 1.8.6. Describe the etiopathogenesis of epilepsy with its different types and management protocol
- 1.8.7. Describe the pathology of multiple sclerosis and its diagnostic criteria, complications and treatment
- 1.8.8. Identify different movement disorders including ataxia including causes, and approach for management
- 1.8.9. Outline different disorders of muscle and neuromuscular junction with their approach of management.
- 1.8.10. Classify different anxiety disorders, bipolar and related disorders and depressive disorders with diagnostic criteria and general lines for treatment.
- 1.8.11. Identify different sleep disorders ,sleep stages,and polysomnography
- 1.8.12. Discuss the risk factors, types and approach of treatment for addiction.
- 1.8.13. Describe medically unexplained symptoms, non organic pain, chronic fatigue syndrome, psychosomatic diseases
- 1.8.14. Identify different child and adolescent and women psychiatry and their approach of management.
- 1.8.15. Outline diagnostic criteria for dementia, delirium, and different amnesic disorders and general lines of treatment
- 1.8.16. Identify the principles of emergency psychiatry
- 1.8.17. Outline different Investigations in order of importance , to decide the most important of them and to interpret diagnostic tests(ECG, electroencephalogram (EEG), blood tests, radiographs, computed tomography (CT) and magnetic resonance imaging (MRI) scans.
- 1.8.18. Explain the basic mental functions and their relation to behavior and illness.

- 1.8.19. Identify common types of cognitive impairment including delirium and dementia.
- 1.8.20. Describe the nature, mechanism of action, common indications, side effects, and drug interactions of commonly prescribed pharmacological agents in neurological and psychiatric disorders.
- 1.8.21. Define cerebral palsy in pediatrics.
- 1.8.22. Identify causes of cerebral palsy in pediatrics.
- 1.8.23. Outline causes of floppy infant.
- 1.8.24. Identify how to diagnose a child with hypotonia.
- 1.8.25. Describe criteria of poliomyelitis weakness.
- 1.8.26. Define seizures and its causes in children.
- 1.8.27. Describe types and classification of seizures in pediatrics.
- 1.8.28. Define febrile convulsions.
- 1.8.29. Identify different causes, clinical picture and treatment of febrile convulsions.
- 1.8.30. Define status epilepticus in pediatrics.
- 1.8.31. Identify different causes of status epilepticus.
- 1.8.32. Outline definition and clinical picture of cyanotic spells.
- 1.8.33. Identify clinical presentation of Duchene muscle dystrophy.
- 1.8.34. Determine definition, characters and classifications of muscle dystrophies.
- 1.8.35. Describe different types and clinical picture of anterior horn cell disease.
- 1.8.36. Identify causes and clinical presentation of Guillain-Barré syndrome.
- 1.8.37. Outline definition, clinical manifestations and investigations of Guillain-Barré syndrome.
- 1.8.38. Define macrocephaly in pediatrics.
- 1.8.39. Identify different causes and clinical picture of macrocephaly.
- 1.8.40. Describe normal CSF formation and circulation.
- 1.8.41. Define hydrocephalus in pediatrics
- 1.8.42. Describe different types, clinical picture of hydrocephalus in pediatrics.
- 1.8.43. Outline causes and complications of hydrocephalus in pediatrics.
- 1.8.44. Identify different causes that lead to abnormal head shape in pediatrics.
- 1.8.45. Identify different causes, types and clinical picture of microcephaly in pediatrics.
- 1.8.46. Identify classification, clinical picture and treatment of craniostenosis.
- 1.8.47. Describe the different types of post traumatic cranial hematoma and how to differentiate between each type of it.

	<p>1.8.48. Enumerate the different types of hydrocephalus and outline the management of each type.</p> <p>1.8.49. Outline the management of head trauma.</p> <p>1.8.50. Enumerate the clinical picture of peripheral nerve injury of the upper limb; Median, ulnar and radial nerves.</p> <p>1.8.51. Outline the different types of peripheral nerve injury the management of each type.</p> <p>1.8.52. Describe the clinical picture of lumbar disc prolapse and outline the different methods of management.</p> <p>1.8.53. Describe the clinical picture of the brain abscess and outline the management.</p> <p>1.8.54. Outline the clinical picture of brain tumors and describe the management steps.</p>
1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	<p>1.10.1. Formulate the collected data during history taking and clinical examination to reach the patients psychiatric and neurological diagnosis and differential diagnosis.</p> <p>1.10.2. Integrate the basic bio-psychosocial and behavioral model in psychiatric practice.</p> <p>1.10.3. Formulate a differential diagnosis for a case of convulsions with fever.</p>
1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.	<p>1.11.1. Perform Glasgow coma scale assessment for a patient in coma.</p>
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.	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p>

1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	1.15.1. Judge the patient whether is emergent to perform procedure by examination the GCS and the pupils. 1.15.2. Design a proper management plan for cyanotic spells. 1.15.3. Formulate a management plan for convulsions in pediatrics. 1.15.4. Design a proper management plan for status epilepticus
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Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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-	5.2.1 Demonstrate respect towards colleagues.

sponsibilities and engaging in shared decision-making for effective patient management.

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 either 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		
TOPICS	Teaching Hours	Department
Cerebrovascular Disorders 1	1	Neurology
Headache	1	Neurology
Coma	1	Neurology
Movement Disorders 1	1	Neurology
Movement Disorders 2	1	Neurology
Ataxias	1	Neurology
Cranial Nerve Disorders	1	Neurology
Peripheral nerves Disorders	1	Neurology
Multiple sclerosis	1	Neurology
Epilepsy	1	Neurology
Spinal Cord Disorders	1	Neurology
Neuromuscular disorders & Muscle Diseases	1	Neurology
Dementia	1	Neurology
Spinal cord disease	1	Neurology
Sleep disorders	1	Psychiatry
Depression	1	Psychiatry
Addiction, cannabinoid and nicotine addiction	1	Psychiatry
Psychopharmacology	1	Psychiatry
Child psychiatry	1	Psychiatry

Anxiety disorders	1	Psychiatry
Psychotic disorders	1	Psychiatry
Somatisation disorder	1	Psychiatry
Psychiatric emergency and suicide management	2	Psychiatry
Encephalopathies	1.5	Pediatrics
Seizures	1.5	Pediatrics
Muscle diseases	1	Pediatrics
Neuromuscular diseases	1	Pediatrics
Abnormal cranial volume and shape	1	Pediatrics
Low back pain , lumbar disc prolapse	2	Neurosurgery
Brain tumor	2	Neurosurgery
Spinal cord injury	2	Neurosurgery
Total		
Clinical		
	Teaching Hours	Department
History 1	1.5	Neurology
History 2	1.5	Neurology
Cranial Nerve 1	1.5	Neurology
Cranial Nerve 2	1.5	Neurology
Motor Examination 1	1.5	Neurology
Motor Examination 2	1.5	Neurology
Sensory	1.5	Neurology
Ataxia	1.5	Neurology
Speech	1.5	Neurology
Mental state	1.5	Neurology
Symptomatology	3	Psychiatry
Psychotic disorders	3	Psychiatry
Mood disorders and anxiety	1.5	Psychiatry
Substance disorder	1.5	Psychiatry
Child psychiatry	1.5	Psychiatry
Medical unexplained symptoms	1.5	Psychiatry
Insomnias and sleep wake disorders	1.5	Psychiatry
Suicide and psychotherapy	1.5	Psychiatry
Neurological examination	3	Pediatrics
Cerebral palsy	1.5	Pediatrics
Neuromuscular diseases	3	Pediatrics
Abnormal cranial volume	1.5	Pediatrics

Skull fracture , head trauma	2	Neurosurgery
Epidural hematoma	1	Neurosurgery
Subdural hematoma	1	Neurosurgery
Hydrocephalus	1	Neurosurgery
Congenital anomalies	1	Neurosurgery
Nerve injury	3	Neurosurgery
Total	48	

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of periodicals including problem-solving, multiple-choice questions, give a reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, and Research.	During the module
Final practical exam	30%	OSCE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple-choice questions, giving a reason, matching, extended matching, completing and comparing.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	60	40%
Final Practical exam.	45	30%
Activities	45	30%
Total	150	100%

E- Grading for by GPA System:

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



Menoufia Faculty of Medicine



VI. List of references and resources:

Lectures notes.

Essential Books:

Neurology:

- CURRENT Diagnosis & Treatment Neurology, Second Edition (LANGE CURRENT Series) 2nd Edition. By: John Brust. McGraw-Hill Education / Medical, 2011.
- Merritt's Neurology Thirteenth Edition. By: Elan D. Louis, Stephan A. Mayer, Lewis P. Rowland. LWW; Thirteenth edition, 2015.

Psychiatry:

- 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.

Pediatrics:

- Nelson Textbook of Pediatrics, 20th Edition. By: Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme, Nina F Schor. W B Saunders Co Ltd, 2015.
- American Academy of Pediatrics Textbook of Pediatric Care, 2nd Edition. By: Thomas K. McInerney, Henry M. Adam, Deborah E. Campbell, Thomas G. DeWitt, Dr. Jane Meschan Foy, Dr. Deepak M. Kamat. American Academy of Pediatrics, 2016.
- Schwartz's Clinical Handbook of Pediatrics (Point (Lippincott Williams & Wilkins)) 5th Edition. By: Joseph J. Zorc, Elizabeth R. Alpern, Lawrence W. Brown, Kathleen M. Loomes, Bradley S. Marino, Cynthia J. Mollen, Leslie J. Raffini. LWW, 2012.

Neurosurgery:

- Principles of Neurosurgery, 2 edition. By: Richard G. Ellenbogen, Setti S. Rengachary. Mosby, 2004.
- Neurosurgery Fundamentals 1st Edition. By: Nitin Agarwal. Thieme;,2018

VII- Facilities required for teaching and learning:

- 7- Faculty Lecture halls
- 8- Faculty library for textbooks & electronic library for web search.
- 9- Audiovisual aids as boards, data show and computers.
- 10- Skill lab and patient simulators
- 11- Clinical round teaching rooms.
- 12- Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods							Assessment Methods						
		Recorded Lecture	Interactive Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Self-directed study	Formative Assessment		Summative Assessment				
									Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.8					X	X			X		X	X		X
1.2	1.2.1 to 1.2.7			X		X	X			X		X			X
1.3	1.3.1, 1.3.2					X	X			X		X			X
1.4	1.4.1 to 1.4.7					X	X			X		X	X		X
1.5	1.5.1, 1.5.2	X	X	X	X	X		X	X	X	X	X		X	X
1.6	1.6.1 to 1.6.5	X	X	X	X	X	X	X	X	X	X	X		X	
1.7	1.7.1, 1.7.3			X		X			X		X				
1.8	1.8.1 to 1.8.54	X	X	X	X			X	X		X		X	X	X
1.10	1.10.1 to 1.10.3			X	X	X		X	X	X	X	X		X	X
1.11	1.11.1					X	X			X		X			X
1.13	1.13.1 to 1.13.7			X		X		X	X	X	X	X		X	
1.15	1.15.1 to 1.15.4			X		X	X		X	X	X	X		X	X
2.9	2.9.1					X	X			X		X			X
3.1	3.1.1 to 3.1.2					X	X			X		X			X
3.4	3.4.1					X	X			X		X			X
3.8	3.8.1					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. Alaa Masood

Program Coordinator: Prof. Dr.
Zeinab Kasemy

Ophthalmology

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Ophthalmology

Code No: OPTH 5104

Department offering the Module: Ophthalmology

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

Academic year/level: Fifth level

Semester: Semester IX

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by faculty council: 2018

Total hours: 5 credit hours.

Teaching hours			
	Lectures	Practical	Activities
<i>Ophthalmology</i>	30	45	90

B- Professional Information

I. Aim of the Module

This module aims to provide the students with clinical knowledge and skills necessary to diagnose common ophthalmology disorders, and deal with emergent ophthalmology cases, considering the concepts of health promotion and cost effectiveness.

II- Learning Outcomes of the Module:

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

Key competency	Module ILOs
1.1 Take and record a structured, patient-centered history.	1.1.1. Take a comprehensive history from patients with different ophthalmology disorders. 1.1.2. Interpret the clinical symptoms of different ophthalmologic cases. 1.1.3. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.4. Apply the ethics of medical practice when dealing with patients and colleagues
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 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.
1.4 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 complete ophthalmologic examination, 1.4.2. Practice assessment of vision. 1.4.3. Perform examination of eye motility. 1.4.4. Practice pupil examination and fundus examination. 1.4.5. Apply the ethics of medical practice when dealing with patients and colleagues. 1.4.6. Interpret the clinical signs of different ophthalmology cases. 1.4.7. Apply the ethics of medical practice when examining patients. 1.4.8. Apply proper infection control when dealing with patients.
1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1. Apply priority setting while formulating a differential diagnosis for different ophthalmological cases 1.5.2. Formulate a management plan for different ophthalmological disorders with priority for emergent situations.
1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	1.6.1. Select the proper investigations for different ophthalmologic cases 1.6.2. Interpret the findings of basic investigations of ophthalmology including visual assessment tests.

<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Apply the rules of referral for complex or cases of uncertain diagnosis.</p> <p>1.7.2. Work in a team with other colleagues and other health care members to achieve best management strategy especially in complicated cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>
<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Describe the basic physiological background of vision, and anatomy of the eye.</p> <p>1.8.2. Outline eyelid anomalies, lash disorders and lacrimal system disorders.</p> <p>1.8.3. Describe different orbit diseases.</p> <p>1.8.4. Describe different external ocular (corneal and conjunctival) disorders.</p> <p>1.8.5. Describe aqueous formation and drainage, angle of anterior chamber and disorders related to their disturbances.</p> <p>1.8.6. Identify methods of assessment of vision, refractive errors and how to correct them.</p> <p>1.8.7. Describe lens disorders and how to manage</p> <p>1.8.8. Outline different medical and surgical retinal disorders.</p> <p>1.8.9. Describe nerves involved in ophthalmology and diseases affecting them</p> <p>1.8.10. Describe ocular motility and alignment disorders.</p> <p>1.8.11. List different systemic diseases affecting eye and their clinical manifestations.</p> <p>1.8.12. Describe uveitis and its complication.</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1 Construct a differential diagnosis for different ophthalmological cases based on history, examination and investigation findings</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1. Perform IOP measurement</p> <p>1.11.2. Perform visual field testing</p> <p>1.11.3. Apply the ethics of medical practice when performing diagnostic or intervention procedures.</p>
<p>1.13 Establish patient-centered management plans in partnership with the patient, his/her family and other health professionals as appropriate,</p>	<p>1.13.1 Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2 Apply continuous medical education and research to keep up-to-date with the international advancement in medicine and surgery.</p>

using Evidence Based Medicine in management decisions.	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).
1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	1.15.1. Provide first aid measures for a case of eye trauma.

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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 either 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
Introduction to ophthalmology (history and clinical examination)	1.5
Oculoplastic diseases 1 (lid)	2
Oculoplastic diseases 2 (orbit)	2
Oculoplastic diseases 3 (lacrimal)	2
Conjunctival diseases	2
Corneal diseases	2
Errors of refraction	2
Uvea	2
Lens disorders	2.5
Glaucoma	2
Retina	2.5

Squint	2
Neurophthalmology	2
Ocular trauma	2
Revision	1.5
Total	30
Clinical	
Topic	Teaching Hours
History and clinical examination	3
Lid (How to do: evaluation of degree of ptosis, levator function test)	3
Lacrimal- Orbit (How to do: regurgitation test)	3
Conjunctiva	3
Cornea	3
Errors of refraction (How to do: visual acuity testing, identification of lenses: spherical or cylindrical / convex or concave)	3
Uvea	3
Lens (How to do: examination of red reflex, examination of iris shadow)	3
Glaucoma 1 (How to do: Light projection test, Confrontation test)	3
Glaucoma 2	3
Retina 1	3
Retina 2	3
Strabismus (How to do: ocular motility test, Hirschberg test, Cover test)	2.5
Ocular trauma	2.5
Neuro-ophthalmology (How to do: pupillary light reflex)	2
Revision	2
Total	45

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

Clinical rounds: using

- Web based video and Multimedia applications
- Problem solving

3. Self-directed Learning



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V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

- **Formative:**

This form of assessment is designed to help the students to identify areas for improvement. It includes multiple-choice questions, problem-solving exercises and independent learning activities in all subjects. 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
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% Participation in the tutorials, TBL, Research.	During the module
Final practical exam	30%	OSCE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, give a reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	50	40%
Final Practical exam.	37.5	30%
Activities	37.5	30%
Total	125	100%

E- Grading for by GPA System:

The Percentage	Symbols	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:

1. Lectures notes prepared in the form of a book authorized by the department.
2. Online playlist lectures loaded on EKB platform
3. Textbooks:
 - Clinical ophthalmology: A systematic approach. 8th ed. Bowling B. Kanski. W B Saunders; 2015.
 - *Oxford Handbook of Ophthalmology*, 3 edition. By: Alastair Denniston, Philip Murray (eds), Oxford Medical Handbooks, 2014.
 - The wills eye manual: Office and emergency room diagnosis and treatment of eye disease. 7th ed. By: Bagheri N, Wajda B, Calvo C, Durrani A, editors. Lippincott Williams and Wilkins; 2016

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- Hospital wards, outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods						Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Self-directed study	Formative Assessment		Summative Assessment				
								Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1,1,4					X			x		x	x		x
1.2	1.2.1 to 1.2.3			x		X			x		x			x
1.4	1.4.1 to 1.4.8					X			x		x	x		x
1.5	1.5.1, 1.5.2	x	x	x	x	X	x	x	x	x	x		x	x
1.6	1.6.1, 1.6.2	x	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 1.8.12	x	x	x	x		x	x		x		x	x	x
1.10	1.10.1			x	x	X	x	x	x	x	x		x	x
1.11	1.11.1 to 1.11.3					X			x		x			x
1.13	1.13.1 to 1.13.7			x		X	x	x	x	x	x		x	
1.15	1.15.1			x		X		x	x	x	x		x	x
2.9	2.9.1					tx			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		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

<u>Module Coordinator</u>	<u>Program Coordinator:</u>
Name: Dr Rana Abou Ashour	Name: Prof. Dr. Zeinab Kasemy



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Ear, Nose, and Throat

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Ear, Nose, and Throat

Code No: ENT 5102

Department offering the Module : Otorhinolaryngology

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

Academic year/level: Fifth level

Semester: Semester IX

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by faculty council: 2018

Credit hours: 4.5 credit hours/ 4 weeks

	Teaching hours		
	Lectures	Practical	Activities
Otorhinolaryngology	27	40.5	81

B-Professional information

I- Aim of the Module

To provide students with an appropriate foundation of knowledge covering ENT emergencies and common diseases in the ear, nose, throat, and head & neck in children and adults enabling them to recognize important clinical ENT lesions and be familiar with recent methods of their diagnosis and proper 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 and record comprehensive patient history from an ear case. 1.1.2. Interpret ear complaints according to the type of disease and disease process. 1.1.3. Interpret nasal complaints according to the type of disease and disease process. 1.1.4. Interpret pharyngeal complaints according to the type of disease and disease process. 1.1.5. Interpret laryngeal complaints according to the type of disease and disease process. 1.1.6. Deal with patients in a compassionate and altruistic manner. 1.1.7. Recognize the ethical and legal issues involved in patient –doctor communication.
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 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.
1.4 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 adequate basic ear examination for common cases. 1.4.2. Perform adequate basic nasal examination. 1.4.3. Perform adequate basic pharyngeal examination. 1.4.4. Perform adequate basic laryngeal examination. 1.4.5. Interpret the clinical signs of different ENT cases. 1.4.6. Apply the ethics of medical practice when examining patients. 1.4.7. Apply proper infection control when dealing with patients.
1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1. Apply priority setting while formulating a differential diagnosis for different ophthalmological cases.

<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>	<p>1.6.1. Select the proper investigations for different ENT cases.</p> <p>1.6.2. Interpret the results of basic ear investigations.</p> <p>1.6.3. Interpret the results of basic nasal investigations.</p> <p>1.6.4. Interpret the results of basic pharyngeal investigations.</p> <p>1.6.5. Interpret the results of basic laryngeal investigations.</p>
<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Apply the rules of referral for complex cases or cases of uncertain diagnosis.</p> <p>1.7.2. Work in a team with other colleagues and other health care members to achieve best management strategy especially in complicated cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>
<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Describe basic, applied, and surgical anatomical facts of the ear.</p> <p>1.8.2. Recognize the etiopathogenesis, and management of common diseases of external ear.</p> <p>1.8.3. Discuss the etiology, pathology, clinical picture, and treatment of common diseases of the middle ear.</p> <p>1.8.4. Outline the complications of otitis media and the clinical presentation of each complication.</p> <p>1.8.5. Identify the pathology, types, clinical picture, investigations, and treatment lines of otosclerosis.</p> <p>1.8.6. Describe the pathology, etiology, and management of Meniere disease.</p> <p>1.8.7. Outline the clinical picture and treatment options of acoustic neuroma</p> <p>1.8.8. Identify the main symptoms of the ear with a differential diagnosis of underlying causes</p> <p>1.8.9. Describe basic, applied, and surgical anatomical facts of the nose.</p> <p>1.8.10. Recognize the clinical picture of different disorders of the external nose and their treatment</p> <p>1.8.11. Discuss different types of inflammatory disorders of the nose and their management.</p>

- 1.8.12. Outline different disorders of the nasal septum, their clinical presentations, and treatment lines.
- 1.8.13. Describe the etiology, clinical picture, investigations, and treatment of acute rhinosinusitis.
- 1.8.14. Differentiate between the types and management of chronic rhinosinusitis.
- 1.8.15. Outline the complications of sinusitis and their approaches to management.
- 1.8.16. Identify the pathology, clinical presentation, investigations, and treatment of allergic rhinitis.
- 1.8.17. Differentiate between different nasal masses and their management.
- 1.8.18. Identify the etiology, sources, first aid, assessment, and treatment of epistaxis.
- 1.8.19. Describe basic, applied, and surgical anatomical facts of the pharynx.
- 1.8.20. Discuss different disorders of the nasopharynx, their clinical picture, and treatment.
- 1.8.21. Differentiate between different oropharyngeal disorders and their approach to management.
- 1.8.22. Identify different disorders of the hypopharynx, their clinical presentation, and treatment options.
- 1.8.23. Outline the types of sleep apnea with emphasis on the obstructive type with its etiology, diagnosis, and treatment.
- 1.8.24. Discuss different types of pharyngeal suppuration with their etiology, clinical picture, and approaches for treatment.
- 1.8.25. Describe basic, applied, and surgical anatomical facts of the larynx.
- 1.8.26. Identify the most common congenital anomalies of the larynx with their clinical picture and treatment.
- 1.8.27. Recognize different traumatic disorders of the larynx and their treatment.
- 1.8.28. Differentiate between different types of laryngeal inflammations with their etiology, clinical picture, and treatment.
- 1.8.29. Discuss different laryngeal tumors with their risk factors, clinical presentations, prognosis, and treatment.

	<p>1.8.30. Outline different types of vocal cord paralysis with their etiology, clinical presentation, and treatment.</p> <p>1.8.31. Describe the indications, types, complications, and postoperative care of tracheostomy operation.</p> <p>1.8.32. Identify the main symptoms of the ear with a differential diagnosis of underlying causes.</p> <p>1.8.33. Identify the main symptoms of the nose with a differential diagnosis of underlying causes</p> <p>1.8.34. Identify the main symptoms of the pharynx with a differential diagnosis of underlying causes</p> <p>1.8.35. Identify the main symptoms of the larynx with a differential diagnosis of underlying causes</p> <p>1.8.36. Recognize principles and sequence of management of common ENT emergencies.</p>
1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	<p>1.10.1. Formulate an appropriate management plan for common ear problems</p> <p>1.10.2. Formulate an appropriate management plan for common nasal problems</p> <p>1.10.3. Formulate an appropriate management plan for common ENT problems</p> <p>1.10.4. Formulate an appropriate management plan for common laryngeal problems</p> <p>1.10.5. Formulate an appropriate management plan for common neck swellings.</p>
1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.	<p>1.11.1. Identify the basics of pure tone audiometry</p> <p>1.11.2. Identify the basics of tympanometry.</p> <p>1.11.3. Perform diagnostic nasal endoscopy</p>
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.	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p>

	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).
1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	1.15.1. Recognize principles and sequence of management of common ENT emergencies. 1.15.2. Provide first aid measures for some ENT emergencies like epistaxis

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>

III. Module Contents:

Theoretical	
Topics	Teaching Hours
Anatomy and Physiology of the ear	1
Diseases of the external ear	1
Diseases of the middle ear	1.5
Complications of otitis Media	1.5
Meniere disease, Otosclerosis, and acoustic neuroma	1.5
Facial Nerve disorders	1
Anatomy and physiology of the nose	1
Diseases of the external nose	0.5
Nasal FB	0.5
Septal diseases	0.5
Inflammatory disorders of the nose	1
Acute bacterial rhinosinusitis	1



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Chronic rhinosinusitis and complications of sinusitis 1	1
Chronic rhinosinusitis and complications of sinusitis 1	1
Allergic rhinitis	1
Nasal masses	0.5
Epistaxis	0.5
Anatomy and physiology of the pharynx	1
Nasopharyngeal diseases	1
Oropharyngeal diseases 1	1
Oropharyngeal diseases 2	1
Hypopharyngeal diseases	0.5
Obstructive sleep apnea	0.5
Pharyngeal suppurations	1
Anatomy and physiology of the larynx	1
Congenital and traumatic disorders of the larynx	1
Inflammatory disorders of the larynx	1
Laryngeal tumors	1
Vocal cord paralysis and tracheostomy	1
Topic	27
Practical	
Topic	Teaching Hours
Basic ear history taking and examination	2.5
Case 1: Auricular hematoma	
Case 2: Diffuse otitis externa	
Case 3: Furunculosis	2.5
Case 4: Ear wax	
Case 5: Traumatic perforation	
Case 6: AOM and SOM	
Case 7: Mastoiditis complicating safe CSOM	2.5
Case 8: Facial nerve palsy Complicating cholesteotoma	
Case 9: Otosclerosis	2.5
Case 10: Meniere's Disease	
Case 11: Bell's palsy	
Basic nasal history taking and examination	2.5
Case 12: Nasal dermoid	
Case 13: Congenital choanal atresia	
Case 14: Fracture nasal bone	2.5
Case 15: Nasal foreign body	
Case 16: Deviated septum and septal perforation	
Case 17: Septal hematoma and abscess	
Case 18: Rhinoscleroma	2.5
Case 19: Orbital cellulitis	



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Case 20: Frontal mucocele	
Case 21: Oroantral fistula	
Case 22: Nasal polyposis	2.5
Case 23: Antrochoanal polyp	
Case 24: Malignant Nasal mass	
Basic pharyngeal history taking and examination	2.5
Case 25: Adenoid	
Case 26: Nasopharyngeal Carcinoma	
Case 27: Acute tonsillitis	2.5
Case 28: Postonsillectomy hemorrhage	
Case 29: Unilateral tonsillar enlargement	
Case 30: Aphthous ulcer	2.5
Case 31: Ranula	
Case 32: Lingual thyroid	
Case 33: Quinsy complicated by parapharyngeal abscess	2.5
Case 34: Retropharyngeal abscess	
Case 35: Ludwig's angina	
Basic laryngeal history taking and examination	2.5
Case 36: Laryngomalacia	
Case 37: Laryngeal web	
Case 38: Acute epiglottitis	
Case 39: Acute Laryngotracheobronchitis	
Case 40: Chronic laryngitis and leukoplakia	2.5
Case 41: Vocal cord nodules and polyp	
Case 42: Unilateral RLN paralysis	
Case 43: Juvenile laryngeal papillomatosis	2.5
Case 44: Cancer larynx	
Case 45: Pharyngeal pouch	
Case 46: Foreign body oesophagus	3
Case 47: Foreign body bronchus	
Case 48: Parotid swelling	
Case 49: Submandibular swelling	
Case 50: Thyroglossal cyst	
Total	40.5

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

c) Team Based Learning

2. Clinical Teaching:

Clinical rounds: using

- Simulated patients
- 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	65	40%
Final Practical exam.	48.75	30%
Activities	48.75	30%
Total	162.5	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:

- Department book.
- Essential Books:
 - Otolaryngology and head and neck surgery (Oxford specialist handbooks in surgery), 1st edition. By: Rogan Corbridge, Andrea Thirlwall, Suresh Patel, Giles Warner, Pablo Martinez-Devesa. Oxford University Press, 2009.
 - Basic Otorhinolaryngology: A Step-by-Step Learning Guide, 2nd edition. Rudolf Probst, Gerhard Grevers, Heinrich Iro. Thieme, 2017
 - Lecture Notes: Diseases of the Ear, Nose and Throat 10th Edition. By: Peter D. Bull, Ray Clarke. Wiley-Blackwell, 2007.

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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix



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Key Competencies	Module Learning Outcomes	Teaching Methods						Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Self-directed study	Formative Assessment		Summative Assessment				
								Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
	1.1.1 to 1,1,7					X			X		X	X		X
1.2	1.2.1 to 1.2.3			X		X			X		X			X
1.4	1.4.1 to 1.4.7					X			X		X	X		X
1.5	1.5.1	X	X	X	X	X	X	X	X	X	X		X	X
1.6	1.6.1 to 1.6.5	X	X	X	X	X	X	X	X	X	X		X	
1.7	1.7.1, 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	X
1.10	1.10.1 to 1.10.5			X	X	X	X	X	X	X	X		X	X
1.11	1.11.1 to 1.11.3					X			X		X			X
1.13	1.13.1 to 1.13.7			X		X	X	X	X	X	X		X	
1.15	1.15.1, 1.15.2			X		X		X	X	X	X		X	X
2.9	2.9.1					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		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:

Name: Prof. Dr. Ahmed Ragab

Program Coordinator:

Prof. Dr. Zeinab Kasemy

Pediatrics and Plastic surgery

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Pediatrics and Plastic surgery

Code No: PEDIA/PLAST 5103

Department offering the Module: General Surgery, Maxillofacial and Plastic

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

Academic year/level: Fifth level

Semester: Semester IX

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by faculty council: 2018

Credit hours: 1.5 credit hours/ 2 weeks

	Teaching hours		
	Lectures	Practical	Activities
General Surgery	6	9	18
Plastic Surgery	3	4.5	9
Total	9	13.5	27

A-Professional Information:

I- Aim of the Module

This module aims to provide the student with essential clinical knowledge and skills to diagnose and manage common pediatric surgery and plastic diseases, and deal with common pediatric surgery and plastic emergencies

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 comprehensive history form parents of children with pediatric surgical diseases 1.1.2. Interpret the clinical presentation in main pediatric cases 1.1.3. Take comprehensive history form patients with plastic surgical problems. 1.1.4. Interpret the clinical presentation in main plastic cases
1.2 Adopt an empathic and holistic approach to the patients and their problems.	1.1.1. Demonstrate empathy in patient consultation 1.1.2. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.3. Apply the ethics of medical practice when dealing with patients and colleagues.
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 a thorough examination for children with surgical problems including examination of abdomen, genitalia and other congenital anomalies 1.4.2. Perform a thorough examination for patients with plastic problems including maxillofacial examination of abdomen, examination of the hand. 1.4.3. Interpret the clinical signs of different pediatric and plastic cases. 1.4.4. Apply the ethics of medical practice when examining patients. 1.4.5. Apply proper infection control when dealing with patients.
1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1. Apply priority setting while formulating a differential diagnosis for different pediatric and plastic cases. 1.5.2. Formulate a management plan for different pediatric and plastic disorders with priority for emergent situations.

<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>	<p>1.6.1. Select the proper investigations for different pediatric surgical cases.</p> <p>1.6.2. Order the proper investigations for different pediatric surgical cases</p> <p>1.6.3. Interpret the findings of basic investigations of pediatric surgical cases.</p> <p>1.6.4. Relate the findings of imaging of plastic cases to clinical presentation.</p>
<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Apply the rules of referral for complex or cases of uncertain diagnosis.</p> <p>1.7.2. Work in a team with other colleagues and other health care members to achieve best management strategy especially in complicated cases.</p>
<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Define surgical respiratory distress.</p> <p>1.8.2. Outline the causes and approach for management of neonatal intestinal obstruction.</p> <p>1.8.3. Describe clinical picture and management of congenital hernia and.</p> <p>1.8.4. Differentiate between pediatric solid tumors.</p> <p>1.8.5. Describe the clinical picture, and management of cryptorchidism, thyroglossal cyst and branchial cyst</p> <p>1.8.6. Outline the approach for management of pediatric abdominal wall defects</p> <p>1.8.7. Outline the classification and types of burn and its management</p> <p>1.8.8. List the types and management of malignant skin lesions.</p> <p>1.8.9. Describe hand anatomy, and management of its injury and infection</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. Construct differential diagnoses of patients with common pediatric surgery conditions.</p> <p>1.10.2. Construct differential diagnoses of patients with common plastic surgery diseases.</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1. Perform reduction of a congenital inguinoscrotal hernia</p> <p>1.11.2. Apply the ethics of medical practice when dealing with patients and colleagues.</p>

<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p>
<p>1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1. Judge the patient whether is emergent to perform procedure.</p> <p>1.15.2. Provide first aid measures foe a case of neonatal respiratory distress.</p> <p>1.15.3. Provide first aid measures for a case of maxillofacial injury.</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
<p>2.9 Adopt suitable measures for infection control.</p>	<p>2.9.1 Apply infection control measures while dealing with patients</p>

Competency Area 3: The graduate as a professional.

Key competency	Module LOs
<p>3.1 Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.</p>	<p>3.1.1 Demonstrate a professional. respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>
<p>3.4</p>	

	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 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 either 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
Abdominal wall defects	1	General Surgery
Inguinal hernia and hydrocele		
Undescended testis		
Head injury		
Hand space and infection		
Hand injuries	1	Plastic Surgery
Hand Spaces and infections	1	Plastic Surgery
Intussusception	1	General Surgery
Meckel's diverticulum		
Thyroglossal cyst		
Branchial cyst		
Hypospadias		
Malignant skin lesions	1	Plastic Surgery
Neonatal intestinal obstruction	1	General Surgery
IHPS		
intestinal atresia		
Malrotation		
Meconium ileus		
Hirschsprung		
Imperforate anus		
Neonatal respiratory distress	1	General Surgery
Congenital diaphragmatic hernia		
Trachea-esophageal fistula		
Pediatric surgery imaging	1	General Surgery
Solid paediatric tumours	1	General Surgery
Neuroblastoma		
Wilm's tumor		
Malignant skin disease		
Total	12	
Clinical		
Topic	Teaching hours	Department
Neonatal respiratory distress	1.5	General Surgery
Neonatal intestinal obstruction	3	General Surgery
Maxillofacial injury	1.5	Plastic Surgery
Burn	1.5	Plastic Surgery
Cleft palate and lip	1.5	Plastic Surgery

Pediatric surgery examination on miscellaneous topics (hernia , undescended testis ,hydrocele , hypospadias , thyroglossal cyst , branchial cyst)	3	General Surgery
Pediatric surgery revision	1.5	General Surgery
Total	13.5	

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	15	40%
Final Practical exam.	11.25	30%
Activities	11.25	30%
Total	37.5	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:

1. Module notes
2. Essential Books:

Pediatric Surgery:

- Pediatric Surgery, 2-Volume Set 7th Edition. By: Arnold G. Coran, N. Scott Adzick, Thomas M. Krummel, Jean-Martin Laberge, Robert Shamberger, Anthony Caldamone. Mosby, 2012.



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- Operative Pediatric Surgery 7th Edition. By: Mark Davenport, Lewis Spitz, Arnold Coran. CRC Press, 2013.

Plastic Surgery:

- Grabb and Smith's Plastic Surgery (GRABB'S PLASTIC SURGERY) 7th Edition. By: Charles HM Thorne, Geoffrey C. Gurtner, Kevin C Chung, Dr. Arun Gosain, Dr. Babak Mehrara, Dr. Peter Rubin, Scott L. Spear. LWW, 2013.
- Textbook of Plastic and Reconstructive Surgery. By: Deepak M. Kalaskar, Peter E. Butler, Shadi Ghali. UCL Press, 2016

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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods							Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Self-directed study	Formative Assessment		Summative Assessment				
									Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1,1,4					x	x			x		x	x		x
1.2	1.2.1 to 1.2.3			x		x	x			x		x			x
1.4	1.4.1 to 1.4.5					x	x			x		x	x		x
1.5	1.5.1, 1.5.2	x	x	x	x	x		x	x	x	x	x		x	x
1.6	1.6.1 to 1.6.4	x	x	x	x	x	x	x	x	x	x	x		x	
1.7	1.7.1, 1.7.2			x		x			x		x				
1.8	1.8.1 to 1.8.9	x	x	x	x			x	x		x		x	x	x
1.10	1.10.1, 1.10.2			x	x	x		x	x	x	x	x		x	x
1.11	1.11.1, 1.11.2					x	x			x		x			x
1.13	1.13.1 to 1.13.7			x		x		x	x	x	x	x		x	
1.15	1.15.1 to 1.15.3			x		x	x		x	x	x	x		x	x
2.9	2.9.1					x	x			x		x			x
3.1	3.1.1 to 3.1.2					x	x			x		x			x
3.4	3.4.1					x	x			x		x			x
3.8	3.8.1					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:

Name: Dr. Tarek Ahmed Hassan

Program Coordinator:

Prof. Dr. Zeinab Kasemy

Ethical and Legal Issues in Medical Practice

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Ethical and legal issues in medical practice

Code No: ETHICS 5105

Department offering the module: Forensic medicine and clinical toxicology

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

Academic year/level: Fifth level

Semester: Semester IX

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 1 credit hour

Teaching hours: 15 hours/ Lectures

B- Professional Information

I. Aim of the Module

This module aims to provide basic knowledge of the most important medical ethics, and different situations of malpractice and how to deal with..

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 Demonstrate commitment and integrity while preparing the coursework and assignments

3.2 Adhere to the professional standards and laws governing the practice, and abide by the national code of ethics issued by the Egyptian Medical Syndicate.	3.2.1 Describe basic background of medical ethics 3.2.2 Identify the laws governing the medical profession. 3.2.3 Identify ethics of scientific research. 3.2.4 Analyze common ethical dilemmas and suggest a proper solution.
3.4 Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural or ethnic backgrounds, or their disabilities.	Demonstrate respect to social, culture, and ethnic difference of patients treating them equally.
3.5 Ensure confidentiality and privacy of patients' information.	3.5.1 Explain methods to disclose patients' secrets and when to disclose them.
3.6 Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors.	3.6.1 Define various medicolegal aspects of malpractice 3.6.2 Identify medical consent. 3.6.3 Identify the patients' rights. 3.6.4 Outline the duties of the physician towards patients. 3.6.5 List the types of physician patient relationship. 3.6.6 Describe different types of consent. 3.6.7 Identify the medical responsibility. 3.6.8 Identify the ethics of organ transplantation. 3.6.9 Analyze different problems of malpractices
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 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 either 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:

Teaching hours	Topic
1	اخلاقيات مهنة الطب
1	سر المهنة
1	الاحطاء الطبيه
1	المسؤوليه الطبيه
1	الاذن الطبي
1	الضرر الطبي
1	اتعاب الاطباء
1	القوانين المنظمه لمهنة الطب
1	المسؤوليه الطبيه
1	تاديب الاطباء
1	حقوق المرضى
1	التقارير الطبيه
1	زراعته الاعضاء
1	أخلاقيات البحث العلمي
1	علاقه الاطباء بالمواد المخدره
15	المجموع

IV– Teaching and learning methods

The following teaching / learning methods are used to promote better understanding:

- **Interactive Lectures**
- **Self-directed learning**
- **Interactive lectures:** In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying topic through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.
- **Self-directed learning:** Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problemsolving

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments:

- Final-term examination: 100 % (12.5 marks)

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



Menoufia Faculty of Medicine



VI. List of references and resources:

- Course handout.

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.

<u>Module Coordinator:</u>	<u>Program Coordinator:</u>
Name: Dr. Haidy Mostafa Abouhatb	Prof. Dr. Zeinab Kasemy

Vertical Integration Module (9)

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Vertical Integration Module (9)

Department offering the course: Neuropsychiatry

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

Academic year/level: Fifth level

Semester: Semester IX

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 0.5 credit hour/ Longitudinal

Teaching Hours: 7.5 hours/ Lectures

B- Professional Information

I – Aim of the Module

To help medical students to develop a multidisciplinary approach certain cases neurological diseases with of increased ICT, malignant headache, Myasthenia Gravis, and Multiple sclerosis.

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. Describe the different items in history taking. 1.1.2. Identify the important questions to ask for the patient with headache 1.1.3. Identify the important questions to ask for the patient with dizziness 1.1.4. Identify the important questions to ask for the patient with vertigo. 1.1.5. Differentiate between lightheadness, dizziness, vertigo. 1.1.6. Differentiate between different cases of headaches associated with visual complaints.
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 breaking bad news.
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. Interpret the examination findings in patients with multiple sclerosis. 1.4.2. Interpret the examination findings in patients with increased intracranial tension. 1.4.3. Analyze different manifestations of a case with myasthenia gravis. 1.4.4. Detect patients suspected to have (Increased ICT-Headache) with respect to visual & ocular manifestations. 1.4.5. Practice risk stratification of Female

		<p>patients taking OCP presented with Headache.</p> <p>1.4.6. Recognize patients presented with ocular or bulbar manifestations (as initial presentation of Myasthenia Gravis) & direction to a neurologist.</p> <p>1.4.7. Recognize patients presented with optic neuritis (as a clinically isolated or first presentation of Multiple sclerosis).</p> <p>1.4.8. Recognize patients presenting with vestibular manifestations (vertigo & dizziness) as initial manifestations of Multiple sclerosis</p>
1.5	Prioritize issues to be addressed in a patient encounter.	1.5.1. Apply priority setting while formulating a differential diagnosis for different cases.
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	<p>1.6.1. Specify needed investigational tools helping to identify cause of (Increased ICT-Headache) (with or without visual complaints).</p> <p>1.6.2. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p> <p>1.6.3. Interpret laboratory and radiological investigations of any patient.</p>
1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<p>1.7.1. Work with other healthcare professionals in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p> <p>1.7.4. Direct patients presented with (increased ICT-Headache) associated with visual complaint to a neurologist or ophthalmologist.</p>

<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Identify clinical features of (increased Intracranial tension ICT-Headaches).</p> <p>1.8.2. Identify 2 major causes of (increased ICT-Headache) in females taking OCPs.</p> <p>1.8.3. Identify common causes of (increased ICT-Headache).</p> <p>1.8.4. Identify common causes of headaches associated with visual complaints.</p> <p>1.8.5. Recognize the importance of fundus examination in patients presented with headache of increased ICT.</p> <p>1.8.6. Recognize (Myasthenia Gravis Patients) presented with ocular or bulbar manifestations.</p> <p>1.8.7. Identify investigational tools helping to diagnose (Myasthenia Gravis Patients) presented with ocular or bulbar manifestations.</p> <p>1.8.8. Recognize Optic Neuritis as a clinical presentation of Multiple sclerosis.</p> <p>1.8.9. Recognize vestibular manifestations (Dizziness & vertigo) as a clinical presentation of Multiple sclerosis.</p> <p>1.8.10. Identify Clinical features of (Benign paroxysmal positional vertigo).</p> <p>1.8.11. Differences between peripheral & central vertigo (causes & clinical features)</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. Integrate the results of history, physical and laboratory tests into a correct diagnosis and create an individualized treatment plan.</p> <p>1.10.2. Formulate a differential diagnosis for different endocrinal causes of headache</p> <p>1.10.3. Formulate a differential diagnosis for different endocrinal causes of dizziness.</p>
<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Share patients or their caregivers in decision making regarding management plans.</p>

- 1.13.4. Gather and organize material from various sources (including library, electronic and online resources).
- 1.13.5. Formulate an approach to manage a case of vertigo & dizziness & to differentiate between central & peripheral causes of vertigo.
- 1.13.6. Formulate a management plan for a case of headache

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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 either 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:

Topic	Teaching Hours
Approach to patient with increased intracranial pressure...with ocular manifestation	1.5h
Approach to patient with Myasthenia Gravis with <u>ocular</u> & <u>bulbar</u> manifestation	1.5h
Approach to patient with Multiple sclerosis (MS) with visual symptoms	1.5h
Approach to patient with Multiple sclerosis (MS) with visual symptoms & vertigo	1 h.
Approach to patient with migraine headache with visual complaint	1 h
Approach to patient with Benign paroxysmal positional vertigo (BPPV)	1
Total	7.5



IV– Teaching and learning methods

The following teaching / learning methods are used to promote better understanding:

- **Interactive Lectures/online**
 - **Self-directed learning**
- **Interactive lectures:** In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying topic through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.
- **Self-directed learning:** Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problemsolving

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments: Final-term examination: 100 % (12.5 marks)

VI. List of references and resources:

- **Module notes.**
- **Essential Books:**

Neurology:

- CURRENT Diagnosis & Treatment Neurology, Second Edition (LANGE CURRENT Series) 2nd Edition. By: John Brust. McGraw-Hill Education / Medical, 2011.
- Merritt's Neurology Thirteenth Edition. By: Elan D. Louis, Stephan A. Mayer, Lewis P. Rowland. LWW; Thirteenth edition, 2015.

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.

Module Coordinator: Prof. Dr Ibrahim Elahmar	Program Coordinator: Prof. Dr. Zeinab Kaser
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Semester X

Orthopedics and Rheumatology Module

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Orthopedics and Rheumatology Module

Code No: ORTH/RHEM 5203

Department offering the Module : Orthopedic surgery, internal medicine, Physical Medicine and Rheumatology, and pediatrics departments

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

Credit-

Academic year/level: Fifth level

Semester: Semester X

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by faculty council: 2018

Total hours: 5 credit hours/ 4 weeks

Teaching Hours			
	Lectures	Practical	Activities
Orthopedics	15	22.5	45
Internal medicine	6	9	18
Physical Medicine and Rheumatology	6	9	18
Family Medicine	3	4.5	9
Total	30	45	90

I. Aim of the Module

This module aims to enable students to obtain an accurate, basic history from the patient and perform a rational, thorough physical examination for medical and surgical cases of orthopedics and rheumatology in adults and pediatrics.

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.	<p>1.1.1. Conduct thorough history taking for a case with an orthopedic problem.</p> <p>1.1.2. Conduct thorough history taking for a case with a rheumatologic problem.</p> <p>1.1.3. Conduct thorough history taking for a case with an autoimmune disorder.</p> <p>1.1.4. Interpret the clinical symptoms of different orthopedic, autoimmune, and rheumatologic cases.</p> <p>1.1.5. Communicate with patients regardless of their social, cultural backgrounds or their disabilities.</p> <p>1.1.6. Apply the ethics of medical practice when dealing with patients and colleagues.</p> <p>1.1.7. Perform effective eye contact, active listening, and appropriate body language.</p> <p>1.1.8. Record clinical data in a complete, accurate and retrievable manner.</p> <p>1.1.9. Present information clearly in written, electronic, and verbal forms.</p>
1.2	Adopt an empathic and holistic approach to the patients and their problems.	<p>1.2.1. Demonstrate empathy in patient counseling.</p> <p>1.2.2. Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities.</p> <p>1.2.3. Apply the ethics of medical practice when dealing with patients and colleagues.</p> <p>1.2.4. Practice patient education during an</p>

		<p>interview with the patient.</p> <p>1.2.5. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community.</p> <p>1.2.6. Identify the approach for management of difficult communication including breaking bad news.</p>
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.	<p>1.4.1. Examine peripheral joints in patients with an orthopedic problem.</p> <p>1.4.2. Examine back and lumbosacral spine</p> <p>1.4.3. Write an official medical report of orthopedic disease</p> <p>1.4.4. Examine peripheral joints in patients with rheumatoid arthritis.</p> <p>1.4.5. Write an official medical report of rheumatic disease</p> <p>1.4.6. Examine peripheral joints in patients with autoimmune diseases</p> <p>1.4.7. Perform complete chest and cardiology examination for signs of different autoimmune diseases</p> <p>1.4.8. Perform neurological examination for findings of vasculitis and autoimmune myositis.</p> <p>1.4.9. Detect Dermatological signs of different autoimmune diseases.</p> <p>1.4.10. Interpret child limping.</p> <p>1.4.11. Interpret the clinical signs of different orthopedic and rheumatologic cases.</p> <p>1.4.12. Interpret the clinical signs of different autoimmune diseases</p> <p>1.4.13. Apply the ethics of medical practice when examining patients.</p> <p>1.4.14. Apply proper infection control when dealing with patients.</p>
1.5	Prioritize issues to be addressed in a patient encounter.	<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different orthopedic, rheumatologic, and autoimmune cases.</p> <p>1.5.2. Formulate a management plan for different orthopedic, rheumatologic, and autoimmune disorders with priority for</p>

		<p>emergent situations.</p> <p>1.5.3. Prioritize problems in orthopedic diseases.</p> <p>1.5.4. Prioritize problems in autoimmune and rheumatic diseases.</p>
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	<p>1.6.1. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p> <p>1.6.2. Interpret x-ray features of different orthopedic cases.</p> <p>1.6.3. Interpret Xray features of OA, rheumatoid arthritis, and gout.</p> <p>1.6.4. Interpret Dexa scan results.</p> <p>1.6.5. Interpret synovial fluid analysis.</p> <p>1.6.6. Interpret different serology for autoimmune diseases</p>
1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<p>1.7.1. Work with other healthcare professionals in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>
1.8	Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	<p>1.8.1. Identify basics of orthopedic diseases.</p> <p>1.8.2. Describe clinical picture, investigation and outline treatment plan of compartmental syndrome.</p> <p>1.8.3. Describe clinical picture, investigation and treatment plan of open fractures.</p> <p>1.8.4. List criteria for diagnosis and treatment for septic arthritis and osteomyelitis.</p> <p>1.8.5. Recognize main pediatric orthopedic diseases.</p> <p>1.8.6. Differentiate between DDH and Perth's disease.</p> <p>1.8.7. Differentiate between osteoporosis and osteomalacia.</p> <p>1.8.8. Differentiate between osteosarcoma and</p>

giant cell tumor.

1.8.9. Define hand and foot deformities in RA

1.8.10. Enumerate differential diagnosis of benign bone tumors.

1.8.11. Describe pathogenesis and its relation to x ray finding and bone metabolism in different orthopedic diseases.

1.8.12. Identify basics of rheumatic diseases.

1.8.13. Describe epidemiology, pathogenesis, clinical picture, investigation and outline treatment plan of rheumatoid arthritis.

1.8.14. Describe epidemiology, pathogenesis, clinical picture, investigation and treatment plan of seronegative spondyloarthropathy

1.8.15. Describe epidemiology, pathogenesis, clinical picture, investigation and treatment plan of osteoarthritis.

1.8.16. Describe epidemiology, pathology, clinical picture, investigation and treatment plan of gout

1.8.17. Differentiate between inflammatory and mechanical low back pain

1.8.18. Differentiate between hand joint affection in RA and OA

1.8.19. Differentiate between gelling phenomenon and morning stiffness of RA

1.8.20. Define hand and foot deformities in RA

1.8.21. Enumerate differential diagnosis of positive rheumatoid factor

1.8.22. Describe pathogenesis and its relation to x ray finding and bone metabolism

1.8.23. Recognize main drug side effects in rheumatic diseases

1.8.24. List criteria for diagnosis and treatment for rheumatoid arthritis, seronegative spondyloarthropathy and osteoporosis

1.8.25. Identify the basics of autoimmune diseases

1.8.26. Describe extraarticular manifestations of rheumatoid arthritis and their management.

1.8.27. Describe extraarticular manifestations of spondyloarthritides

and their diagnostic criteria and management.

- 1.8.28. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of systemic lupus erythromatosus.
- 1.8.29. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of antiphospholipid syndrome.
- 1.8.30. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of scleroderma.
- 1.8.31. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of Sjogren syndrome whether primary or secondary to another autoimmune disease
- 1.8.32. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of sarcoidosis.
- 1.8.33. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of ANCA associated vasculitis
- 1.8.34. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of polyarteritis nodosa
- 1.8.35. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of giant cell arteritis and takayaso arteritis.
- 1.8.36. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of Behcet disease.
- 1.8.37. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of urticarial vasculitis.
- 1.8.38. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of mixed connective tissue disease.
- 1.8.39. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of autoimmune myositis and myositis overlap syndromes.
- 1.8.40. Describe epidemiology, pathophysiology, clinical manifestations, investigations and treatment of immunodeficiency .
- 1.8.41. Differentiate between primary and secondary immunodeficiency.

		<p>1.8.42. List types and clinical manifestations of periodic fever syndromes.</p> <p>1.8.43. Outline the diagnosis of pediatric SLE and JIA</p> <p>1.8.44. Describe the treatment measures of pediatric SLE and JI</p>
1.10	Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	<p>1.10.1. Integrate the results of history, physical and laboratory tests into a correct diagnosis and create an individualized treatment plan.</p> <p>1.10.2. Formulate a diagnostic approach for an orthopedic case.</p> <p>1.10.3. Formulate a diagnostic approach for an rheumatologic case.</p> <p>Formulate a diagnostic approach for an autoimmune case.</p>
1.11	Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.	<p>1.11.1. Demonstrate uses of different methods of fracture fixation.</p>
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.	<p>1.13.1. Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Propose a management plan for patients with an orthopedic problem based on clinical data.</p> <p>1.13.5. Formulate a management plan for rheumatologic disorders.</p> <p>1.13.6. Formulate a management plan for a case with an autoimmune disorder.</p> <p>1.13.7. Share patients or their caregivers in</p>

		<p>decision making regarding management plans.</p> <p>1.13.8. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.9. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.10. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.11. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.</p> <p>1.13.12. Evaluate risk /benefit of any intervention of orthopedic disease to tailor the management plan with minimum risk to the patient.</p>
1.15	Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	<p>1.15.1. Diagnose urgent life-threatening conditions, that need appropriate initial management.</p> <p>1.15.2. Evaluate clinical presentation of cases of orthopedic or autoimmune emergencies and construct timely management plans.</p> <p>1.15.3. Provide first aid measures for a case of fracture</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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 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 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 either 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
Extraarticular manifestations of RA	0.5	Internal Medicine
Extraarticular manifestations of SPA	0.5	Internal Medicine
SLE	0.5	Internal Medicine
Systemic sclerosis	0.5	Internal Medicine
Antiphospholipid syndrome	0.5	Internal Medicine
Dermatomyositis /polymyositis	0.5	Internal Medicine
MCTD/overlap syndrome	0.25	Internal Medicine
Vasculitis/ behcet	0.5	Internal Medicine
Periodic fever syndromes	0.5	Internal Medicine
Primary sjogren	0.25	Internal Medicine
Allergy	0.5	Internal Medicine
Adult onset stills disease	0.25	Internal Medicine
Immunodeficiency	0.5	Internal Medicine
Sarcoidosis	0.25	Internal Medicine
Articular manifestations of RA	1.5	Physical Medicine and Rheumatology
Articular manifestations of spondyloarthropathy	1.5	Physical Medicine and Rheumatology
Osteoporosis	1	Physical Medicine and Rheumatology
Osteoarthritis	1	Physical Medicine and Rheumatology
Gout	1	Physical Medicine and Rheumatology



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Pediatric SLE	1.5	Pediatrics
Pediatric RA	1.5	Pediatrics
Principles of fracture and Orthopedic diagnosis	0.5	Orthopedics
Management of polytrauma patient	1	Orthopedics
Shoulder dislocation, Fractures (Clavicle, proximal, shaft and distal humerus)	1	Orthopedics
Elbow dislocation, Forearm fractures (Monteggia, Galeazzi)	1	Orthopedics
Wrist fractures (distal radius, scaphoid)	0.5	Orthopedics
Hand fractures, flexor, extensor tendon injuries	0.5	Orthopedics
Injuries of the spine	0.5	Orthopedics
Fracture Pelvis	0.5	Orthopedics
Hip dislocation, fracture neck femur	0.5	Orthopedics
Peri-trochanteric fractures	1	Orthopedics
Fractures (Femoral shaft, tibial plateau, tibial shaft)	0.5	Orthopedics
Fractures (Ankle, Pilon, Calcaneus, Lisfranc)	0.5	Orthopedics
Shoulder diseases	1	Orthopedics
Elbow diseases	1	Orthopedics
Wrist diseases	1	Orthopedics
Knee sport injuries (Meniscus, Cruciate and Collateral ligaments)	0.5	Orthopedics
Osteonecrosis	0.5	Orthopedics
Peripheral nerve injury	0.5	Orthopedics
Infections	0.5	Orthopedics
Benign and malignant bone tumors	0.5	Orthopedics
Pediatric hip	0.5	Orthopedics

Pediatric foot	0.5	Orthopedics
Pediatric knee	0.5	Orthopedics
Total	30	
Clinical		
Topic	Teaching Hours	Department
Approach to a patient with autoimmune rheumatologic disease	1.5	Internal Medicine
Approach to a patient with immunodeficiency	1.5	Internal Medicine
Approach to a patient with allergy	1	Internal Medicine
RA case	1.5	Internal Medicine
SLE case	1.5	Internal Medicine
BD case	1	Internal Medicine
Systemic sclerosis case	1	Internal Medicine
Complications of fractures and compartmental syndrome	2	Orthopedics
Principles of internal and External fixation	2	Orthopedics
Open fractures	2	Orthopedics
Principles of internal fixation	2	Orthopedics
Principles of External fixation	2	Orthopedics
How to comment on X ray	2	Orthopedics
Upper limb Examination	4	Orthopedics
lower limb Examination	4	Orthopedics
orthopedic implants	2.5	Orthopedics
Hand and elbow examination	2	Physical Medicine and rheumatology
elbow examination	2	Physical Medicine and rheumatology

knee examination	2	Physical Medicine and rheumatology
Back , sacroiliac examination	3	Physical Medicine and rheumatology
Pediatric SLE	2	Pediatrics
Pediatric RA	2.5	Pediatrics
Total	45	

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

1. Verification of achievement for the student satisfying requirement

2. Motivation of the student to maintain or improve performance
3. Certification of performance
4. Grades

C- Summative Assessment Methods and Schedule:

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

- 10% written at the end of the module and periodicals including problem-solving, multiple-choice questions, give reason, matching, extended matching, complete and compare.
 - 10% Attendance and behaviour
 - 10% Participation in the tutorials, TBL, Research, and log book checklist

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	50	40%
Final Practical exam.	37.5	30%
Activities	37.5	30%
Total	125	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 Notes.
- Essential books:

Pediatrics:

- Nelson Textbook of Pediatrics, 20th Edition. By: Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme, Nina F Schor. W B Saunders Co Ltd, 2015.
- American Academy of Pediatrics Textbook of Pediatric Care, 2nd Edition. By: Thomas K. McInerney, Henry M. Adam, Deborah E. Campbell, Thomas G. DeWitt, Dr. Jane Meschan Foy, Dr. Deepak M. Kamat. American Academy of Pediatrics, 2016.
- Schwartz's Clinical Handbook of Pediatrics (Point (Lippincott Williams & Wilkins)) 5th Edition. By: Joseph J. Zorc, Elizabeth R. Alpern, Lawrence W. Brown, Kathleen M. Loomes, Bradley S. Marino, Cynthia J. Mollen, Leslie J. Raffini. LWW, 2012.

Internal Medicine:

- The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.
- CURRENT Medical Diagnosis and Treatment, 56th Edition. By: Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow. McGraw-Hill Education / Medical ,2017.
- Harrison's Principles of Internal Medicine 19th Edition and Harrison's Manual of Medicine 19th Edition. By: J. Larry Jameson, Anthony Fauci, Dennis Kasper, Stephen Hauser, Dan Longo, Joseph Loscalzo. McGraw-Hill Education / Medical, 2017.
- Goldman-Cecil Medicine, 25th Edition. By: Lee Goldman, Andrew I. Schafer. Elsevier; 2015.

Orthopedics:

- Textbook of Orthopedics, 5th edition. By: John Ebnezar, Jaypee Brothers Medical Publishers Pvt. Ltd. 2016.
- Textbook of Orthopaedics, Trauma and Rheumatology 2nd Edition. By: Raashid Luqmani, James Robb, Daniel Porter, Benjamin Joseph. Mosby Ltd., 2013.

Rheumatology:

- Kelley and Firestein's Textbook of Rheumatology, 10th Edition. By: Gary S. Firestein, Ralph C. Budd, Sherine E Gabriel, Iain B McInnes, James R. O'Dell. Elsevier, 2016.
- Oxford Textbook of Rheumatology, 4th Edition. By: Richard A Watts, Philip Conaghan, Chris Denton, Helen Foster, John Issacs, Ulf Muller-Ladner, Richard A. Watts, Philip G. Conaghan, Christopher Denton, John Isaacs, Ulf Müller-Ladner. OUP Oxford, 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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods							Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Self-directed study	Formative Assessment		Summative Assessment				
									Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.9					x	x			x		x	x		X
1.2	1.2.1 to 1.2.6			x		x	x			x		x			X
1.4	1.4.1 to 1.4.14					x	x			x		x	x		X
1.5	1.5.1 to	x	x	x	x	x		x	x	x	x	x		x	X

	1.5.4															
1.6	1.6.1 to 1.6.6	x	x	x	x	x	x	x	x	x	x	x	x		x	
1.7	1.7.1, 1.7.3			x		x			x			x				
1.8	1.8.1 to 1.8.44	x	x	x	x			x	x		x		x	x	x	X
1.10	1.10.1 to 1.10.3			x	x	x		x	x	x	x	x		x	x	
1.11	1.11.1					x	x			x		x				x
1.13	1.13.1 to 1.13.12			x		x		x	x	x	x	x		x		
1.15	1.15.1 to 1.15.3			x		x	x		x	x	x	x		x	x	
2.9	2.9.1					x	x			x		x				x
3.1	3.1.1 to 3.1.2					x	x			x		x				x
3.4	3.4.1					x	x			x		x				x
3.8	3.8.1					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	x
6.3	6.3.1							x	x	x	x	x	x	x	x	x
6.6	6.6.1, 6.6.2							x	x	x	x	x	x	x	x	x

Module Coordinator:

Name: Dr. Rash Yosry Saleh

Program Coordinator:

Prof. Dr. Zeinab Kasemy

Forensic Medicine and Clinical Toxicology

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Forensic Medicine and Clinical Toxicology

Code No: FORE/TOX 5204

Department offering the Module: Forensic Medicine and Clinical Toxicology department

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

Academic year/level: Fifth level

Semester: Semester X

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 6 credit hours / 5 weeks

Teaching hours			
	Lectures	Practical	Activities
Forensic Medicine and Clinical Toxicology department	36	54	108

B- Professional Information

I. Aim of the Module:

To provide the students with basic background and skills regarding different forensic aspects of living and dead individuals including body remains, and diagnosis and management of intoxicated patients.

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 thorough history taking for a case with a medicolegal problem. 1.1.2 Interpret the clinical symptoms of different vascular cases. 1.1.3 Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.4 Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.5 Perform effective eye contact, active listening, and appropriate body language. 1.1.6 Record clinical data in a complete, accurate and retrievable manner. 1.1.7 Present information clearly in written, electronic, and verbal forms. 1.1.8 Report the medicolegal data in written, oral or electronic forms.
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 breaking bad news.

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.	<p>1.4.1 Identify living and dead individuals and body remains.</p> <p>1.4.2 Diagnose death by different clinical and investigatory methods.</p> <p>1.4.3 Determine time of death through assessment of postmortem changes.</p> <p>1.4.4 Identify different causes of death and manner of death as well.</p> <p>1.4.5 Examine different wounds and injuries and write a proper primary wound report</p> <p>1.4.6 Perform a proper general examination for a toxicological case.</p> <p>1.4.7 Detect alarming signs for different case of intoxication.</p> <p>1.4.8 Apply the ethics of medical practice when examining patients.</p> <p>1.4.9 Apply proper infection control when dealing with patients.</p>
1.5	Prioritize issues to be addressed in a patient encounter.	<p>1.5.1 Apply priority setting while formulating a differential diagnosis for a medicolegal case.</p> <p>1.5.2 Prioritize problems while managing a case of poisoning.</p>
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	<p>1.6.1 Follow the guidelines in choosing the proper investigations for a medicolegal case</p> <p>1.6.2 Select the proper investigations fo a case of poisoning.</p> <p>1.6.3 Interpret the laboratory results for different cases of poisoning.</p> <p>1.6.4 Interpret the findings of imaging for medicolegal cases</p>
1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<p>1.7.1 Work with other healthcare professionals in management of undiagnosed cases.</p> <p>1.7.2 Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3 Communicate effectively through feedback to help evaluate his own and others work.</p>
1.8		<p>1.8.1 Describe different medicolegal (ML) aspects of living and dead individuals regarding personal</p>

	Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	<p>identification, diagnosis of death, causes, manner of death, and postmortem changes,</p> <p>1.8.2 Differentiate between types of wounds.</p> <p>1.8.3 Describe ML aspects of different cases of sexual offences.</p> <p>1.8.4 Define maternal morbidity and mortality from ML point of view.</p> <p>1.8.5 List different classes of common toxic substances and environmental pollutants</p> <p>1.8.6 Describe the circumstances of intoxication, toxic dosed, toxicokinetic, clinical picture, differential diagnosis of different drugs and toxic substances.</p> <p>1.8.7 Describe initial appropriate first aid treatment and antidotal measures for different drugs and toxic substances.</p>
1.10	Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.	<p>1.10.1 Integrate the results of history, physical and laboratory tests into a correct diagnosis</p> <p>1.10.2 Formulate a differential diagnosis for a case of poisoning.</p> <p>1.10.3 Formulate a differential etiology for a case of death.</p> <p>1.10.4 Analyze case scenario of clinical forensic medicine and recognize their medicolegal aspects.</p> <p>1.10.5 Analyze case scenario of intoxicated patient and formulate treatment plan.</p>
1.11	Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.	<p>1.11,1 Demonstrate practice of gastric lavage for a case of oral poisoning.</p>
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.	<p>1.13.1 Retrieve information and be able to use the recent evidence-based information and communications technologies</p> <p>1.13.2 Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.3 Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4 Design a management plan appropriate for a case of poisoning.</p> <p>1.13.5 Share patients or their caregivers in decision making regarding management plans.</p>

	<p>1.13.6 Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.7 Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.8 Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.9 Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.</p> <p>1.13.10 Evaluate risk /benefit of any intervention to tailor the management plan with minimum risk to the patient.</p>
<p>1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1 Provide first aid measures for a case of poisoning, especially organophosphorus poisoning.</p>



Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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.	<p>6.2.1 Formulate a learning plan for the module in focus</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>

III. Module Contents:

Theoretical		
Topic	Total	Subspeciality
Identification	2.5	Forensic Medicine
Death	2.5	Forensic Medicine
Asphyxia	2.5	Forensic Medicine
Wounds	2.5	Forensic Medicine
Head injury	2	Forensic Medicine
Firearm	2	Forensic Medicine
Physical injury	1	Forensic Medicine
Infanticide	1	Forensic Medicine
Regional	1	Forensic Medicine
Sexual offences	1	Forensic Medicine
Child and elderly abuse	0.5	Forensic Medicine
General	3	Clinical Toxicology
Corrosives	1	Clinical Toxicology
Heavy metals	2	Clinical Toxicology
Insecticides	0.5	Clinical Toxicology
Rodenticide	1	Clinical Toxicology
Alcohols	1.5	Clinical Toxicology
Hydrocarbons	1	Clinical Toxicology
Opioids	1	Clinical Toxicology



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CO, Co2	1	Clinical Toxicology
CNS depressant	1	Clinical Toxicology
Animal bite	1	Clinical Toxicology
Food poisoning	0.5	Clinical Toxicology
Addiction	0.5	Clinical Toxicology
hallucinogens	1	Clinical Toxicology
Cocaine		
Non - addicting drugs	0.5	Clinical Toxicology
Analgesics	1	Clinical Toxicology
Illicit drugs + amphetamine	0.5	Clinical Toxicology
Total	36 h	
Practical		
Topic	Teaching hours	Subspeciality
Identification(age)	3	Forensic Medicine
General wounds	1.5	Forensic Medicine
General wounds	1.5	Forensic Medicine
Firearm injuries	1.5	Forensic Medicine
Firearm injuries	1.5	Forensic Medicine
Sexual offences	1.5	Forensic Medicine
Head injuries	1.5	Forensic Medicine
Head injuries	1.5	Forensic Medicine
Asphyxia	1.5	Forensic Medicine
Asphyxia	1.5	Forensic Medicine
Death &postmortem changes	1.5	Forensic Medicine
Death &postmortem changes	1.5	Forensic Medicine
Physical injuries	3	Forensic Medicine
Pregnancy	1.5	Forensic Medicine
Regional injury	1.5	Forensic Medicine
Pregnancy, delivery and abortion	1.5	Forensic Medicine
RTA	1.5	Forensic Medicine
Genetic markers	1.5	Forensic Medicine
Preliminary tests for blood identification	1.5	Clinical Toxicology
Spectroscope & Blood group	1.5	Clinical Toxicology
Toxic & seeds	1.5	Clinical Toxicology
Projectiles (smooth)	1.5	Clinical Toxicology
Projectiles (Rifled)	1.5	Clinical Toxicology
Toxicological sheet & diagnosis	3	Clinical Toxicology
First aid	3	Clinical Toxicology



Decontamination	1.5	Clinical Toxicology
Colour tests	1.5	Clinical Toxicology
Hair & fibers	1.5	Clinical Toxicology
Reinsch Test	1.5	Clinical Toxicology
Semen	1.5	Clinical Toxicology
Common Poisons	1.5	Clinical Toxicology
Common Poisons	1.5	Clinical Toxicology
Total	54	

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

c) Team Based Learning

2. Clinical Teaching:

Clinical rounds: using

- Simulated patients
- 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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



C- Summative Assessment Methods and Schedule:

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		20% 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, give a reason, matching, extended matching, complete and compare.	At the end of the semester

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	60	40%
Final Practical exam.	45	30%
Activities	45	30%
Total	150	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:

- Department Book
- Essential Books:

Forensic Medicine:



Menoufia Faculty of Medicine
Accredited



- Forensic Medicine: Fundamentals and Perspectives Softcover reprint of the original 1st ed. 2014 Edition. By: Reinhard B. Dettmeyer, Marcel A. Verhoff, Harald F. Schütz. Springer, 2016.
- Forensic Medicine: Fundamentals and Perspectives 2014th Edition. By: Reinhard B. Dettmeyer, Marcel A. Verhoff, Harald F. Schütz. Springer, 2013.

Clinical Toxicology:

- Clinical Toxicology: Principles and Mechanisms, Second Edition 2nd Edition. By: Frank A. Barile. CRC Press 2010.
- Casarett & Doull's Essentials of Toxicology, 3rd Edition. By: Curtis Klaassen, John Watkins. McGraw Hill / Medical, 2015.

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- Hospital wards, outpatient clinics, and operative theatres



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Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods						Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Self-directed study	Formative Assessment		Summative Assessment				
								Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1,1.8					X			X		X	X		X
1.2	1.2.1 to 1.2.5			X		X			X		X			X
1.4	1.4.1 to 1.4.9					X			X		X	X		X
1.5	1.5.1, 1.5.2	X	X	X	X	X	X	X	X	X	X		X	X
1.6	1.6.1 to 1.6.4	X	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 1.8.7	X	X	X	X		X	X		X		X	X	X
1.10	1.10.1 to 1.10.5			X	X	X	X	X	X	X	X		X	X
1.11	1.11.1					X			X		X			X
1.13	1.13.1 to 1.13.10			X		X	X	X	X	X	X		X	
1.15	1.15.1			X		X		X	X	X	X		X	X
2.9	2.9.1					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		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:

Name: Dr. Haidy Mostafa Abouhatb

Program Coordinator:

Prof. Dr. Zeinab Kasemy

Emergency and critical care Module

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Emergency and critical care Module

Code No: EMERG 5201

Department offering the Module : General surgery, Internal medicine, Pediatric & Neonatology, Plastic surgery, Critical care and Family medicine departments

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

Academic year/level: Fifth level

Semester: Semester X

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date Of Approval by Faculty Council: 2018

Total hours: 7 credit hours/ 6 weeks

	Teaching hours		
	Lectures	Practical	Activities
General surgery	9	13.5	27
Internal medicine	9	13.5	27
Paediatrics & Neonatology	12	18	36
Critical care	6	9	18
Family medicine	3	4.5	9
Plastic surgery	3	4.5	9
Total	42	63	126

B-Professional information

I- Aim of the Module:

To provide the students with essential and up-to-date theoretical knowledge and clinical skills regarding emergency medicine and management of critically ill patients from the perspectives of general surgery, internal medicine, critical care medicine, pediatrics and family medicine.

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 thorough history taking for an emergency case. 1.1.2. Conduct thorough history taking for a critical care case. 1.1.3. Interpret the clinical symptoms of different emergency and critical care cases. 1.1.4. Communicate with patients regardless of their social, cultural backgrounds or their disabilities. 1.1.5. Apply the ethics of medical practice when dealing with patients and colleagues. 1.1.6. Perform effective eye contact, active listening, and appropriate body language. 1.1.7. Record clinical data in a complete, accurate and retrievable manner. 1.1.8. Present information clearly in written, electronic, and verbal forms. 1.1.9. Practice fulfilling data of family health record 1.1.10. Report alarming signs in transfer critical patients.
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. Practice patient education during an interview with the patient.



		<p>1.2.5. Show a professional image in manner, dress, speech and interpersonal relationships that is consistent with the medical professions accepted contemporary standards in the community.</p> <p>1.2.6. Identify the approach for management of difficult communication including breaking bad news.</p>
<p>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.</p>		<p>1.4.1. Perform a proper general and local examination for an emergency patient.</p> <p>1.4.2. Measure vital data for the patient.</p> <p>1.4.3. Interpret cervical spine injury using Canadian scoring.</p> <p>1.4.5. Analyze different physical findings in a newborn infant to differentiate between benign and pathological findings.</p> <p>1.4.6. Interpret persistence and absence of primitive neonatal reflexes beyond a given time frame.</p> <p>1.4.7. Interpret the findings in the Apgar score and the factors affecting them.</p> <p>1.4.8. Interpret Clinical sepsis score.</p> <p>1.4.9. Analyze different conditions of CPR unresponsiveness.</p> <p>1.4.10. Identify different types of fluids and important medications in ICU and emergency setting.</p> <p>1.4.11. Interpret the clinical signs of different emergency and critical care cases.</p> <p>1.4.12. Apply the ethics of medical practice when examining patients.</p> <p>1.4.13. Apply proper infection control when dealing with patients.</p>
<p>1.5 Prioritize issues to be addressed in a patient encounter.</p>		<p>1.5.1. Apply priority setting while formulating a differential diagnosis for different emergency and critical care cases.</p> <p>1.5.2. Formulate a management plan for different emergency and critical care cases.</p> <p>1.5.3. Prioritize problems in an emergency setting.</p> <p>1.5.4. Prioritize problems in a critical care setting.</p>
<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>		<p>1.6.1. Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.</p> <p>1.6.2. Select the most needed investigations for a case of coma.</p> <p>1.6.3. Interpret different ABGs with the most common findings in ED.</p> <p>1.6.4. Interpret different ECGs in ED.</p>

	<p>1.6.5. Interpret different basic X-rays in Emergency department</p> <p>1.6.6. Interpret investigations of different types of neonatal hyperbilirubinemia.</p> <p>1.6.7. Select investigations for a hemorrhagic disease of newborns.</p> <p>1.6.8. Report different investigations of hemolytic disease of newborns.</p> <p>1.6.9. Interpret investigations for different types of neonatal seizures.</p> <p>1.6.7. Interpret investigations of neonatal necrotizing enterocolitis.</p> <p>1.6.8. Interpret investigations for neonatal hypoglycemia.</p>
<p>1.7 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.</p>	<p>1.7.1. Work with other healthcare professionals in management of undiagnosed cases.</p> <p>1.7.2. Apply the rules of consultation for urgent and undiagnosed cases.</p> <p>1.7.3. Communicate effectively through feedback to help evaluate his own and others work.</p>
<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1. Identify patients at risk using the ABCDE approach.</p> <p>1.8.2. Determine the general principles of basic and advanced airway management and list the causes of airway obstruction.</p> <p>1.8.3. Outline the definition, pathophysiology, classification, clinical manifestations and general principles for the management of shock.</p> <p>1.8.4. List the causes of cardiorespiratory arrest in adults and recognize the ALS algorithm.</p> <p>1.8.5. Define Mass casualty and recognize the stages of triaging in ED.</p> <p>1.8.6. Identify the correct sequence of priority in assessing multiple trauma patients by outlining the primary and secondary surveys.</p> <p>1.8.7. Identify and Explain the approach to the management of multiple trauma patients.</p> <p>1.8.8. Describe the assessment protocol for a patient with chest pain in ED.</p> <p>1.8.9. Discuss the different surgical causes and pathogenesis of acute abdomen.</p> <p>1.8.10. Determine the management and differentiate different causes of DCL.</p> <p>1.8.11. List causes of acute liver cell failure.</p> <p>1.8.12. Describe the clinical picture of acute liver cell failure.</p>

- 1.8.13. Outline the management of acute liver cell failure.
- 1.8.14. Define anaphylaxis.
- 1.8.15. Describe the clinical presentation of anaphylaxis.
- 1.8.16. How to manage a case with anaphylaxis.
- 1.8.17. Enumerate medical causes of acute abdominal pain.
- 1.8.18. Differentiate types of acute abdominal pain.
- 1.8.19. Outline the management of acute abdominal pain.
- 1.8.20. List causes of GIT bleeding.
- 1.8.21. Describe the clinical picture of GIT bleeding.
- 1.8.22. Outline the management of GIT bleeding.
- 1.8.23. Describe transient benign neonatal findings and physical examination of a normal newborn.
- 1.8.24. Recognize different developmental reflexes in the neonatal age group.
- 1.8.25. Determine the accurate gestational age of a neonate.
- 1.8.26. Identify the aetiology, pathogenesis and sequelae of perinatal asphyxia
- 1.8.27. Identify pathophysiology, clinical stages, complications and of hypoxic-ischemic encephalopathy.
- 1.8.28. Determine definition, causes, physiological handicaps, complications and prevention of prematurity in neonates.
- 1.8.29. Explain different causes and sequelae of small for Gestational age newborns.
- 1.8.30. Describe different types, predisposing factors, and clinical pictures of birth injuries that may occur in newborn infants.
- 1.8.31. Define jaundice in newborns.
- 1.8.32. Describe the physiology of bilirubin metabolism.
- 1.8.33. Identify different causes, clinical pictures and complications of neonatal hyperbilirubinemia either physiological or pathological.
- 1.8.34. Outline the definition, predisposing factors, clinical manifestations of kernicterus in newborn infants, and how to prevent kernicterus in newborn infants.
- 1.8.35. Identify normal newborns and routine care in the delivery room.
- 1.8.36. Outline neonatal resuscitation algorithm.

- 1.8.37. Identify the amount and frequency of feeding of the newborn.
- 1.8.38. Identify different types, causes and clinical manifestations of neonatal anaemia.
- 1.8.39. Identify role of family physician in newborn care.
- 1.8.40. Identify types, pathogenesis, clinical manifestations, complications and treatment of hemolytic disease in newborns.
- 1.8.41. Describe hydrops fetalis and its different causes
- 1.8.42. Outline the IMCI case management process steps.
- 1.8.43. Identify the causes and clinical manifestations of neonatal seizures.
- 1.8.44. Explain the origins of neonatal infections.
- 1.8.45. Define neonatal sepsis and its causative organisms.
- 1.8.46. Determine risk factors, Path-physiology and different clinical patterns of neonatal sepsis.
- 1.8.47. Describe the clinical picture of neonatal septicemia.
- 1.8.48. Define hyaline membrane disease of the newborn.
- 1.8.49. Outline aetiology, pathophysiology, pathology, risk factors and clinical picture of hyaline membrane disease of the newborn.
- 1.8.50. Outline complications and treatment of hyaline membrane disease of the newborn.
- 1.8.51. Describe the cause and treatment of transient tachypnea in newborns.
- 1.8.52. Outline mechanism and treatment of meconium aspiration syndrome.
- 1.8.53. Identify Pathogenesis, different causes and types of neonatal apnea.
- 1.8.54. Describe the treatment of neonatal apnea.
- 1.8.55. Identify the state of child health today and factor of poor health.
- 1.8.56. Explain the Pathophysiology, pathology, and clinical manifestations of Infants of diabetic mothers.
- 1.8.57. Outline different causes of neonatal hypoglycemia.
- 1.8.58. Describe clinical manifestations of neonatal hypoglycemia.
- 1.8.59. Define cardiopulmonary arrest condition in paediatrics and its diagnosis.

	<p>1.8.60. Identify how to deal with a case of sudden arrest.</p> <p>1.8.61. Describe when to stop resuscitation efforts.</p> <p>1.8.62. Define a case of respiratory failure and its characters.</p> <p>1.8.63. Recognize different precipitating factors of respiratory failure in the pediatric age group.</p> <p>1.8.64. Determine the definition and causes of shock in paediatrics.</p> <p>1.8.65. Explain different causes and sequelae of multi-organ system failure.</p> <p>1.8.66. Describe different classifications of shock in paediatrics.</p> <p>1.8.67. Define coma and its clinical grades.</p> <p>1.8.68. Identify types, causes and clinical manifestations of coma.</p> <p>1.8.69. Describe the Glasgow coma scale and its different causes.</p> <p>1.8.70. Describe a normal newborn and its physiology.</p> <p>1.8.71. Recognize critical patients.</p> <p>1.8.72. Describe the monitoring of the critical patient.</p> <p>1.8.73. Identify different types of fluid.</p> <p>1.8.74. Recognize patients in need of resuscitation.</p> <p>1.8.75. Outline indications of resuscitation.</p> <p>1.8.76. Define ARDS.</p> <p>1.8.77. Describe the management of ARDS.</p> <p>1.8.78. Describe different types of O2 devices</p> <p>1.8.79. Define shock.</p> <p>1.8.80. Identify different types of shock.</p> <p>1.8.81. Explain the management of shock.</p> <p>1.8.82. Describe the definition of sepsis.</p> <p>1.8.83. Outline causes of sepsis.</p> <p>1.8.84. Define the management of sepsis and septic shock.</p> <p>1.8.85. Explain different causes of disturbed conscious level.</p> <p>1.8.86. Outline the most important causes of DCL in the ICU.</p> <p>1.8.87. Describe different management plans for each cause of DCL.</p> <p>1.8.88. Differentiate between biliary atresia and neonatal hepatitis.</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. Integrate the results of history, physical and laboratory tests into a correct diagnosis and create an individualized treatment plan.</p> <p>1.10.2. Analyze differential diagnosis of neonatal anemia.</p>



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	<p>1.10.3. Analyze differential diagnosis of hemolytic disease of the newborn.</p> <p>1.10.4. Analyze differential diagnoses of neonatal seizures. Integrate information from history, examination, and investigations to reach an appropriate diagnosis of congenital TORCH infections.</p> <p>1.10.5. Design a differential diagnosis for respiratory distress in newborns.</p> <p>1.10.6. Analyze differential diagnosis of upper airway obstruction in a newborn infant.</p> <p>1.10.7. Analyze differential diagnosis of neonatal necrotizing enterocolitis.</p> <p>1.10.8. Formulate a differential diagnosis for causes of cardiopulmonary arrest.</p> <p>1.10.9. Analyze different scenarios in patients with multiple traumas.</p> <p>1.10.10. Analyze clinical neonatal problems to reach a diagnosis and a differential diagnosis of perinatal asphyxia.</p> <p>1.10.11. Integrate information from history, examination, and investigations to reach an appropriate diagnosis of neonatal septicemia.</p> <p>1.10.12. Analyze different types of respiratory failure and compare clinical and laboratory levels.</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1. Apply techniques of airway management: open airway, definitive airway management.</p> <p>1.11.2. Apply clinical skills of basic life support.</p> <p>1.11.3. Apply the ALS algorithm in different scenarios.</p> <p>1.11.4. Apply steps of routine care of a normal newborn</p> <p>1.11.5. Apply a plan for feeding the newborn.</p> <p>1.11.6. Apply the transport of critical patients.</p> <p>1.11.7. Apply cervical neck collar.</p>
<p>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.</p>	<p>1.13.1. Retrieve information and be able to use the recent evidence based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up-to-date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p>

- 1.13.4. Formulate a management plan appropriate for hypoxic-ischemic encephalopathy in a neonate.
- 1.13.5. Formulate a proper management plan for neonatal birth injuries.
- 1.13.6. Formulate a management plan for different scenarios of neonatal condition during resuscitation.
- 1.13.7. Design a proper management plan for neonatal anemia.
- 1.13.8. Design a proper management plan for neonatal seizures.
- 1.13.9. Design a proper management plan for prematurity in neonates.
- 1.13.10. Design a proper management plan for neonatal sepsis.
- 1.13.11. Design a proper management plan for neonatal necrotizing enterocolitis.
- 1.13.12. Design a proper management plan for the Infant of a diabetic mother.
- 1.13.13. Formulate a management plan for neonatal hypoglycemia.
- 1.13.14. Design a management plan for the two types of respiratory failure.
- 1.13.15. Design a proper management plan for shock in different situations.
- 1.13.16. Design a proper management plan for coma in pediatrics.
- 1.13.17. Share patients or their caregivers in decision making regarding management plans.
- 1.13.18. Gather and organize material from various sources (including library, electronic and online resources).
- 1.13.19. Apply the principles of using international guidelines and multidisciplinary team MDT.
- 1.13.20. Apply basics of scientific research (collection, analysis and interpretation of data).
- 1.13.21. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.
- 1.13.22. Evaluate risk /benefit of any intervention to tailor the management plan with minimum risk to the patient.



1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.	1.15.1. Interpret different algorithms with the ABCDE approach 1.15.2. Interpret multiorgan system dysfunction disorders and therapeutic modalities. 1.15.3. Analyze critically ill patients. 1.15.4. Analyze causes of endocrine emergencies. 1.15.5. Identify degrees of burn 1.15.6. Outline burn triage. 1.15.7. Outline burn resuscitation.
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Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
2.9 Adopt suitable measures for infection control.	2.9.1 Apply infection control measures while 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.	3.1.1 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 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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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.	<p>6.6.1 Manage time and learning resources effectively.</p> <p>6.6.2 Apply priority setting in the learning process</p>



III. Module Contents:

Theoretical		
Topic	Teaching Hours	Department
Assessment and monitoring of the critically ill patient.	1	Critical care
Fluid therapy and resuscitation of critical patients.	1	Critical care
ARDS and O2 devices in ICU.	1	Critical care
Circulatory failure in ICU.	1	Critical care
Sepsis and septic shock.	1	Critical care
DCL in ICU.	1	Critical care
Care of newborn	1.5	Family Medicine
IMCI	1.5	Family Medicine
ABCD approach	1	General surgery
Airway Management	1	General surgery
Shock	1	General surgery
Advanced life support (ALS) Algorithm	1	General surgery
Mass casualty and Triage	1	General surgery
Approach a patient with multiple trauma (Chest trauma - Abdominal & Pelvic trauma – head & spine trauma- musculoskeletal trauma)	1	General surgery
Approach to a patient with Acute chest pain	1	General surgery
Approach to a patient with Acute abdomen	1	General surgery
Approach to a patient with Depressed consciousness and coma	1	General surgery
Anaphylaxis	2	Internal medicine
Abdominal Pain	2	Internal medicine
Acute liver cell failure	2	Internal medicine
Upper GIT Bleeding	3	Internal medicine
Hemolytic disease of newborn and neonatal jaundice	1	Pediatrics and neonatology
Prematurity	1	Pediatrics and neonatology
Neonatal sepsis	1	Pediatrics and neonatology
Hypoxic ischemic encephalopathy	0.5	Pediatrics and neonatology
Birth injuries	0.5	Pediatrics and neonatology
Neonatal respiratory diseases	1.5	Pediatrics and neonatology
Hypoglycemia and IDM	1	Pediatrics and neonatology
Neonatal seizures	0.5	Pediatrics and neonatology
Transient neonatal findings	0.5	Pediatrics and neonatology
Shock in pediatrics	1	Pediatrics and neonatology
CPR in pediatrics	1	Pediatrics and neonatology
Coma in pediatrics	0.5	Pediatrics and neonatology
Respiratory failure and poisoning in pediatrics	2	Pediatrics and neonatology
Burn Management	3	Plastic surgery
Total	42	
Clinical		



Topic	Teaching Hours	Department
Fluid therapy and resuscitation of critical patients.	3	Critical care
Medications in ICU	3	Critical care
ARDS and O2 devices in ICU.	3	Critical care
Care of newborn	2.5	Family Medicine
IMCI	2	Family Medicine
ABCD approach	3	General surgery
Airway Management	3	General surgery
Shock	1.5	General surgery
Advanced life support (ALS) Algorithm	3	General surgery
Approach a patient with multiple trauma (Chest trauma - Abdominal & Pelvic trauma – head & spine trauma- musculoskeletal trauma)	3	General surgery
Anaphylaxis	3	Internal medicine
Acute liver cell failure	3.5	Internal medicine
Abdominal Pain	3.5	Internal medicine
Upper GIT Bleeding	3.5	Internal medicine
Fetal circulation and routine care of normal newborn	2	Pediatrics and neonatology
Birth injuries	0.5	Pediatrics and neonatology
Pediatric CPR and Shock	3	Pediatrics and neonatology
Apgar score and Meconium aspiration \$	1.5	Pediatrics and neonatology
CPR in pediatrics	2.5	Pediatrics and neonatology
Transient neonatal findings	0.5	Pediatrics and neonatology
Shock in pediatrics	1.5	Pediatrics and neonatology
Positive pressure ventilation in Newborn	2	Pediatrics and neonatology
Cardiac compression in neonates	1	Pediatrics and neonatology
Neonatal spots	2	Pediatrics and neonatology
Neonatal intubation	1.5	Pediatrics and neonatology
Burn Management	2	Plastic surgery
Burn Management	2.5	Plastic Surgery
Total	63	

IV– Teaching and Learning Methods:

1. Theoretical Teaching:

a) Interactive lectures: using

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

b) Case Based learning

c) Team Based Learning



2. Clinical Teaching:

a) Clinical rounds: using

- Simulated patients
- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

c) Skill lab

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule::

Assessment Method	Percentage	Description	Timing
Regular Evaluation	30%	10% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		10% Attendance and behavior 10% Participation in the tutorials, TBL, Research, and log book checklist	During the module
Final practical exam	30%	OSCE Exam	At the end of the module



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

Method of Assessment	Marks	Percentage
Final Written exam.	70	40%
Final Practical exam.	52.5	30%
Activities	52.5	30%
Total	175	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 Notes**
- **Essential Books:**

General Surgery:

- The Washington Manual of Surgery (Lippincott Manual Series), 7th Edition. By: Mary E. Klingensmith LWW;, 2016
- Surgery: A Case Based Clinical Review 1st Edition. By: Christian De Virgilio, Areg Grigorian, Paul N. Frank. Springer Nature, 2015.
- Current Diagnosis and Treatment Surgery 14th edition. By: Gerard Doherty. McGraw Hill / Medical, 2015.
- Essentials of General Surgery 5th Edition. By: Lawrence, Peter F., Bell, Richard M. Dayton, Merrill T., Hebert, James C., Mohammed I. Ahmed. Lippincott Williams & Wilkins, 2012.

Pediatrics:

- Nelson Textbook of Pediatrics, 20th Edition. By: Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme, Nina F Schor. W B Saunders Co Ltd, 2015.



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- American Academy of Pediatrics Textbook of Pediatric Care, 2nd Edition. By: Thomas K. McInerny, Henry M. Adam, Deborah E. Campbell, Thomas G. DeWitt, Dr. Jane Meschan Foy, Dr. Deepak M. Kamat. American Academy of Pediatrics, 2016.
- Schwartz's Clinical Handbook of Pediatrics (Point (Lippincott Williams & Wilkins)) 5th Edition. By: Joseph J. Zorc, Elizabeth R. Alpern, Lawrence W. Brown, Kathleen M. Loomes, Bradley S. Marino, Cynthia J. Mollen, Leslie J. Raffini. LWW, 2012.

Internal Medicine:

- The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.
- CURRENT Medical Diagnosis and Treatment, 56th Edition. By: Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow. McGraw-Hill Education / Medical, 2017.
- Harrison's Principles of Internal Medicine 19th Edition and Harrison's Manual of Medicine 19th Edition. By: J. Larry Jameson, Anthony Fauci, Dennis Kasper, Stephen Hauser, Dan Longo, Joseph Loscalzo. McGraw-Hill Education / Medical, 2017.
- Goldman-Cecil Medicine, 25th Edition. By: Lee Goldman, Andrew I. Schafer. Elsevier; 2015.

Family Medicine:

- Oxford Textbook of Primary Medical Care. By: Roger Jones. Oxford University Press, 2004.
- Textbook of Family Medicine 9th Edition. By: Rakel, Robert E. Saunders; 2015.
- Swanson's Family Medicine Review 8th Edition. By: Alfred F. Tallia, Joseph E. Scherger, Nancy W. Dickey. Elsevier, 2016.
- CURRENT Diagnosis & Treatment in Family Medicine, 4th Edition 4th Edition. By: Jeannette South-Paul, Samuel Matheny, Evelyn Lewis. McGraw Hill / Medical, 2015.

Plastic:

- Grabb and Smith's Plastic Surgery (GRABB'S PLASTIC SURGERY) 7th Edition. By: Charles HM Thorne, Geoffrey C. Gurtner, Kevin C Chung, Dr. Arun Gosain, Dr. Babak Mehrara, Dr. Peter Rubin, Scott L. Spear. LWW, 2013.
- Textbook of Plastic and Reconstructive Surgery. By: Deepak M. Kalaskar, Peter E. Butler, Shadi Ghali. UCL Press, 2016.

Critical care:

- Irwin and Rippe's Intensive Care Medicine 8th Edition. By: Richard S. Irwin, Craig M. Lilly, Paul H. Mayo, James M. Rippe. LWW, 2017.
- Marino's The ICU Book International Edition Fourth, International Edition. By: Paul L. Marino. LWW, 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. Skill lab and patient simulators
5. Clinical round teaching rooms.
6. Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods								Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Skill Lab	Self-directed study	Formative Assessment		Summative Assessment				
										Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.10					X	X				X		X	X		X
1.2	1.2.1 to 1.2.6			X		X	X				X		X			X
1.4	1.4.1 to 1.4.13					X	X	X			X		X	X		X
1.5	1.5.1 to 1.5.4	X	X	X	X	X			X	X	X	X	X		X	X
1.6	1.6.1 to 1.6.8	X	X	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 1.8.88	X	X	X	X				X	X		X		X	X	X
1.10	1.10.1 to 1.10.12			X	X	X			X	X	X	X	X		X	X
1.11	1.11.1 to 1.11.7					X	X	X			X		X			X
1.13	1.13.1 to 1.13.22			X		X			X	X	X	X	X		X	
1.15	1.15.1 to 1.15.7			X		X	X			X	X	X	X		X	X
2.9	2.9.1					X	X				X		X			X
3.1	3.1.1 to 3.1.2					X	X				X		X			X
3.4	3.4.1					X	X				X		X			X
3.8	3.8.1					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

Name: Dr Amany Elbanna

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

Vascular Surgery

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Vascular Surgery

Code No: VAS 5202

Department offering the Module : General Surgery

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

Academic year/level: Fifth level

Semester: Semester X

Date of specification: 2018.

Date of approval by Departmental Council: 2018

Date of approval by faculty council: 2018

Total hours: 1 credit hours.

Teaching hours			
	Lectures	Practical	Activities
General surgery	6	9	18

A-Administrative information

I. Aim of the Module

To provide the student with the knowledge, and skills which enable him/her to identify, analyze, manage and/or refer common and/ or important vascular surgical diseases and emergencies to provide efficient, cost effective and human patient care with emphasis



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.	<p>1.1.1 Conduct thorough history taking for a case with vascular disorder.</p> <p>1.1.2 Interpret the clinical symptoms of different vascular cases.</p> <p>1.1.3 Communicate with patients regardless of their social, cultural backgrounds or their disabilities.</p> <p>1.1.4 Apply the ethics of medical practice when dealing with patients and colleagues.</p> <p>1.1.5 Perform effective eye contact, active listening, and appropriate body language.</p> <p>1.1.6 Record clinical data in a complete, accurate and retrievable manner.</p> <p>1.1.7 Present information clearly in written, electronic, and verbal forms.</p>
1.2 Adopt an empathic and holistic approach to the patients and their problems.	<p>1.2.1 Demonstrate empathy in patient counseling.</p> <p>1.2.2 Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities.</p> <p>1.2.3 Apply the ethics of medical practice when dealing with patients and colleagues.</p> <p>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.</p> <p>1.2.5 Identify the approach for management of difficult communication including breaking bad news.</p>



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.	<ul style="list-style-type: none">1.4.1 Conduct local examination of the peripheral arterial system.1.4.2 Conduct local examination of the peripheral venous system.1.4.3 Perform a proper general examination for a vascular case.1.4.4 Palpate and detect pulsations of different arteries.1.4.5 Detect the signs of ischemia.1.4.6 Detect the signs of venous thrombosis.1.4.7 Interpret the clinical signs of different vascular cases.1.4.8 Apply the ethics of medical practice when examining patients.1.4.9 Apply proper infection control when dealing with patients.
1.5	Prioritize issues to be addressed in a patient encounter.	<ul style="list-style-type: none">1.5.1 Apply priority setting while formulating a differential diagnosis for different vascular cases.1.5.2 Formulate a management plan for different vascular cases.1.5.3 Prioritize problems while dealing with vascular cases.
1.6	Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	<ul style="list-style-type: none">1.6.1 Follow the guidelines in choosing the proper investigations while taking into consideration cost-effectiveness.1.6.2 Interpret ultrasound findings in a vascular case.1.6.3 Interpret the findings of different angiography techniques.
1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<ul style="list-style-type: none">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.	<ul style="list-style-type: none">1.8.1 Outline different causes for acute ischemia.1.8.2 Describe the pathology, and clinical picture of acute ischemia.

	<p>1.8.3 Identify different treatment options for acute ischemia and their indications.</p> <p>1.8.4 Outline different causes for chronic ischemia.</p> <p>1.8.5 Describe the pathology, and clinical picture of chronic ischemia.</p> <p>1.8.6 Identify different treatment options for acute ischemia and their indications.</p> <p>1.8.7 Describe the etiopathogenesis, clinical presentation, and treatment of aneurysm</p> <p>1.8.8 Outline different causes for varicose veins</p> <p>1.8.9 Describe the pathology, and clinical picture of varicose veins.</p> <p>1.8.10 Identify different treatment options for varicose veins and their indications.</p> <p>1.8.11 Outline different types and causes for venous thrombosis.</p> <p>1.8.12 Describe the pathology, and clinical picture of venous thrombosis.</p> <p>1.8.13 Identify different treatment options for venous thrombosis and their indications.</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1 Integrate the results of history, physical and laboratory tests into a correct diagnosis and create an individualized treatment plan.</p> <p>1.10.2 Formulate a differential diagnosis for a case of acute ischemia.</p> <p>1.10.3 Formulate a differential diagnosis for a case of chronic ischemia.</p> <p>1.10.4 Formulate a differential diagnosis of a case of venous thrombosis.</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1 Apply measures to manage a case of deep venous thrombosis.</p>
<p>1.13 1. 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.</p>	<p>1.13.1 Apply continuous medical education and research to keep up to date with the international advancement in medicine and surgery.</p> <p>1.13.2 Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.3 Design a management plan appropriate for a case of acute ischemia.</p> <p>1.13.4 Formulate a proper management plan for a case of chronic ischemia.</p>



	<p>1.13.5 Formulate a management plan for a case of venous thrombosis.</p> <p>1.13.6 Design a management plan for a case of vascular aneurysm.</p> <p>1.13.7 Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.8 Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.9 Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.10 Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.11 Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients.</p> <p>1.13.12 Evaluate risk /benefit of any intervention to tailor the management plan with minimum risk to the patient.</p>
<p>1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.</p>	<p>1.15.1 Detect the alarming signs of acute ischemia.</p> <p>1.15.2 Detect the alarming signs for deep venous thrombosis.</p> <p>1.15.3 Apply the first aid measures for a case of deep venous thrombosis.</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
<p>2.9 Adopt suitable measures for infection control.</p>	<p>2.9.1 Apply infection control measures while dealing with patients</p>

Competency Area 3: The graduate as a professional.

Key competency	Module LOs
<p>3.1 Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty,</p>	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p>



	integrity, commitment, compassion, and respect.	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 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 either 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
Acute Ischemia	2
Chronic ischemia and aneurysms.	2
Venous disorders.	2
Total	6
Clinical	
Topic	Teaching Hours
Chronic Ischemia	2
Varicose veins	2
Leg ulcer,	2
Vascular Tools and Imaging.	3
Total	9

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

c) Team Based Learning

2. Clinical Teaching:

a) Clinical rounds: using

- Web based video and Multimedia applications
- Problem solving

b) Bedside clinical teaching

3. Self-directed Learning

V- Student Assessment:

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

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
Final Written exam.	10	40%
Final Practical exam.	7.5	30%
Activities	7.5	30%
Total	25	100%



E- Grading for by GPA System:

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

VI. List of references and resources:

- **Course handout.**
- **Essential Books:**
 - Rutherford's Vascular Surgery, 2-Volume Set, 9th edition. By: Anton N Sidawy, Bruce A Perler. Elsevier; 9th edition, 2018
 - Vascular and Endovascular Surgery: A Comprehensive Review Expert Consult. By: Wesley S. Moore. Saunders, 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- Skill lab and patient simulators
- 5- Clinical round teaching rooms.
- 6- Hospital wards., outpatient clinics, and operative theatres

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods							Assessment Methods						
		Recorded Lecture	Inverted Lectures	Case Based Learning	Team based Learning	Clinical Rounds	Bed Side Clinical Teaching	Self-directed study	Formative Assessment		Summative Assessment				
									Theoretical	Clinical	Written	OSCE	Assignments	quizzes	participation
1.1	1.1.1 to 1.1.7					X	X			X		X	X		X
1.2	1.2.1 to 1.2.5			X		X	X			X		X			X
1.4	1.4.1 to 1.4.9					X	X			X		X	X		X
1.5	1.5.1 to 1.5.3	X	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	X		X	
1.7	1.7.1 to 1.7.3			X		X			X		X				
1.8	1.8.1 to 1.8.13	X	X	X	X			X	X		X		X	X	X
1.10	1.10.1 to 1.10.4			X	X	X		X	X	X	X	X		X	X
1.11	1.11.1					X	X			X		X			X
1.13	1.13.1 to 1.13.12			X		X		X	X	X	X	X		X	
1.15	1.15.1 to 1.15.3			X		X	X		X	X	X	X		X	X
2.9	2.9.1					X	X			X		X			X
3.1	3.1.1 to 3.1.2					X	X			X		X			X
3.4	3.4.1					X	X			X		X			X
3.8	3.8.1					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

Name: Dr Ehab Saied Abdel Azeem

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy



Vertical Integration Module (10)

University: Menoufia

Faculty: Medicine

A-Administrative information

Module Title: Vertical Integration Module (10)

Department offering the Module: Internal Medicine

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

Academic year/level: Fifth level

Semester: Semester X

Date of specification: 2018

Date of approval by departments council: 2018

Date of approval by faculty council: 2018

Credit hours: 0.5 credit hour

Teaching Hours: 7.5 hours/ Lectures

B- Professional Information

I. Aim of the Module:

To provide the students with clinical knowledge and skills to develop a multidisciplinary approach certain cases neurological diseases with of increased ICT, malignant headache, Myasthenia Gravis, and Multiple sclerosis, .



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 Describe the different items in history taking. 1.1.2 Identify the important questions to ask for the patient with vasculitis. 1.1.3 Identify the important questions to ask for the patient with arthritis. 1.1.4 Interpret the symptoms of cases of vasculitis and arthritis
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
1.4 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 Interpret the clinical presentation of different types of vasculitis 1.4.2 Analyze different manifestations of a case with arthritis.
1.5 Prioritize issues to be addressed in a patient encounter.	1.5.1 Apply priority setting while formulating a differential diagnosis for different cases.
1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.	1.6.1 Follow the guidelines in choosing the proper investigations for cases of vasculitis and arthritis while taking into consideration cost-effectiveness. 1.6.2 Interpret laboratory and radiological investigations of any patient.
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.



<p>1.8 Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.</p>	<p>1.8.1 Describe the different causes of joint pain. 1.8.2 List different types of arthritis 1.8.3 Differentiate between causes of arthritis 1.8.4 Outline management of arthritis according to the cause 1.8.5 Describe investigations needed for proper diagnosis of arthritis 1.8.6 List causes of vasculitis 1.8.7 Differentiate between different types of vasculitis 1.8.8 Differentiate between vasculitis and its mimics</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1 Integrate the results of history, physical and laboratory tests into a correct diagnosis and create an individualized treatment plan. 1.10.2 Formulate a differential diagnosis for different endocrinal causes of arthritis 1.10.3 Formulate a differential diagnosis for different endocrinal causes of vasculitis.</p>
<p>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.</p>	<p>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 Share patients or their caregivers in decision making regarding management plans. 1.13.4 Gather and organize material from various sources (including library, electronic and online resources). 1.13.5 Formulate an approach to manage a case of arthritis. 1.13.6 Formulate a management plan for a case of vascular affection</p>

Competency Area 2: The graduate as a health promoter.

Key Competency	Module LOs
<p>2.9 Adopt suitable measures for infection control.</p>	<p>2.9.1 Apply infection control measures while dealing with patients</p>



Mansoura Faculty of Medicine
Accredited



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 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 either 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:

Topic	Teaching Hours
Approach to a patient with arthritis	4
Approach to a patient with vasculitis	3.5
Total	7.5

IV– Teaching and learning methods

The following teaching / learning methods are used to promote better understanding:

- **Interactive Lectures/online**
- **Self-directed learning**
- **Interactive lectures:** In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying topic through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.
- **Self-directed learning:** Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

V- Student Assessment:

A. Attendance criteria:

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

B- Assessment methods

- Formative assessment: Through predesigned checklist and assignment with assessment of student participation in the lecture
- Summative Written: MCQ, EMQs, complete, true false and problemsolving

C- Assessment schedule

Final examination: Final-term assessment at the end of the semester by written examination.

D- Weighting of assessments:



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- Final-term examination: 100 % (12.5 marks)

VI. List of references and resources:

- Module notes.
- Essential Books:

Internal Medicine:

- The Washington Manual of General Internal Medicine Consult, 3rd Edition. By: Thomas Ciesielski. LWW, 2017.
- CURRENT Medical Diagnosis and Treatment, 56th Edition. By: Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow. McGraw-Hill Education / Medical, 2017.
- Harrison's Principles of Internal Medicine 19th Edition and Harrison's Manual of Medicine 19th Edition. By: J. Larry Jameson, Anthony Fauci, Dennis Kasper, Stephen Hauser, Dan Longo, Joseph Loscalzo. McGraw-Hill Education / Medical, 2017.
- Goldman-Cecil Medicine, 25th Edition. By: Lee Goldman, Andrew I. Schafer. Elsevier; 2015.

Rheumatology:

- Kelley and Firestein's Textbook of Rheumatology, 10th Edition. By: Gary S. Firestein, Ralph C. Budd, Sherine E Gabriel, Iain B McInnes, James R. O'Dell. Elsevier, 2016.
- Oxford Textbook of Rheumatology, 4th Edition. By: Richard A Watts, Philip Conaghan, Chris Denton, Helen Foster, John Isaacs, Ulf Muller-Ladner, Richard A. Watts, Philip G. Conaghan, Christopher Denton, John Isaacs, Ulf Müller-Ladner. OUP Oxford, 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.

Module Coordinator:

Name: Dr. Enas Zahran

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

توصيف برنامج بكالوريوس الطب و الجراحة العام (البرنامج المتميز) ساعات معتمدة)

عميد الكلية	منسق البرنامج	لجنة المعايير الاكاديمية
أ.د/ محمد فهمي النعماني	أ.د/ زينب عبدالعزيز قاسمي	ا.م . د/ أحمد حمدان

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



**The Private
Program**

M.B.B.CH. PROGRAM CREDIT POINTS

(5 + 2)

PROGRAM SPECIFICATION FOR THE PRIVATE PROGRAM

عميد الكلية
أ.د/ محمد فهمي النعماني

منسق البرنامج
أ.د زينب عبدالعزيز
قاسمي

لجنة المعايير الأكاديمية و
التوصيف بالبرنامج
د. أحمد حمدان

University: Menoufia

Faculty: Medicine

A-Basic information

- Program Title:** Bachelor degree of Medicine and Surgery- Credit Points –(5+2).
- Program Type:** Single
- Department (s):** 32 departments (Integrated system)

N.	Department	N.	Department
1	Human anatomy & Embryology	17	Tropical medicine
2	Histology and cell biology	18	Chest
3	Medical Physiology	19	General Surgery
4	Medical Biochemistry and Molecular Biology	20	Cardio-thoracic Surgery
5	Pathology	21	Obstetrics&& Gynaecology
6	Clinical Pharmacology	22	Orthopedic Surgery
7	Medical Microbiology & Immunology	23	Urology
8	Medical Parasitology	24	Neuro-surgery
9	Ophthalmology	25	Anesthesia & Surgical Intensive care
10	Otorhinolaryngology	26	Diagnostic Radiology
11	Forensic medicine & Clinical Toxicology	27	Clinical Oncology & Nuclear Medicine
12	Public health and community medicine	28	Cardiology and Angiology
13	Internal medicine	29	Clinical Pathology
14	Pediatric Medicine	30	Family medicine
15	Neurology & Psychiatry	31	Plastic surgery
16	Dermatology, Andrology &STDS	32	Physical medicine, rheumatology and rehabilitation

- Coordinator:** Prof. Dr. Zeinab Kasemy
- External Evaluator(s):** Prof. Dr. Mona Ghaly
- Date of Program specification approval:** 10 -2023.

B-Professional information

1- Program Aims:

The program aims to provide graduate physicians who can:

- a- Provide primary health care as family physician/general practitioner, with emphasis on disease prevention and health promotion.
- b- Achieve the clinical and practical standards through a patient-centered care required to compete in the national labor market.
- c- Adhere to professionalism and adopt the ethics of medical practice and respect the religious, cultural and humanity values.
- d- Collaborate with other health care professionals, appreciating their role, respecting the hierarchy of the health care system with acquisition of the skills of professionalism and leadership.
- e- Continue self-learning and research to cope with the advancement in the medical field.
- f- Employ the clinical practice for the service and improvement of the community.

II- Academic Standards:

The National Academic Reference Standards (NARS) for medicine approved by the National Authority for Quality Assurance and Accreditation of Education (2017) is used as the academic reference standards

The aims and Learning outcomes of the current program are comparable with the attributes of medical graduate (Annex 1) and competency areas provided by the national academic reference standards.

Competency areas & Key competencies of NARS 2017

Competency Area I: The graduate as a health care provider:

The graduate should provide quality, safe, patient-centered care, drawing upon his/her integrated knowledge and clinical skills, and adhering to professional values. The graduate should collect and interpret information, make clinical decisions, and carry out diagnostic and therapeutic interventions - with an understanding of the limits of his/her expertise- considering the patient's circumstances and preferences as well as the availability of resources. The graduate should be able to:

- 1.1. Take and record a structured, patient centered history.
- 1.2. Adopt an empathic and holistic approach to the patients and their problems.
- 1.3. Assess the mental state of the patient.
- 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.
- 1.5. Prioritize issues to be addressed in a patient encounter.
- 1.6. Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.

- 1.7. Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.
- 1.8. Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.
- 1.9. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).
- 1.10. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.
- 1.11. Perform diagnostic and intervention procedures² in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.
- 1.12. Adopt strategies and apply measures that promote patient safety.
- 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.
- 1.14. Respect patients' rights and involve them and /or their families/carers in management decisions.
- 1.15. Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.
- 1.16. Apply the appropriate pharmacological and nonpharmacological approaches to alleviate pain and provide palliative care for seriously ill people, aiming to relieve their suffering and improve their quality of life.
- 1.17. Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification

Competency Area II: The graduate as a health promoter

The graduate should advocate for the development of community and individual measures which promote the state of well-being, he/she should empower individuals and communities to engage in healthy behaviors and put his/her knowledge and skills to prevent diseases, reduce deaths and promote quality lifestyle. The graduate should be able to:

- 2.1 Identify the basic determinants of health and principles of health improvement.
- 2.2 Recognize the economic, psychological, social, and cultural factors that interfere with wellbeing.
- 2.3 Discuss the role of nutrition and physical activity in health.
- 2.4 Identify the major health risks in his/her community, including demographic, occupational and environmental risks, endemic diseases, and prevalent chronic diseases.
- 2.5 Describe the principles of disease prevention, and empower communities, specific groups or individuals by raising their awareness and building their capacity.
- 2.6 Recognize the epidemiology of common diseases within his/her community and apply the systematic approaches useful in reducing the incidence and prevalence of those diseases.

- 2.7 Provide care for specific groups including pregnant women, newborns and infants, adolescents and the elderly.
- 2.8 Identify vulnerable individuals that may be suffering from abuse or neglect and take the proper actions to safeguard their welfare.
- 2.9 Adopt suitable measures for infection control.

Competency Area III: The graduate as a professional

The graduate should adhere to the professional and ethical codes, standards of practice, and laws governing practice. The graduate should be able to:

- 3.1. Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.
- 3.2. Adhere to the professional standards and laws governing the practice and abide by the national code of ethics issued by the Egyptian Medical Syndicate.
- 3.3. Respect the different cultural beliefs and values in the community they serve.
- 3.4. Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural, ethnic backgrounds, or their disabilities.
- 3.5. Ensure confidentiality and privacy of patients' information.
- 3.6. Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors.
- 3.7. Recognize and manage conflicts of interest.
- 3.8. Refer patients to appropriate health facility at the appropriate stage.
- 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.

Competency Area IV: The graduate as a scholar and scientist: the graduate should build his clinical practice on a base of knowledge of scientific principles and methods of basic medical and social sciences, applying this knowledge into clinical care, and using it as a foundation for clinical reasoning, care provision, further professional development and research. The graduate should be able to:

- 4.1 Describe the normal structure of the body and its major organ systems and explain their functions.
- 4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.
- 4.3 Recognize and describe main developmental changes in humans and the effect of growth, development and aging on the individual and his family.
- 4.4 Explain normal human behavior and apply theoretical frameworks of psychology to interpret the varied responses of individuals, groups and societies to disease.

- 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).
- 4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.
- 4.7 Describe drug actions: therapeutics and pharmacokinetics; sideeffects and interactions, including multiple treatments, long term conditions and non-prescribed medication; and effects on the population.
- 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.

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

The graduate should work and collaborate effectively with physicians and other colleagues in the health care professions, demonstrating an awareness of and a respect for their roles in delivering safe, effective patient- and population-centered care. He/she should be committed to his/her role as a part of health caresystem, respecting its hierarchy and rules and using his/her administrative and leadership skills to add value to the system. Thegraduate should be able to:

- 5.1 Recognize the important role played by other health careprofessions in patients' management.
- 5.2 Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and sharedresponsibilities and engaging in shared decision-making for effective patient management.
- 5.3 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.
- 5.4 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.
- 5.5 Communicate effectively using a written health record,electronic medical record, or other digital technology.
- 5.6 Evaluate his/her work and that of others using constructivefeedback.
- 5.7 Recognize own personal and professional limits and seek helpfrom colleagues and supervisors when necessary.
- 5.8 Apply fundamental knowledge of health economics to ensurethe efficiency and effectiveness of the health care system.
- 5.9 Use health informatics to improve the quality of patient care.
- 5.10 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.
- 5.11 Improve the health service provision by applying a process ofcontinuous quality improvement.
- 5.12 Demonstrate accountability to patients, society, and the profession.

Competency Area VI: The graduate as a lifelong learner and researcher

The graduate should demonstrate a lifelong commitment to excellence in practice through continuous learning and professional development. He should reflect on his own performance, and plan for his own development making use of all possible learning resources. The graduate should have an inquisitive mind and adopt sound scientific research methodology to deal with practice uncertainty and knowledge gaps and to contribute to the development of his profession as well as for the purpose of his own academic development. The graduate should be able to:

- 6.1 Regularly reflect on and assess his/her performance using various performance indicators and information sources.
- 6.2 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice
- 6.3 Identify opportunities and use various resources for learning.
- 6.4 Engage in inter-professional activities and collaborative learning to continuously improve personal practice and contribute to collective improvements in practice.
- 6.5 Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that address them.
- 6.6 Effectively manage learning time and resources and set priorities.
- 6.7 Demonstrate an understanding of the scientific principles of research including its ethical aspects and scholarly inquiry and contribute to the work of a research study.
- 6.8 Critically appraise research studies and scientific papers in terms of integrity, reliability, and applicability.
- 6.9 Analyze and use numerical data including the use of basic statistical methods.
- 6.10 Summarize and present to professional and lay audiences the findings of relevant research and scholarly inquiry.

III- Program Learning Outcomes (PLOs)

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

Key competency	PLOs
1.1 Take and record a structured, patient-centered history.	<p>1.1.1 List history-taking items.</p> <p>1.1.2 Define Efficient prioritized history taking.</p> <p>1.1.3 Describes the different components of history taking.</p> <p>1.1.4 Describe the secondary resources for patient encounters.</p> <p>1.1.5 Demonstrate customized efficient prioritized history-taking.</p> <p>1.1.6. Obtain data from secondary resources.</p> <p>1.1.7. Demonstrate respect to the patient's rights during history taking.</p> <p>1.1.8. Apply the legal and ethical standards during history taking.</p>
1.2 Adopt an empathic and holistic approach to the patients and their problems.	<p>1.2.1 Define empathic and holistic approaches in patient care.</p> <p>1.2.2 Describe the patient's behavior during illness.</p> <p>1.2.3 Describe a patient's illness experience in the patient's own words according to the corresponding system.</p> <p>1.2.4 Demonstrate empathy in patient consultation.</p> <p>1.2.5 Demonstrate respect towards patient's emotions about illness.</p>
1.3 Assess the mental state of the patient.	<p>1.3.1 Describe mental state assessment pillars.</p> <p>1.3.2 Conduct a mental state assessment that is appropriately targeted to the patient's complaints and medical conditions</p> <p>1.3.3 Demonstrate respect and support toward mentally disordered patients.</p>
1.4 Perform an appropriately timed full physical examination of patients, appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive.	<p>1.4.1 List physical examination components</p> <p>1.4.2 Describe the disease finding (clinical manifestations) for the organ in the corresponding system.</p> <p>1.4.3 Categorize different abnormalities of the organ in the corresponding system and their role in disease pathogenesis.</p>

	<p>1.4.4 Conduct general clinical examination concentrating on the systemic signs for the organ in the corresponding system-</p> <p>1.4.5 Perform local examination for the organ in the corresponding system-</p> <p>1.4.6 Generate differential diagnosis for acute presentations for the organ in the corresponding system- based on the examination findings.</p> <p>1.4.7 Demonstrate respect to the patient's rights during clinical examination.</p> <p>1.4.8 Apply the legal and ethical standards during clinical examination.</p> <p>1.4.9 Show professionalism while dealing with the patient.</p>
<p>1.5 Prioritize issues to be addressed in a patient encounter.</p>	<p>1.5.1. Recognize situations with a need for urgent or emergent medical care, including life-threatening conditions.</p> <p>1.5.2. Recognize when to seek additional guidance.</p> <p>1.5.3. Demonstrates knowledge of care coordination.</p> <p>1.5.4. Describe the psychosocial factors related to the situation.</p> <p>1.5.5. Discuss the effect of the psychosocial factors on management plans.</p> <p>1.5.6. Develop a prioritized differential diagnosis for a patient's condition.</p> <p>1.5.7. Modify a differential diagnosis depending on emergent situations.</p> <p>1.5.8. Coordinates care of patients in routine clinical situations effectively utilizing the roles of the interprofessional team member</p> <p>1.5.9. Counsel the patients and caregivers by incorporating the psychological element.</p> <p>1.5.10. Demonstrate respect to the psychosocial factors affecting the patient and his clinical condition</p>
<p>1.6 Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.</p>	<p>1.6.1. List the appropriate diagnostic investigations for common diseases of the system/organ</p> <p>1.6.2. Describe the basic interpretation of common diagnostic testing.</p> <p>1.6.3. Select the proper diagnostic test for the patient complaint taking into consideration the effectiveness factor.</p>

		1.6.4. Interpret the findings of different diagnostic tests for a specific disease
		1.6.5. Demonstrate respect to the patient's socioeconomic standard during investigation selection.
1.7	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.	<p>1.7.1 Define uncertainty, complexity, and ambiguity</p> <p>1.7.2 Identify the uncertainty, ambiguity, and complexity in different patient encounters.</p> <p>1.7.3 List the different causes of uncertainty and ambiguity in patient diagnosis.</p> <p>1.7.4 Outline the approach for dealing with uncertainty, ambiguity, and complexity.</p> <p>1.7.5 Provide a thorough differential diagnosis of a patient with an undifferentiated illness.</p> <p>1.7.6 Schedule a patient with a chronic illness for a return visit to continue the work-up Level.</p> <p>1.7.7 Demonstrate respect towards the opinions of other colleagues and senior staff regarding the assessment of patients with uncertain diagnoses.</p> <p>1.7.8 Show empathy toward a patient with uncertainty, ambiguity, or complexity in clinical diagnosis.</p>
1.8	Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.	<p>1.8.1 Define clinical and biomedical sciences.</p> <p>1.8.2 Describe the different aspects of the clinical sciences relevant to the problem related to the current.</p> <p>1.8.3 Outline the different parameters of biomedical sciences relevant to the clinical situation related to the current.</p> <p>1.8.4 Integrate the clinical and biomedical knowledge to reach a provisional diagnosis for the patient's problem.</p> <p>1.8.5 Show cooperation with other health team members in patient management.</p> <p>1.8.6 Demonstrate respect to the teamwork in a healthcare setting.</p>
1.9	Retrieve, analyze, and evaluate relevant and current data from the literature, using information technologies and library resources, to help solve a clinical problem based on evidence (EBM).	<p>1.9.1 Define evidence-based medicine.</p> <p>1.9.2 Identify different sources of evidence.</p> <p>1.9.3 List the steps for evidence appraisal.</p> <p>1.9.4 Identify evidence-based guidelines related to the patient's problem.</p> <p>1.9.5 Discuss potential evidence-based treatment options in respect to patient preference.</p>

	<p>1.9.6 Formulate a patient problem-directed search question.</p> <p>1.9.7 Locate the trustable sources of data and information needed for the clinical work.</p> <p>1.9.8 Appraise different types of evidence.</p> <p>1.9.9 Apply the best available evidence, integrated with patient preference, to the care of patients.</p> <p>1.9.10 Demonstrate respect to the copyrights of different data sources.</p> <p>1.9.11 Show accuracy and honesty during the collection and presentation of data.</p>
<p>1.10 Integrate the results of history, physical examination and laboratory test findings into a meaningful diagnostic formulation.</p>	<p>1.10.1. List the different steps for a diagnostic approach.</p> <p>1.10.2. Identify the proper order for the diagnostic steps including history, examination, and investigations.</p> <p>1.10.3. Follow the proper order for the diagnostic steps in relation to the patient encounter.</p> <p>1.10.4. Integrate the findings of history, clinical examination, and investigations to reach an accurate diagnosis concerning the patient complaint in the corresponding system.</p> <p>1.10.5. Interpret all the available data in the diagnostic process without disregard for minor or irrelevant findings</p>
<p>1.11 Perform diagnostic and intervention procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.</p>	<p>1.11.1. Describe the different standard steps of diagnostic maneuvers for the clinical problem related to the current system.</p> <p>1.11.2. Identify the different intervention protocols for the clinical problem related to the current system.</p> <p>1.11.3. Recognize the principles of patient safety and infection controls during the relevant diagnostic and intervention maneuvers.</p> <p>1.11.4. Perform the basic diagnostic maneuvers relevant to the clinical problem of the current system.</p> <p>1.11.5. Apply the standards of patient safety and infection control during dealing with patients in different clinical situations.</p> <p>1.11.6. Apply critical thinking skills to deal with unexpected clinical findings and challenging situations.</p> <p>1.11.7. Seek the opinions of seniors and other colleagues in unexpected critical situations.</p>

	<p>1.11.8. Appraise his/her skills during diagnostic and intervention maneuvers concerning patient benefit and safety.</p> <p>1.11.9. demonstrate respect to the opinions of seniors and other colleagues in emergent critical situations.</p>
1.12 Adopt strategies and apply measures that promote patient safety.	<p>1.12.1. List patient misidentification or medication errors as common patient safety events.</p> <p>1.12.2. Identify medical errors to improve patient safety in all practice settings.</p> <p>1.12.3. Describes how to report errors in a clinical setting.</p> <p>1.12.4. Participate in effective and safe hand-offs and transitions of care.</p> <p>1.12.5. Demonstrate respect to the rules of patient safety in clinical practice</p>
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.	<p>1.13.1. Describe the evidence-based guidelines for the management of clinical problems relevant to the current system.</p> <p>1.13.2. Collaborate with other colleagues in decision making</p> <p>1.13.3. Apply a patient-centered approach in patient or caregiver counseling.</p> <p>1.13.4. Demonstrate respect to the patient or his caregivers' rights in decision-making.</p> <p>1.13.5. Demonstrate respect to the opinions of other colleagues in decision-making</p>
1.14 Respect patients' rights and involve them and /or their families/carers in management decisions.	<p>1.14.1 Identify the rights of the patients or their caregivers regarding decision-making in different clinical situations.</p> <p>1.14.2 Describe the ethical dilemma.</p> <p>1.14.3 Document and report clinical information truthfully in a confidential way.</p> <p>1.14.4 Formulate a management plan taking into consideration the patient's rights.</p> <p>1.14.5 Treat patients with dignity, civility, and respect, regardless of race, culture, gender, ethnicity, age, or socioeconomic status</p>
1.15 Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support	<p>1.15.1. Describe the approaches for the management of common emergencies related to the current system</p> <p>1.15.2. Define the steps of cardio-pulmonary resuscitation and basic life support.</p>

measures, and basic first aid procedures.	<p>1.15.3. Identify the main first aid measures related to the emergencies of the current.</p> <p>1.15.4. Perform cardiopulmonary resuscitation and basic life support.</p> <p>1.15.5. Apply main first aid measures.</p> <p>1.15.6. Set priorities in dealing with clinical emergencies.</p> <p>1.15.7. Demonstrate respect to the contextual factors of emergencies and first aid procedures.</p>
<p>1.16 Apply the appropriate pharmacological and nonpharmacological approaches to alleviate pain and provide palliative care for seriously ill people, aiming to relieve their suffering and improve their quality of life.</p>	<p>1.16.1 Define palliative care.</p> <p>1.16.2 Identify the basic pharmacological lines for pain management.</p> <p>1.16.3 Describe the non-pharmacological approaches for pain management</p> <p>1.16.4 List the indications and methods for palliative measures for seriously ill patients.</p> <p>1.16.5 Formulate a management plan for chronic pain.</p> <p>1.16.6 Design a protocol for palliative care for seriously ill patients.</p> <p>1.16.7 Show empathy in dealing with seriously ill patients</p>
<p>1.17 Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification.</p>	<p>1.17.1 Define end-of-life care.</p> <p>1.17.2 Describe different patient – centered approaches for management of end-of-life situations.</p> <p>1.17.3 Recognize the regulations of death declaration.</p> <p>1.17.4 Identify the legal issues regarding death certification.</p> <p>1.17.5 Practice writing of death certifications</p> <p>1.17.6 Demonstrate respect to the feelings of the patient's family while reporting end of life state and death situation.</p>

Competency Area 2: The graduate as a health promoter.

Competency	PLOs
<p>2.1 Identify the basic determinants of health and principles of health improvement.</p>	<p>2.1.1. Define the basic health determinants.</p> <p>2.1.2. Describe the principles of health improvement.</p> <p>2.1.3. Utilize basic health determinants according to the system complaint in relation to the system.</p>

	2.1.4. Show continuous motivation for health improvement.
2.2 Recognize the economic, psychological, social, and cultural factors that interfere with wellbeing.	<p>2.2.1. List the socioeconomic factors that affect health.</p> <p>2.2.2. Identify the psychological factors involved in health maintenance.</p> <p>2.2.3. Describe the effect of cultural variation on individual well-being.</p> <p>2.2.4. Analyze the factors affecting the health status of an individual.</p> <p>2.2.5. Demonstrate respect to the socioeconomic, psychological, and cultural variation among different individuals in clinical practice.</p>
2.3 Discuss the role of nutrition and physical activity in health.	<p>2.3.1. Define the essential nutritional needs in relation to the life cycle stage.</p> <p>2.3.2. Identify the physical activity requirements in relation to the life cycle stage.</p> <p>2.3.3. Describe the effect of nutritional status on an individual's well-being.</p> <p>2.3.4. Describe the effect of different types of physical activity on health status.</p> <p>2.3.5. Calculate the nutritional requirements according to the life cycle stage.</p> <p>2.3.6. Provide advice regarding physical activity to individuals of different life cycle stages to improve their well-being.</p> <p>2.3.7. Demonstrate respect to the role of nutrition and physical activity in well-being.</p> <p>2.3.8. Apply effective communication skills in counselling.</p>
2.4 Identify the major health risks in his/her community, including demographic, occupational and environmental risks; endemic diseases, and prevalent chronic diseases.	<p>2.4.1. List the demographic and environmental risk factors in the community.</p> <p>2.4.2. Describe different occupational hazards in the community.</p> <p>2.4.3. Discuss endemic and prevalent chronic diseases in the community.</p> <p>2.4.4. Analyze the risk factors, occupational and environmental hazards in a simulated field visit.</p> <p>2.4.5. Apply analytical thinking in collecting data</p>
2.5 Describe the principles of disease prevention, and empower	2.5.1. Describe different approaches for disease prevention.

<p>communities, specific groups or individuals by raising their awareness and building their capacity.</p>	<p>2.5.2. Identify the role of health education in the community and individual welfare. 2.5.3. Discuss different approaches to increase individual and community awareness. 2.5.4. Identify capacity building programs to increase the community awareness. 2.5.5. Formulate a plan for a specific disease prevention 2.5.6. Design a setting for health education. 2.5.7. Deliver a health education message 2.5.8. Use communication and presentation skills effectively.</p>
<p>2.6 Recognize the epidemiology of common diseases within his/her community, and apply the systematic approaches useful in reducing the incidence and prevalence of those diseases.</p>	<p>2.6.1. Identify the basics of disease epidemiology. 2.6.2. Describe the common community disease epidemiology. 2.6.3. Identify the steps to reduce the incidence and prevalence of a specific disease. 2.6.4. Calculate the incidence and prevalence of a specific disease. 2.6.5. Formulate a management plan for common community diseases. 2.6.6. Show accuracy while analyzing data.</p>
<p>2.7 Provide care for specific groups including pregnant women, newborns and infants, adolescents and the elderly.</p>	<p>2.7.1. Identify the characteristic features of each specific group of individuals. 2.7.2. Describe the health promotion and anticipatory care for each specific group. 2.7.3. Tailor the health care service according to the targeted specific group. 2.7.4. Demonstrate respect to variations among different individuals and their specific needs.</p>
<p>2.8 Identify vulnerable individuals that may be suffering from abuse or neglect and take the proper actions to safeguard their welfare.</p>	<p>2.8.1. Define disadvantageous groups in health care. 2.8.2. Describe different types of abuse and neglect. 2.8.3. Discuss the approach for the management of different types of abuse. 2.8.4. Identify the approach for dealing with various forms of neglect. 2.8.5. Detect the type of abuse in a presented scenario. 2.8.6. Identify the actions of neglect in a given case scenario.</p>

	2.8.7. Formulate a management plan for a case of abuse or neglect.
	2.8.8. Show compassion, empathy, and sympathy in dealing with cases of abuse or neglect.
2.9 Adopt suitable measures for infection control.	2.9.1. Define nosocomial infection. 2.9.2. Identify different sources of infection in a clinical setting. 2.9.3. List infection control steps in different clinical situation. 2.9.4. Apply different infection control measures in a clinical setting like hand washing. 2.9.5. Manage a case of nosocomial infection. 2.9.6. Show commitment to infection control regulations.

Competency Area 3: The graduate as a professional.

Key competency	PLOs
3.1 Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.	3.1.1. Define professionalism. 3.1.2. List the academic and professional behaviors in all aspects of the practice. 3.1.3. Identify the principles of building appropriate academic and professional relationships. 3.1.4. Presents him or herself in a respectful and professional manner. 3.1.5. Demonstrate honesty, integrity, commitment, compassion, and respect in a patient encounter. 3.1.6. Complete clinical, administrative, and curricular tasks effectively. 3.1.7. Dress and behave appropriately. 3.1.8. Demonstrate appropriate professional relationships with patients, families, and staff
3.2 Adhere to the professional standards and laws governing the practice, and abide by the national code of ethics issued by the Egyptian Medical Syndicate	3.2.1. Identify the code of ethics issued by the Egyptian Medical Syndicate. 3.2.2. Identify the laws governing the clinical practice. 3.2.3. Decide the different law consequences to a given clinical situation. 3.2.4. Apply the national code of ethics to curricular activities and different clinical situations. 3.2.5. Demonstrate respect to the national code of ethics and laws in a patient encounter.

3.3 Respect the different cultural beliefs and values in the community they serve.	3.3.1. Identify the value of cultural differences. 3.3.2. Demonstrate respect towards community diversity presented in case vignettes. 3.3.3. Behave positively respecting different cultural beliefs and values in the community.
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. Identify the code of ethics regarding patient equality 3.4.2. Define stigmatized and different marginalized patient groups in clinical settings. 3.4.3. Point out the improper behavior in presented video or role play. 3.4.4. Demonstrate equality while dealing with patients of different marginalized groups.
3.5 Ensure confidentiality and privacy of patients' information.	3.5.1. Define the code of ethics regarding patient confidentiality. 3.5.2. Identify the points of violation of patient confidentiality in a given case scenario. 3.5.3. Demonstrate respect toward patient privacy.
3.6 Recognize basics of medico-legal aspects of practice, malpractice and avoid common medical errors.	3.6.1 Identify the basics of legal responsibility for medical errors. 3.6.2 Outline the different medicolegal aspects of malpractice. 3.6.3 Describe the common causes of medical errors and how to avoid them. 3.6.4 Differentiate between different types of malpractice and medical errors. 3.6.5 Document of presented health service for medicolegal aspects properly. 3.6.6 Deal with patients according to the standards of clinical practice to avoid medical errors.
3.7 Recognize and manage conflicts of interest.	3.7.1. Define conflict of interest 3.7.2. Describe conflict of interest management 3.7.3 Point out conflicts of interest in different situations. 3.7.4 Demonstrate honesty by declaring a conflict of interest when present
3.8 Refer patients to the appropriate health facility at the appropriate stage.	3.8.1. Identify the hierarchy of the healthcare system in Egypt 3.8.2. List the indications for patients' referral. 3.8.3. Take the decision of patient referral when indicated.

	3.8.4. Deliver all available health care to the patients till referral.
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.	<p>3.9.1. Describe unethical behaviors that might endanger patient safety.</p> <p>3.9.2. Identifies the appropriate channels to report unprofessional or unethical behavior.</p> <p>3.9.3. Points out when to report unprofessional, unethical, or unsuitable behavior in presented videos or role play.</p> <p>3.9.4. Exhibits self-awareness, self-management, social awareness, and relationship management.</p>

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

Competency	PLOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Describe the normal anatomy of the organ/system related to the</p> <p>4.1.2. Identify the normal physiology of the target organ and systems involved in the disease.</p> <p>4.1.3. Describe the normal structure of different tissues of the body.</p> <p>4.1.4. Discriminate between the different normal anatomical landmarks.</p> <p>4.1.5. Interpret the relationship between different physiological tests and organ functions.</p> <p>4.1.6. Relate the difference in tissue structure to the difference in their function.</p> <p>4.1.7. Integrate the anatomical, physiological, and histological criteria of different organs.</p> <p>4.1.8. Apply search methods to improve basic knowledge.</p>
4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	<p>4.2.1. Describe the basics of the biochemistry involved in different homeostasis processes in the human body.</p> <p>4.2.2. Identify the different homeostasis mechanisms at the cellular level.</p>

	<p>4.2.3. Describe the molecular basis for the human genome.</p> <p>4.2.4. Relate molecular, biochemical, and cellular homeostasis to functions of different body functions.</p> <p>4.2.5. Demonstrate analytical thinking while assessing different body functions.</p>
<p>4.3 Recognize and describe main developmental changes in humans and the effect of growth, development and aging on the individual and his family.</p>	<p>4.3.1. Describe the general process of embryogenesis.</p> <p>4.3.2. Identify the steps of embryological development of the target organ/system.</p> <p>4.3.3. Describe the developmental changes in the human life cycle.</p> <p>4.3.4. Identify the effect of growth and development on family dynamics.</p> <p>4.3.5. Outline the effect of aging on different body systems with consequent disease processes.</p> <p>4.3.6. Relate the difference in body structure and function to different age groups.</p> <p>4.3.7. Apply a patient-centered approach in patient encounters taking into consideration the family dynamics aspects.</p> <p>4.3.8. Demonstrate respect to the effect of growth and development on family dynamics</p>
<p>4.4 Explain normal human behavior and apply theoretical frameworks of psychology to interpret the varied responses of individuals, groups and societies to disease.</p>	<p>4.4.1. Explain the application of psychodynamic theories of human thought and behavior in describing and analyzing individuals, groups, or societies' behavior.</p> <p>4.4.2. Describe the basics of the human mind and behavior with various diseases.</p> <p>4.4.3. Interpret the different behaviors of patients and their families in response to different clinical settings.</p> <p>4.4.4. Adapt to different behaviors of patients and their families in different clinical situations.</p>
<p>4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).</p>	<p>4.5.1. Define the causative factors, risk factors, and precipitating factors for different disease processes.</p> <p>4.5.2. Describe the etiopathogenesis of common diseases of the specified system/ and its emergent conditions.</p> <p>4.5.3. Analyze different case scenarios to reach the underlying etiology.</p>

	4.5.4. Show analytical thinking while analyzing different clinical situations.
4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. Compare different abnormalities of the body structure about their role in disease pathogenesis.</p> <p>4.6.2. Outline different abnormalities of the function of different body systems concerning the development of various diseases.</p> <p>4.6.3. Integrate the structural abnormalities with the clinical presentations of different diseases.</p> <p>4.6.4. Relate the disorders in organ functions to the disease process.</p> <p>4.6.5. Value the holistic approach in the management of different clinical problems.</p>
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.	<p>4.7.1. Describe the pharmacokinetics and pharmacodynamics of different drug families</p> <p>4.7.2. Define the indications and contraindications for the main medications involved in the current.</p> <p>4.7.3. List the adverse effects and drug-drug interactions for a certain medication.</p> <p>4.7.4. Define different types of medication abuse and its hazards on the individual and society.</p> <p>4.7.5. Select the proper drug according to the clinical situation.</p> <p>4.7.6. Combine different drugs respecting their mechanism of action and drug-drug interaction.</p> <p>4.7.7. Demonstrate rational drug use while prescribing medications respecting patient contextual factors.</p> <p>4.7.8. Guard against medication abuse while prescribing treatment for different clinical situations.</p>
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.	<p>4.8.1. Identify the principles of basic science practical tests for structure identification like gross and microscopic examination.</p> <p>4.8.2. Identify the principles of tests of body physiology and biochemical reactions.</p> <p>4.8.3. Describe different findings of different laboratory tests relevant to the</p> <p>4.8.4. Discuss different findings of imaging studies relevant to the disease</p> <p>4.8.5. Identify the pathological findings of different diseases.</p>

- 4.8.6. List different functional tests for the organ /system included in the disease and their findings
Practice basic science practical skills.
- 4.8.7. Relate the findings of basic science practical tests to clinical practice.
- 4.8.8. Interpret the different findings of investigations ordered for the patient.
- 4.8.9. Collaborate with other healthcare providers to reach a diagnosis.

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

Competency		PLOs
5.1	Recognize the important role played by other healthcare professionals in patient' management.	<p>5.1.1 Define health care team.</p> <p>5.1.2 Describe the role of the health care team in patients' management.</p> <p>5.1.3 Practice teamwork in role play for different clinical situations.</p> <p>5.1.4 Collaborate with other healthcare team members.</p> <p>5.1.5 Demonstrate respect toward other healthcare colleagues</p>
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.	<p>5.2.1 Define overlapping and shared responsibilities of the health care team in effective patient management.</p> <p>5.2.2 Identify the role of every healthcare team member in the process of decision-making.</p> <p>5.2.3 Practice collaborative decision-making in simulated scenarios for different clinical presentations.</p> <p>5.2.4 Collaborate with other healthcare team members</p> <p>5.2.5 Demonstrate respect towards each member of the healthcare team</p> <p>5.2.6 Demonstrate respect towards the professionalism of other colleagues</p>
5.3	Implement strategies to promote understanding, manage differences, and resolve conflicts	<p>5.3.1 Outline different causes for conflict in health team practice.</p> <p>5.3.2 Identify different strategies for conflict management in health care provision.</p>

<p>in a manner that supports collaborative work.</p>	<p>5.3.3 Practice conflict management in adopted role-play scenarios.</p> <p>5.3.4 Communicate effectively with other colleagues to resolve conflict and overcome differences in opinions.</p> <p>5.3.5 Demonstrate respect to the solution for the conflict in favor of collaborative teamwork and patient care</p>
<p>5.4 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.</p>	<p>5.4.1 Identify different leadership styles</p> <p>5.4.2 Identify the criteria of a successful leader</p> <p>5.4.3 Describe different strategies to deal with different obstacles encountered by leadership.</p> <p>5.4.4 Practice leadership skills in simulated scenarios for different clinical situations.</p> <p>5.4.5 Demonstrate respect and appreciation while dealing with juniors and other healthcare team members while being a leader</p> <p>5.4.6 Apply practices for continuous improvement of the work environment while being a leader.</p>
<p>5.5 Communicate effectively using written health records, electronic medical records, or other digital technology.</p>	<p>5.5.1 List the components of a health record.</p> <p>5.5.2 Identify different types of health records and describe their pros and cons</p> <p>5.5.3 List the advantages of digital technology in health data.</p> <p>5.5.4 Practice written health record writing.</p> <p>5.5.5 Criticize the electronic data recording system effectively.</p> <p>5.5.6 Demonstrate honesty and accuracy while recording and presenting health data.</p> <p>5.5.7 Demonstrate respect to using medical records in patient encounters</p>
<p>5.6 Evaluate his / her work and that of others using constructive feedback</p>	<p>5.6.1 Define constructive feedback</p> <p>5.6.2. Discuss the value of constructive feedback.</p> <p>5.6.3 Practice constructive feedback in simulated scenarios.</p> <p>5.6.4 Demonstrate respect to the given feedback in a professional and effective way</p>
<p>5.7 Recognize own personal and professional limits and seek help from colleagues and supervisors when necessary.</p>	<p>5.7.1. Identify when to seek personal and professional help in patient encounters.</p> <p>5.7.2. Outline different types of limitations in patient encounters and how to deal with them</p>

	<p>5.7.3. Point out different limitations in a given role-play</p> <p>5.7.4. Identify the indications for counseling in a given case scenario.</p> <p>5.7.5. Apply patient-centered care despite the presence of personal limitations Consistently demonstrate compassion, respect, and empathy</p>
<p>5.8 Apply fundamental knowledge of health economics to ensure the efficiency and effectiveness of the health care system.</p>	<p>5.8.1 Discuss the basic health economics.</p> <p>5.8.2 Define the efficiency and effectiveness of the healthcare system</p> <p>5.8.3 Outline different approaches to improve the healthcare system taking into consideration the efficacy and effectiveness.</p> <p>5.8.4 Analyze different work situations to define the points of strengths and weaknesses.</p> <p>5.8.5 Demonstrate accuracy and analytical thinking in different situations</p> <p>5.8.6 Formulate an approach to improve the efficacy of a healthcare system</p>
<p>5.9 Use health informatics to improve the quality of patient care.</p>	<p>5.9.1 Define health informatics.</p> <p>5.9.2 List different types of health informatics.</p> <p>5.9.3 Differentiate between different types of data according to source and usage.</p> <p>5.9.4 Apply honesty and accuracy while providing medical care.</p>
<p>5.10 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.</p>	<p>5.10.1 Identify the regulations that govern clinical data documentation</p> <p>5.10.2 Define the legal responsibility of the clinician regarding clinical documentation.</p> <p>5.10.3 Practice different forms of clinical documentation.</p> <p>5.10.4 Demonstrate honesty and accuracy while dealing with clinical data</p>
<p>5.11 Improve the health service provision by applying a process of continuous quality improvement</p>	<p>5.11.1 Identify the standards of quality in a clinical setting</p> <p>5.11.2 Formulate a plan for quality improvement in a clinical setting</p> <p>5.11.3 Demonstrate accountability to patients, society, and the profession.</p>

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| <p>5.12 Show commitment toward continuous improvement of quality in the clinical setting.</p> | <p>5.12.1 Define the role of the physician toward patients, society, and the profession.</p> <p>5.12.2 Define accountability in inpatient encounters.</p> <p>5.12.3 Identify the points of dereliction in simulated clinical situations.</p> <p>5.12.4 Show commitment towards different roles of the clinician.</p> |
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Competency Area 6: The graduate as a lifelong learner and researcher.

Competency		PLOs
6.1	Regularly reflect on and assess his / her performance using various performance indicators and information sources.	6.1.1 List the main performance indicators
		6.1.2 Describe different information sources for performance assessment
		6.1.3 Apply the use of performance indicators in clinical situations
		6.1.4 Show integrity and accuracy while assessing his/her performance
6.2	Develop, implement, monitor, and revise a personal learning plan to enhance professional practice	6.2.1 Define personal learning plan
		6.2.2 Identify the required skills to design a personal learning plan
		6.2.3 Identify the value of continuous medical education,
		6.2.4 List different approaches for continuous medical education
		6.2.5 Design a Personal Learning Plan
		6.2.6 Implement a personal learning plan
		6.2.7 Monitor a personal learning plan
		6.2.8 Criticize a Personal Learning Plan
		6.2.9 Show enthusiasm and commitment during implementing a learning plan
6.3	Identify opportunities and use various resources for learning.	6.3.1 Define a learning opportunity
		6.3.2 List different resources for learning
		6.3.3 Select the proper learning opportunity to meet personal demands and capabilities
		6.3.4 Use various resources to enhance personal learning
		6.3.5 Demonstrate respect to proper learning opportunity
6.4	Engage in inter-professional activities and collaborative	6.4.1 List inter-professional activities
		6.4.2 Define collaborative learning

		6.4.3 Apply teamwork and collaboration with other colleagues
6.5	Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that address them.	6.5.1 Define practical uncertainty 6.5.2 Outline causes of uncertainty in different clinical situations. 6.5.3 Use focused question generation for situations of uncertainty 6.5.4 Identify gaps in clinical and professional encounters 6.5.5 Demonstrate respect to the role of research methods in addressing knowledge gaps
6.6	Effectively manage learning time and resources and set priorities.	6.6.1 Define time management. 6.6.2 List different learning resources 6.6.3 Outline causes for waste of time during the learning process. 6.6.4 Prepare a time plan for learning 6.6.5 Set priorities in the learning process 6.6.6 Demonstrate respect to time and resources in the learning process.
6.7	Demonstrate an understanding of the scientific principles of research including its ethical aspects and scholarly inquiry and Contribute to the work of a research study.	6.7.1 Recognize the basics of research methods including different study designs. 6.7.2 Identify the ethical principles for research. 6.7.3 Prepare a research protocol. 6.7.4 Point out unethical points in a research protocol 6.7.5 Demonstrate honesty and ethics while conducting research.
6.8	Critically appraise research studies and scientific papers in terms of integrity, reliability, and applicability	6.8.1 Define the parameters for the critical appraisal of a scientific paper. 6.8.2 Describe the approach for the critical appraisal of a scientific paper. 6.8.3 Practice critical appraisal for a sample of scientific papers 6.8.4 Show accurate analytical thinking while appraising a scientific paper
6.9	Analyze and use numerical data including the use of basic statistical methods.	6.9.1 Define statistical methods 6.9.2 List different types of statistical data. 6.9.3 Identify the main types of statistics. 6.9.4 Outline the main inferential statistic tests and their indications for use. Practice basic statistical tests.

	6.9.5 Show accuracy while collecting and analyzing data
6.10 Summarize and present to professional and lay audiences the findings of relevant research and scholarly inquiry.	6.10.1 Identify the criteria of an efficient research presentation. 6.10.2 Practice presentation of scientific topics in Student seminars 6.10.3 Demonstrate proper language, dress code, and communication skills during a scientific presentation

IV- Curriculum Structure and Contents

- **The study follows the approved points system according to the following rules:**
 - The total number of accredited points in the program necessary for graduation is (301) accredited points, including study packages, core courses, elective courses, vertical integration materials, and university requirements.
 - The accredited points system is based on that a student during an academic year can do about 1,500-1,800 hours of academic work, with every 30 hours translated into one accredited point added to his balance.
 - Accredited points are distributed to all course units (compulsory or optional) and accredited points are awarded only when the student completes the course and successfully passes all its tests.
 - Academic week = 1.5 credit points
 - The effort expended by the student is divided into (Student Workload, whether in the library, the hospital, or the classroom, into: -
 1. **Study hours:** 6-7 hours per day x 5 days = 30-35 hours per week. The percentage allocated to contact hours is not less than (60%) of the total approved points for each study package or separate course and for the program as a whole, and it can take several forms, such as:
 - a. Lectures, seminars, discussion in groups, and practical and clinical lessons.
 - b. Educational activities within the institution such as scientific workshops, library, clinical courses and self-learning sessions.
 - c. Activities related to the educational process, such as: based learning (field visits, research papers and reports)

2. **Hours for free study outside the institution,** and the percentage allocated to it does not exceed (40%), at a rate of 3 hours per day x 5 days = 15 hours per week. It can take several forms, such as preparing presentations, home collection, and preparing educational materials.
- The hours of study and educational activities between the student and the faculty members or supporting staff, which represent about 40% of the teaching activities, are documented in the approved points system in the achievement file (Portfolio). It includes (duties - projects) knowledge bank (Clinical keys, Incision academy) - presentations - skills laboratory assessment - Quiz - Reflection
 - The program may contain an e-learning portion of no more than 20%.

Study plan: -

Classes and duration of the study:

- The duration of study to obtain a bachelor's degree in medicine and surgery - the credit points system is five levels of study divided into ten semesters.
- Each academic level has two main semesters, as follows:
 - First semester (fall)
 - Second semester (spring)
- The duration of study and exams for each of the first, second, and third levels is thirty-eight weeks (each semester has nineteen weeks, including exams).
- The duration of study and exams for the fourth level is forty-two weeks (each semester has twenty-one weeks, including exams).
- The duration of study in the fifth level is forty-six weeks (each semester has twenty-three weeks, including exams).
- Start date of the year:
 - Study begins for levels one through three in September of each year.
 - Study begins at the fourth level in October of each year.
 - Study begins at the fifth level in December of each year.
 - The College Council proposes to amend the start or end dates of any of the semesters within the framework of the time map determined by the Supreme Council of Universities and approved by the University Council.

- The total number of accredited points is (301) accredited points.
- The program consists of two stages: -

The first stage includes: -

- 5 basic semesters, each semester lasting 19 weeks, including exams.
- Courses/study packages that include the basic principles of medical sciences - in addition to an introductory course/week on the principles of studying medicine.
- Courses/study packages that include the body's systems (organ system) to teach the basic medical sciences related to this system in an integrated manner (horizontally as well as longitudinally to link them with clinical application).
- Teaching professionalism, laws, and psychology.
- Longitudinal courses provide early clinical exposure and include teaching basic clinical and communication skills.
- Electives courses that are not counted toward the student's grades.

The second stage includes: -

- 5 basic semesters ranging from 19-23 weeks, including exams.
- Courses include general clinical sciences (internal medicine - surgery, obstetrics and gynecology, pediatrics, ophthalmology, ear, nose and throat, internal medicine and surgery, family medicine, considering integration with basic sciences, community medicine, forensic medicine and toxicology).
- Clinical sciences are taught in a horizontal, reciprocal clinical rotation system (Classic Clinical Rotations) over the course of the semester or academic year, where one educational group is taught after another, with a focus on clinical training in taking patient histories and methods of detection, diagnosis, and dealing with patients.

Table of distribution of separate courses at levels and semesters

Year 1 Semester (1)				
Mark	Credit Points	weeks	Course/Module Title	Course Code/Module
		1	Orientation Week	
180	12	8	Foundation 1	MED 101
157.5	10.5	7	Foundation2	MED 102
22.5	1.5	Longitudinal course (3h/week)	Communication skills	MED 103

30	2	Longitudinal course (4h/week)	Faculty elective 1*	E 101
20	1	Longitudinal course (2h/week)	*مدخل الجودة والاعتماد في مؤسسات التعليم العالي	UNI 101
360	27	16		Total
Year 1 Semester (2)				
180	12	8	Musculoskeletal	MED 104
180	12	8	Cardiovascular system	MED 105
45	3	Longitudinal course (6h/week)	Medical professionalism	MED 106
20	1	Longitudinal course (2h/week)	*القضايا المجتمعية	UNI 102
30	2	Longitudinal course (4h/week)	Faculty Elective 2*	E 102
405	30	16	الاجمالي	Total
Year 2 Semester (3)				
180	12	8	Respiratory system	MED 201
180	12	8	Blood & Lymph	MED 202
45	3	Longitudinal course (6h/week)	Psychology	MED 203
15	1	Longitudinal course (2h/week)	Basic clinical skills I	MED 204
30	2	Longitudinal course (4h/week)	Faculty elective 3*	E 201
420	30	16		Total

Year 2 Semester(4)				
Mark	Credit Points	Weeks	Course/Module Title	Course Code/Module
157.5	10.5	7	Gastrointestinal system	MED 205
112.5	7.5	5	CNS & Special Senses	MED 206
90	6	4	CNS & Special Senses (2)	MED 207
60	4	Longitudinal course (4h/week)	Basic clinical skills II	MED 208
30	2	Longitudinal course (4h/week)	Faculty elective 4*	E 201

420	30	16		Total
Year 3 Semester (5)				
157.5	10.5	7	Genitourinary	MED 301
112.5	7.5	5	Endocrine	MED 302
90	6	4	Community	MED 303
45	3	Longitudinal course (6h/week)	Research	MED 304
60	4	Longitudinal course (8h/week)	Basic clinical skills III	MED 305
465	31	16		Total
Year 3 Semester (6)				
330	16.5	11	Child health module	MED 307
150	7.5	5	Ophthalmology	MED 308
20	1	Longitudinal course (2h/week)	Leadership and presentation skills	MED 309
50	2.5	Longitudinal course (5h/week)	Basic life support	MED 310
30	1.5	Longitudinal course (3h/week)	Faculty elective 5*	E 301
550	29	16		Total
Year 4 Semester (7)				
390	19.5	13	Medicine 1	MED 401
150	7.5	5	Forensic and Clinical Toxicology	MED 402
20	1	Longitudinal course (1.5 h/week)	Patient safety.	MED 403
560	28	18		Total
Year 4 Semester (8)				
Mark	Credit Points	weeks	Course/Module Title	Course Code/Module
300	15	10	Obstetrics and	MED 404
240	12	8	Medicine 2	MED 405
40	2	Longitudinal course (3.5 h/week)	Ethical and legal issues in medical practice	MED 406

20	1	Longitudinal course (1.5 h/week)	Doctor-patient communication.	MED 407
600	30	18		Total
Year 5 Semester (9)				
360	18	12	Surgery1	MED 501
240	12	8	Surgery2	MED 502
20	1	Longitudinal course (1.5 h/week)	Field training	MED 503
Extended	2	Extended course (3h/week)	Research project ▪	MED 504
620	33	20		Total
Year 5 Semester (10)				
240	12	8	Medicine 3	MED 505
120	6	4	Family Medicine	MED 506
120	6	4	Emergency	MED 507
120	6	4	ENT	MED 508
80	2	Extended course (3h/week)	Research project ▪	MED 509
20	1	Longitudinal course (1.5 h/week)	Evidence-based medicine	MED 501
700	33	20		Total

* Not included in marks

▪ Extended throughout the two semesters

Elective courses:

- The student chooses five elective courses over the course of the five semesters “one course for each semester” from a list approved annually by the College Council before the start of study, with a minimum of 3 medical courses.
- The grades obtained by the student in elective courses are not added to the semester grades or cumulative total, and failure in these courses does not affect the student’s transfer from one academic level to a higher level.
- The College Council may add optional subjects that are not included in the list after the University Council approves them

<u>Medical</u>			<u>Non-Medical</u>		
1	E 101	Stem cells	Computer and Programming languages	E 201	1
2	E 102	Biomedical genetics	Training of trainers (TOT)	E 202	2
3	E 103	Molecular biology	Financial management	E 203	3
4	E 104	Advanced life support	E-Marketing	E 204	4
5	E 105	Tissue culture	English language	E 205	5
6	E 106	Experimental animal model	German language	E 206	6
7	E 107	‘Ultrasonography	French language	E 207	7
8	E 108	Clinical Nutrition	Translation	E 208	8
9	E 109	Surgical intensive care	Physics	E 209	9
10	E 110	Complementary and alternative medicine	Philosophy	E 210	10
11	E 111	Organ transplantation	Leadership and project management	E 211	11
12	E 112	Echocardiography	Time management	E 212	12
13	E 113	Pain management techniques	Creativity and mind mapping	E 213	13
14	E 114	Telemedicine	Human Resources management	E 214	14
15	E 115	Health economics	Public Relations	E 215	15
16	E 116	Sport medicine	Hospital management	E 216	16
17	E 117	Medical errors	Disaster management for health professionals	E 217	17
			Quality of healthcare	E 218	18
			Biomedical informatics	E 219	19
			Medical engineering	E 220	20
			Artificial intelligence	E 221	21

V- Module Specification (Annex 2)

Competencies -Modules Matrix (Annex 3)

Program Learning Outcomes – Modules Matrix (Annex 4)

VI-Program admission requirements

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

VII- Regulations for progression and program completion:

- The student is not considered successful in any course unless he obtains a grade of at least D.
- According to the general assessment of students in the bachelor's degree (graduation), based on the total score obtained by the student in all years of study, excluding university requirements and elective courses, students are also arranged according to this total.
- The passing grade in the study package or course is not less than 60% of its total, provided that the success rate in the final written examination is not less than 40%.
- If there are multiple examination papers in the study package or course, a score of 40% is required for the total written examination papers.
- If a student fails one or more of the study packages or compulsory separate courses in the program, he has the right to take the second-round exam in accordance with the applicable rules.
- If the student fails an elective course, he can repeat it or study another alternative elective course to complete the graduation requirements after consulting the academic advisor.
- An exam is held for university requirements and elective courses, and grades for any of these subjects are not added to the semester grades or cumulative total, and failure in them does not affect the student's transfer from one level of study to another, and success in them is 50%.
- If the student is deprived, he is considered to have failed the course or study package, and a grade of "deprived" is recorded for him. Upon repeating the course and passing it, the student receives the grades he earned, not exceeding 64.9%.

VIII-Teaching and learning methods:

The program adopts the following teaching and learning strategies, for example:

- Integrated Learning; Horizontal and vertical
- Student Centered Learning
- Collaborative learning
- Directed Self Learning
- Interactive learning
- Community oriented learning
- Flipped Learning

The program adopts teaching and learning methods and tools that support the achievement of integrative learning and are consistent with the educational policies mentioned above, for example:

Inverted lecture	-Jigsaw	E-learning	Role play	Digital storytelling
Seminars	Bedside case discussion	Debate	Primary health care visits	Clinical skills Labs
Field Visits	Peer assisted learning	Brainstorming	Hands on training	Case based lecture.
Team Based Learning	Assignments	Projects	Discussion	Lectures

1. The program adopts an approved points system, in which about 60% of working hours are counted for contact hours and about 40% for self-learning hours.
2. The program adopts various activities for self-learning, such as (student assignments - using Incision Academy - studying at home and college... etc.)

IX- Student Assessment:

A. Attendance Criteria:

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

B. Types of Assessment:

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

C- Assessment Tools:

Evaluation of Students level of performance is achieved by observation of rating scales and by applying variable types of tests as follows:

I. Assessment of cognitive skills is achieved by a written exam including:

- Questions recalling knowledge in the form of:

- Short essay questions.
- Multiple choice questions
- Extended Matching questions
- Short-answer questions
- Interpretation of specific data: by
 - Problem-solving questions: though setting short, questions preceded by case history
 - Case Based multiple choice questions and extended matching questions.

II. Assessment of psychomotor skills through setting:

- Evaluation of student activities
- Objective Structured Practical exams (OSPE).
- Objective Structured Clinical cases exams (OSCE).

III. Assessment of affective skills:

Through evaluation of presentations and observation of different student activities including role play, specially prepared stations in OSCE examinations

D- SUMMATIVE ASSESSMENT METHODS, THEIR WEIGHT AND SCHEDULE:

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

D- Total cumulative marks:

First level	765
Second level	840
Third level	1015
Fourth level	1160
Fifth level	1320
Cumulative total	5100

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.

X- Evaluation of program Learning Outcomes of the Module

The acquisition of program LOs would be evaluated as shown in the following table.

Evaluator	Tool	Sample
1- Senior students	-Questionnaires -Review of assessment Methods -Review of examination results	Students in the last year
2- Alumni	-Questionnaires - Group discussions	Recently graduated within 5 years
3- Stakeholders	-Questionnaires - Focus group discussions	1-Directors of ministry of health and population Hospitals , medical Insurance. 2-Administrative staff in the Ministry of health (hospital)
4-External Evaluator(s) (External Examiner(s))	-Reports	External examiners in Each Module

5- Other (academic leaders of the faculty)	-Questionnaires - focus group discussions	Dean, Vice deans, directors of faculty Hospitals, heads of departments
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Annex 1

Academic Reference Standards/ (5+2 credit points) Program aims Matrix

National Academic Reference Standards (Attributes of Medical Graduates)	M.B.B.CH. program (5+2 credit points) aims
Work to maintain health and promote human wellbeing.	Provide primary health care as family physician/general practitioner, with emphasis on disease prevention and health promotion.
Behave professionally and adhere to medical ethics.	Adhere to professionalism and adopt the ethics of medical practice and respect the religious, cultural and humanity values.
Provide -quality and safe patient-centered care, focusing on primary health care and dealing with common health problems in his/her community.	Achieve the clinical and practical standards through a patient-centered care required to compete in the national labor market.
Value the importance of a good doctor/patient relationship, and work to establish and maintain it.	Achieve the clinical and practical standards through a patient-centered care required to compete in the national labor market.
Work effectively with other health care professionals respecting their roles and their contribution to the team.	Collaborate with other health care professionals, appreciating their role, respecting the hierarchy of the health care system with acquisition of the skills of professionalism and leadership.
Contribute to the development and empowerment of his/her community.	Employ the clinical practice for the service and improvement of the community.
Work as a lifelong learner- on his/her own continuous professional development, including being equipped to engage in post-graduate and research studies.	Continue self-learning and research to cope with the advancement in the medical field.

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 across the cell membrane.
- 4.1.15. Identify the term homeostasis and the negative and positive feedback mechanisms, and to recall the examples of homeostasis in the different human body systems.
- 4.1.16. Work effectively in a group in lab or during preparation of seminars.
- 4.1.17. Use computer and internet to extract information and knowledge
- 4.1.18. Identify the nucleic acid structure and function.
- 4.1.19. Describes how the information is transferred from DNA (deoxyribonucleic acid) during cell division (by

replication & transcription) and protein synthesis (translation).

4.1.20. Explain mechanisms of DNA repair and different types of gene mutation.

4.1.21. Identify the genetic code and its different characteristics

4.1.22. Describe the recombinant DNA technology and 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

<p>4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.</p>	<p>4.2.1 Describe the types, structure, functions and isomerism of carbohydrates and the importance of sugars and sugar derivatives.</p> <p>4.2.2 Recognize the types, structure and functions of lipids and the importance of the compound and derived lipids.</p> <p>4.2.3 Describe different amino acids and protein structures, classifications and properties as well as the structure and functions of hemoglobin.</p> <p>4.2.4 Define the nature of enzymes, mechanisms of action, isoenzymes, different classes of enzymes and their role in the diagnosis of diseases.</p> <p>4.2.5 Communicate ideas and arguments effectively.</p> <p>4.2.6 Manage time and resources effectively and set priorities.</p>
<p>4.3 Recognize and describe main developmental changes in humans and the effect of growth, development and aging on the individual and his family.</p>	<p>4.3.1 Identify the changes in human development from fertilization, 1st week, 2nd week, 3rd week changes.</p> <p>4.3.2 Mention the subunits of each nuclear component and their role in its function.</p> <p>4.3.3 Correlate his knowledge in embryology with clinical findings caused by errors in development.</p> <p>4.3.4 Use internet and learn searching skills.</p> <p>4.3.5 Apply the principles of continuous medical education; CME.</p>
<p>4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).</p>	<p>4.5.1 Explain the basis of cytogenetics and chromosomal aberrations.</p> <p>4.5.2 Establish a concise activity according to standard scientific thinking and integrity.</p> <p>4.5.3 Interpret cellular changes when present in different</p>
<p>4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.</p>	<p>4.6.1 Predict the intracellular or tissue components likely to be involved in a functional deficit.</p> <p>4.6.2 Manage time efficiently and work in group.</p> <p>4.6.3 Interpret biochemical laboratory findings of carbohydrates, lipids and proteins.</p>

	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.	<p>4.8.1 Describe the basic steps in preparing specimens for light and electron microscopy.</p> <p>4.8.2 Apply the anatomical facts while examining the living subject in order to reach a proper diagnosis.</p> <p>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).</p> <p>4.8.4 Interpret the electron microscopic appearance of different cellular and intracellular components in electron photomicrographs</p> <p>4.8.5 Interpret the light microscopic appearance of normal cells, tissues and organs.</p> <p>4.8.6 Conclude the normal structure of any given histological slide.</p> <p>4.8.7 Practice basic practical skills and competencies essential for future medical practice.</p> <p>4.8.8 Identify dissected structures of the upper limb, thorax, abdomen, pelvis and perineum according to the present relations.</p> <p>4.8.9 Distinguish consistency of arteries, veins and nerves.</p> <p>4.8.10 Read x- rays and draw diagrams showing different structures, organs and their relations.</p> <p>4.8.11 Identify the mechanical and the optical components of light microscope.</p> <p>4.8.12 Identify the equipment used in the paraffin micro technique.</p> <p>4.8.13 Examine haematoxylin and eosin-stained slides under the microscope.</p> <p>4.8.14 Adjust the slide at the high power (1000) in light microscope.</p> <p>4.8.15 Distinguish between the ordinary haematoxylin and eosin-stained section and others with special stains</p> <p>4.8.16 Analyze subject's given data.</p>

- 4.8.17 Diagnose, provisionally, alterations in physiological parameters.
- 4.8.18 Differentiate between different cases of fluid volume expansion and contraction.
- 4.8.19 Present clearly and effectively a scientific topic in the practical class, a staff meeting or the yearly scientific day.
- 4.8.20 Perform simple blood tests, interpret them, and estimate plasma and body fluids volumes.
- 4.8.21 Apply Fick's principle in different dye-based dilution techniques.
- 4.8.22 Plot data charts to clarify different physiological or pathophysiological states.
- 4.8.23 Deal with laboratory reagents and instruments used in biochemistry laboratory.
- 4.8.24 Identify the physical and chemical properties of carbohydrates and proteins.
- 4.8.25 Perform chemical reactions to identify different types of carbohydrates and active groups of proteins.
- 4.8.26 Demonstrate respect to the role of staff and co-staff members regardless of degree or occupation.
- 4.8.27 Communicate effectively and respectfully with staff members.

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

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

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

3. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment methods:

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

D- Weighing of Assessment:

Method of Assessment		Marks	Percentage
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.



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Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

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

Module Coordinator: Dr. Noha Abdelaziz

Program Coordinator: Prof. Dr. Zeinab Kasemy



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"			



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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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.3.1 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1 Identify the main differences between prokaryotes and eukaryotes, recognize different components of the bacterial cell, and outline the functions for each component of the bacterial cell.</p> <p>4.5.2 Define bacterial endospores and recognize their medical importance and outline the essential requirements for bacterial survival and replication.</p>



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- 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 according to standard taxonomy
- 4.5.29 Integrate basic information about life cycles, clinical picture and complications to point out the diagnostic test of choice to confirm or exclude the provisional diagnosis.
- 4.5.30 Analyze theoretical information to select the most appropriate diagnosis from differential diagnosis.
- 4.5.31 Point out a differential diagnosis for each parasitic disease.
- 4.5.32 Interpret & integrate the laboratory diagnosis and treatment measures
- 4.5.33 Integrate basic information about classification, taxonomy of parasites and how to differentiate between different classes.
- 4.5.34 Recognize the scope and limits of their role as students and respect time factor and dates.
- 4.5.35 Demonstrate a professional image concerning behavior, dress and speech.
- 4.5.36 Use computer and internet to extract information and knowledge
- 4.5.37 Manage time and resources effectively and set priorities.



<p>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.</p>	<p>4.7.1 Describe the general principles of drugs and mode of action and recall the rational approach to drug therapy.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>4.7.5 Perform self learning and show a strong commitment to it.</p> <p>4.7.6 Evaluate his own and others work through construction feedback</p> <p>4.7.7 Effectively manage time and resources and set priorities.</p>
<p>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.</p>	<p>4.8.1 Apply the rules of laboratory ethics and safety measures while in the lab or in the museum.</p> <p>4.8.2 Use the light microscope to examine and identify microscopic findings of some selected examples of studied diseases.</p> <p>4.8.3 Perform experiments to identify the site of action of unknown drugs according to laboratory experiments.</p>



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



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

Module LOs	
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		
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



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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 (scabies, house dust mites, trombicula akamushi, demodex)	1.5	Parasitology
Cases	1.5	Parasitology
Revision	1.5	Parasitology
Inflammation 1	1.5	Pathology
Inflammation 2	0.75	Pathology
Repair 1	1.5	Pathology
Repair 2	1.5	Pathology
Cellular response to injury 1	1.5	Pathology
Cellular response to injury 2	1.5	Pathology
Disturbance of growth	1.5	Pathology
Benign tumors	1.5	Pathology
Benign tumors	1.5	Pathology
Revision 1	1.5	Pathology
Revision 2	1.5	Pathology
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

4. Self-directed Learning

V- Student Assessment:

A. Attendance criteria:

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

B. Types of Assessment:

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

C- Summative Assessment methods:

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

D- Weighing of Assessment:

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

Microbiology:

- Review of medical microbiology and immunology, 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.



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

Module Coordinator:

Name: Dr. Hend Kasem

Program Coordinator:

Prof. Dr. Zeinab Kasemy

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,	<p>3.1.1 Exhibits a courteous and competent image of themselves.</p> <p>3.1.2 Exhibit honesty, integrity, dedication, compassion, and respect when interacting with a patient,</p> <p>3.1.3 complete clinical, administrative, and curriculum activities on time.</p>

	commitment, compassion, and respect.	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	Recognize the importance of cultural diversity.
		3.3.2	Show consideration for the variety of the community as it is shown in the case vignettes.
		3.3.3	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	Explain immoral actions that could jeopardise patient safety.
		3.9.2	Defines the proper channels for reporting dishonest or immoral behaviour.
		3.9.3	Indicates when to report inappropriate, unethical, or unprofessional behaviour in role-played or presented films.
		3.9.4	Demonstrates self-awareness, relationship management, social awareness, and self-management.

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

Key competency		Module LOs	
5.1	Recognize the important role played by other health care professionals in patients' management.	5.1.1	Describe the function of the health care team in managing patients.
		5.1.2	Define the health care team.
		5.1.3	Practice working as a team in role plays tailored to various clinical scenarios.
		5.1.4	Work together with other members of the healthcare team
		5.1.5	Demonstrate respect to other healthcare professionals.
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	Specify the roles that the health care team shares and overlaps in order to manage patients effectively.
		5.2.2	Define each member of the health care team's role in the decision-making process.
		5.2.3	Work on making decisions collaboratively in simulated scenarios involving various clinical presentations.

		5.2.4 Work together with other members of the healthcare team.
		5.2.5 Treat every member of the medical team with dignity.
		5.2.6 Observe other colleagues' professionalism.
5.3	Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.	<p>5.3.1 Define various reasons why conflicts arise in health team work;</p> <p>5.3.2 List various approaches to managing conflicts in the delivery of healthcare;</p> <p>5.3.3 Engage in role-playing exercises to practice conflict resolution;</p> <p>5.3.4 Effectively communicate with coworkers to resolve disputes and get past disagreements;</p> <p>5.3.5 Demonstrate acceptance to the resolution of the conflict in the interest of cooperative teamwork and patient care.</p>
5.5	Communicate effectively using written health records, electronic medical records, or other digital technology.	<p>5.5.1 Enumerate the parts of a medical record.</p> <p>5.5.2 List the various forms of health records and discuss their advantages and disadvantages.</p> <p>5.5.3 Enumerate the benefits of digital technology for health information.</p> <p>5.5.4 Develop your written health record writing skills</p> <p>5.5.5 Effectively critique the electronic data recording system.</p> <p>5.5.6 Be truthful and precise when logging and displaying medical information.</p> <p>5.5.7 Value utilising medical records when speaking with patients</p>

III- Module Contents:

	Theoretical Title	Teaching hours
1	Introduction to Communication skills first impression dealing and respect	1.5
2	Introduction to Communication skills first impression 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, each group once /week using audiovisual aids and interaction.
- PowerPoint Presentations: at lectures.
- Role Play

V- Student Assessment:

A. ATTENDANCE CRITERIA:

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

B. Summative Assessment methods:

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

C. Weighing of Assessment:

Method of Assessment	Marks	Percentage
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 بكلية

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 مصر العربية
- 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 lumbar, 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.

		<p>4.1.26 Distinguish between an isometric and isotonic contraction.</p> <p>4.1.27 Discriminate smooth muscle contraction from skeletal muscle contraction</p> <p>4.1.28 Relate the nerve and vessels to the bone.</p> <p>4.1.29 Apply the principles of continuous medical education (CME).</p> <p>4.1.30 Use the internet and learn searching skills.</p>
4.2	Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.	<p>4.2.1 Illustrate the biochemical composition of connective tissue, muscles, bone, collagen, and extracellular matrix.</p> <p>4.2.2 Explain the role of calcium, phosphorus and magnesium in bone mineralization.</p> <p>4.2.3 Identify sources and fate of energy needed for muscle contraction.</p> <p>4.2.4 Correlate the equilibrium potential of ions to Resting membrane potential and action potential.</p> <p>4.2.5 Explain the mechanism of impulse transmission in excitable membranes and at the neuromuscular junction.</p> <p>4.2.6 Establish a concise activity according to standard scientific thinking and integrity.</p>
4.5	Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1 Report diseases related to defective calcium, phosphorus metabolism and collagen synthesis.</p> <p>4.5.2 Describe diseases related to defects in collagen syntheses, muscles, and bone.</p> <p>4.5.3 Effectively manage time and resources and set priorities.</p> <p>4.5.4 Recognize the deformity associated with disc prolapse, joint dislocation, and different bone fractures and factors affecting, stages and complications of bone healing.</p> <p>4.5.5 Recognize the features (demographic, radiologic, and pathological) of most common benign, locally malignant, and malignant bone tumors.</p> <p>4.5.6 Recognize the general basis of osteopenic diseases including rickets, osteomalacia and osteoporosis.</p> <p>4.5.7 Identify the pathogenesis of most common inflammatory diseases affecting</p>

		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.	<p>4.6.1. Recognize the effect of peripheral nerve injuries in the movements (deformity) and sensation of the upper limb.</p> <p>1.6.2 Evaluate his own and others' work through construction feedback.</p> <p>1.6.3 Solve problems through case studies of certain musculoskeletal system diseases.</p>
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.	<p>1.8.1 Interpret symptoms, signs, and biochemical laboratory findings of some mineral and nutritional deficiency diseases.</p> <p>1.8.2 Apply the method to test the joint function.</p> <p>1.8.3 Apply the method to test the nerve injury.</p> <p>1.8.4 Draw and label the structures they have seen under a light microscope showing bone tissue during practical classes.</p> <p>1.8.5 Examine and identify microscopic slides of bone tissue</p> <p>1.8.6 Recognize biochemical instruments used to measure blood calcium, phosphorus and magnesium.</p> <p>1.8.7 Practice measurement of serum protein and creatinine.</p> <p>1.8.8 Interpret the results variation of calcium, phosphorus and magnesium and their relation to different diseases</p> <p>1.8.9 Identify dissected structures of the upper limb, thorax and abdomen, according to the present relations.</p> <p>1.8.10 Distinguish the consistency of arteries, veins & nerves.</p> <p>1.8.11 Draw diagrams showing the courses and distribution of nerves and main blood vessels in the upper limb.</p>

		<p>1.8.12 Draw and label the structures they have seen under a light microscope showing muscular and nervous tissue during practical classes.</p> <p>1.8.13 Examine and identify microscopic slides of muscular and nervous tissue</p> <p>1.8.14 Differentiate between types of different musculoskeletal tissues and organs in histological slides.</p> <p>1.8.15 Sketch simple muscle twitch and explain the cause of each phase.</p> <p>1.8.16 Communicate effectively and respectfully with staff members.</p> <p>1.8.17 Manage time efficiently and work in a group.</p>
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Competency Area 5: The graduate as a member of the health team and part of the health care system.

Key competency		Module LOs
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.	<p>5.2.3 Demonstrate respect towards colleagues.</p> <p>5.2.4 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.3 Formulate a learning plan for the module in focus.</p> <p>6.2.4 Apply the learning plan respecting emerging priorities and encounters</p>
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
Lumbar 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- Summative Assessment methods:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
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 Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.30	x	x		x	x		x		x	x	x

4.2	4.2.1, 4.2.6	x	x		x	x		x		x	x	x
4.5	4.5.1 to 4.5.7	x	x		x	x		x		x	x	x
4.6	4.6.1 to 4.6.3	x	x		x	x		x		x	x	x
4.8	4.8.1 to 4.8.17			x			x		x	x		x
5.2	5.2.1, 5.2.2	x	x	x						x		x
6.2	6.2.1, 6.2.2				x	x	x	x	x	x	x	x
6.3	6.3.1				x	x	x	x	x	x	x	x
6.6	6.6.1, 6.6.2				x	x	x	x	x	x	x	x

Module Coordinator:

Name: Dr. Sara Gamal Abdelkawy

Program Coordinator:

Name: Prof. Dr. Zeinab Kasemy

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.	<p>3.1.3 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.4 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

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

		<p>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.</p> <p>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.</p> <p>4.1.11. Apply the anatomical facts while examining the living subject in order to reach a proper diagnosis.</p> <p>4.1.12. Correlate the structure with the function of cardiac muscle and blood vessels</p> <p>4.1.13. Interpret the light microscopic appearance of normal cells of cardiac muscle and blood vessels</p> <p>4.1.14. Conclude the normal structure of histological slide.</p> <p>4.1.15. Construct structures that could be present in a cell from its function</p> <p>4.1.16. Relate the composition of each tissue type to its specific functions.</p> <p>4.1.17. Distinguish a physiological from pathological condition.</p> <p>4.1.18. Integrate physiology of CVS with other basic and clinical sciences.</p>
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).	<p>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.</p> <p>4.5.2. Determine the fate and complications of rheumatic fever, endocarditis, pericarditis, cardiomyopathy, atherosclerosis, hypertension, thrombosis, myocardial infarction, ischemic coronary diseases.</p> <p>4.5.3. Predict the diagnosis of different diseases based on the underlying gross and microscopic pictures.</p>
4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. 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.</p>

- 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.

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| <p>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.</p> | <p>4.8.1. Name the parts of a typical bipolar (Lead II) ECG tracing and explain the relationship between each of the waves, intervals, and segments in relation to the electrical state of the heart.</p> <p>4.8.2. Integrate basic anatomical, histopathological, and physiological aspects of heart & blood vessels with clinical data.</p> <p>4.8.3. Expect the outcome of disturbed function.</p> <p>4.8.4. Solve problems through case study</p> <p>4.8.5. Interpret the results of practical lab.</p> <p>4.8.6. Sketch a typical action potential in a ventricular muscle and a pacemaker cell. Describe how ionic currents contribute to the four phases of the cardiac action potential. Use this information to explain differences in shapes of the action potentials of different cardiac cells</p> <p>4.8.7. Draw, in correct temporal relationship, the pressure, volume, heart sound, and ECG changes in the cardiac cycle</p> <p>4.8.8. Practice basic practical skills and competencies essential for future medical practice.</p> <p>4.8.9. Demonstration of the external and internal features of the heart chambers, blood vessels of the heart, related vessels to the heart & vessels of upper & lower limbs</p> <p>4.8.10. Use the microscope efficiently to obtain information from histological slides</p> <p>4.8.11. Examine the histological glass slides & differentiate between types of cells and tissues in histological slides.</p> <p>4.8.12. Draw and label the structures they have seen in electron photomicrographs and under light microscope during practical classes.</p> <p>4.8.13. Perform the measurement of arterial blood pressure.</p> <p>4.8.14. Manipulate a stethoscope for hearing heart and respiratory sounds.</p> <p>4.8.15. Record and read an electrocardiogram.</p> <p>4.8.16. Present physiological scientific data in a graphical form.</p> <p>4.8.17. Comment on some clinical parameters such as: ABP, ECG for a normal individual.</p> <p>4.8.18. Recognize gross and microscopic pictures aiming at reaching the correct diagnosis.</p> <p>4.8.19. Identify an unknown drug by its effect on different types of heart receptors</p> <p>4.8.20. Explain the choices of drugs according to the stage of heart failure, the choices of different antihypertensive drugs in different disease states, the beneficial effects of</p> |
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- 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- Summative Assessment methods:

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

D- Weighing of Assessment:

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

E- Grading for by GPA System:

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

VI. List of references and resources:

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

Anatomy:

- Gray's Anatomy for Students. 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 Lercheffeld and Chris Giordian . Lippincott Williams & Wilkins, 2022.
- Essentials of Medical Pharmacology 8th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2018.

VII- Facilities required for teaching and learning:

1. Lecture halls at the faculty
2. Dissecting room including cadavers, bones, and plastic models
3. Museum specimens
4. Visual aids
5. Labs equipped with microscopes
6. Microscopic slides of demonstration of samples of tissue

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods					Assessment Methods						
		Interactive Lectures	Case Based Learning	Practical sessions	Skill Lab	Self-directed study	Formative Assessment		Summative Assessment				
							Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x							x		x
4.1	4.1.1 to 4.1.17	x	x			x	x		x		x	x	x
4.5	4.5.1 to 4.5.3	x	x			x	x		x		x	x	x
4.6	4.6.1	x	x			x	x		x		x	x	x
4.7	4.7.1 to 4.7.8	x	x			x	x		x		x	x	x

4.8	4.8.1 to 4.8.22			X				X		X	X		X
5.2	5.2.1, 5.2.2	X	X	X							X		X
6.2	6.2.1, 6.2.2					X	X	X	X	X	X	X	X
6.3	6.3.1					X	X	X	X	X	X	X	X
6.6	6.6.1, 6.6.2					X	X	X	X	X	X	X	X

Module Coordinator: Dr. Marwa Adel

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

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 practice, demonstrating honesty, integrity, commitment, compassion, and respect.

- 3.1.1 Define medical professionalism and identify its components (e.g., values, behaviors, relationships).
- 3.1.2 Recall the six main elements of professionalism and their significance in healthcare.
- 3.1.3 Explain the concept of accountability in medical practice and its implications for doctors and society.
- 3.1.4 Apply the principles of professionalism to hypothetical scenarios, distinguishing between desirable and undesirable behaviors.
- 3.1.5 Analyze the consequences of unethical behavior in healthcare, such as the impact of bias or breaches of 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** Practice 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 Identify the significance of teamwork and collaboration in the medical field. 5.2.2 Describe the benefits of effective teamwork for patient care, problem-solving, stress management, and professional development. 5.2.3 Explain the key elements of teamwork in action, including shared goals, clear communication, mutual respect, and trust. 5.2.4 Recognize the roles within a medical team, such as leader, facilitator, note-taker, timekeeper, and participant. 5.2.5 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 Recognize effects of stress on physicians and patients 5.7.2 Identify elements, signs and management of stress 5.7.3 Describe the meaning and importance of time management 5.7.4 Determine strategies of time management 5.7.5 Define work life balance, recognize its importance 5.7.6 Identify challenges facing physicians

III- Module Contents:

week	Title	Teachinghours
1	Introduction to medical professionalism	2
2	Introduction to medical professionalism	1.5
3	Breaking bad news	2

4	Breaking bad news	1.5
5	Self awareness	2
6	Self awareness	2
7	How to set a goal 1	2
8	How to set a goal 2	1.5
9	Teamwork and collaboration	2
10	Teamwork and collaboration	2
11	Sympathy and empathy	2
12	Sympathy and empathy	2
13	Professional boundaries	1.5
14	Professional boundaries	1.5
15	Burnout 1	2
16	Burnout 2	1.5
17	Stress management	1.5
18	Stress management	2
19	Time management	1.5
20	Time management	1.5
21	Work-life balance	2
22	Work-life balance	2
23	Revision	2
24	Activity (virtual jigsaw)	1.5
25	Revision	2
Total hours		45 hour

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
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توصيف مقرر القضايا المجتمعية

البرنامج الذي يتبعه المقرر: جميع البرامج الدراسية بالجامعة

أ معلومات أساسية :

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

<p>1-أهداف المقرر</p>	<p>بدراسة هذا المقرر يتوقع أن يكون الطالب قادراً على :الوعي بمجموعة من القضايا المجتمعية الملحة وأهمها الزيادة السكانية والصحة الإنجابية ، حقوق الانسان ، الشفافية ومكافحة الفساد، التربية الاعلامية ، و التنمية المستدامة و التمييز بين المصطلحات الأكثر شيوعاً في كل قضية ، ومن ثم يمكنه تكوين عادات سلوكية إيجابية ، فضلاً عن تعزيز مفهوم المشاركة المجتمعية لديه ، و تثقيفه بالأخطار التي تحيط بالمجتمع المحلي والإقليمي والعالمي .كما يتيح المقرر ربط الجانب الأكاديمي الذي يدرسه الطالب بمتطلبات واحتياجات مجتمعية بما يساهم في تدريب الطلاب على التعلم الذاتي الذي ينمي القدرة على التعلم مدى الحياة و تنمية الجوانب الوجدانية عند الطلاب، تطوير المحتوى العلمي للمقرر ، ودعم بناء منظومة القيم عند الطلاب.</p>
<p>2-المخرجات التعليمية المستهدفة من تدريس المقرر:</p>	
<p>أ-المعلومات والمفاهيم</p>	<ol style="list-style-type: none"> 1. يعرف الزيادة السكانية 2. يحددأبعاد المشكلة السكانية في مصر. 3. يشرح المشكلات المترتبة على الزيادة السكانية 4. يعرف الصحة الإنجابية 5. يحدد خدمات ووسائل تنظيم الأسرة. 6. يعرف حقوق الإنسان 7. يذكر مصادر حقوق 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.

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

3-محتوى المقرر

الفصل الأول: المشكلات المترتبة على الزيادة السكانية وأثرها على الصحة الإيجابية

أولاً: أبعاد المشكلة السكانية في مصر.

ثانياً: المشكلات المترتبة على الزيادة السكانية ثالثاً: مفهوم الصحة الإيجابية

رابعاً: الفئات التي تستهدفها خدمات الصحة الإيجابية

خامساً: خدمات ووسائل تنظيم الأسرة.

سادساً: وسائل الصحة الإيجابية

أنشطة الفصل الأول

أسئلة وإجابات الفصل الأول.

الفصل الثاني: حقوق الإنسان

أولاً: تعريف حقوق الإنسان.

ثانياً: خصائص حقوق الإنسان

ثالثاً: مصادر حقوق الإنسان

رابعاً: أنواع حقوق الإنسان.

أنشطة الفصل الثاني

أسئلة وإجابات الفصل الثاني .

الفصل الثالث: الشفافية ومكافحة الفساد

مقدمة

أولاً: الشفافية والنزاهة

ثانياً: الفساد

ثالثاً: أنواع الفساد. الفصل الثالث: الشفافية ومكافحة الفساد

رابعاً: وسائل مكافحة الفساد

أنشطة الفصل الثالث

أسئلة وإجابات الفصل الثالث

الفصل الرابع: التربية الإعلامية الرقمية

أولاً: مفهوم التربية الإعلامية

ثانياً: المهارات المكتسبة من التربية الإعلامية

ثالثاً: أهداف التربية الإعلامية.

<p>الفصل الرابع: التربية الإعلامية الرقمية</p> <p>رابعا: التفكير التحليلي فى منهج التربية الإعلامية</p> <p>خامسا: التفكير النقدي فى منهج التربية الإعلامية</p> <p>سادسا: الاعلام الرقمي والتربية الإعلامية.</p> <p>الفصل الرابع: التربية الإعلامية الرقمية</p> <p>سابعا:حروب الجيل الرابع والتربية الإعلامية</p> <p>ثامنا:الشائعات والوعى بالمواجهة وفق منهج التربية الإعلامية</p> <p>أنشطة الفصل الرابع.</p> <p>أسئلة وإجابات الفصل الرابع</p> <p>الفصل الخامس التنمية المستدامة</p> <p>مقدمة</p> <p>أولاً: أهداف التنمية المستدامة</p> <p>ثانيا: أهمية التنمية المستدامة</p> <p>ثالثاً:المبادئ الأساسية للتنمية المستدامة.</p> <p>رابعا: أبعاد التنمية المستدامة</p> <p>خامساً: المجالات المستهدفة بالتنمية المستدامة</p> <p>سادساً: مكونات وأنماط الاستدامة</p> <p>سابعا: تحديات التنمية المستدامة.</p> <p>ثامنا: متطلبات التنمية المستدامة.</p> <p>أنشطة الفصل الخامس</p> <p>أسئلة وإجابات الفصل الخامس.</p>	
<p>أ-المحاضرات ب-المناقشات. ج-الفيديوهات التعليمية</p>	<p>4-أساليب التدريس والتعلم</p>
<ul style="list-style-type: none"> • محاضرات إضافية • إتاحة فرصة أوسع للنقاش أثناء الساعات المكتبية • أنشطة إثرائية 	<p>5- أساليب التدريس والتعلم للطلاب</p> <p>ذوى القدرات المحدودة</p>
<p>6-تقييم الطلاب</p>	

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

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.	<p>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.</p> <p>4.2.2 Draw curves of the different lung volumes & capacities and list different conditions leading to respiratory distress syndrome.</p> <p>4.2.3 Describe gas exchange and ventilation-perfusion relationship.</p> <p>4.2.4 Identify the regions in the central nervous system in the generation and control of cyclic breathing.</p> <p>4.2.5 Define and point out oxido-reductases enzymes and components of respiratory chain.</p> <p>4.2.6 Define pH, buffers, anion gap and paradoxical alkalosis</p>
4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	4.5.1 Recognize different respiratory disorders and different types of hypoxias, dyspnea and cyanosis.

- | | |
|--|---|
| <p>4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.</p> | <p>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).</p> <p>4.6.2 Describe the characteristic gross and microscopic pictures of different pathologic lesions within respiratory system and the associated functional disturbances.</p> <p>4.6.3 Determine the fate and complications of different disease processes.</p> <p>4.6.4 Identify normal flora and immunity of respiratory tract</p> <p>4.6.5 Identify the most important micro-organisms causing Upper and lower respiratory tract infections</p> <p>4.6.6 Identify the life cycles and pathogenesis of parasites and arthropods that can affect the respiratory system.</p> <p>4.6.7 Recognize morphology, clinical presentations, complications, diagnosis, treatment and control of parasites and arthropods that can affect the respiratory system.</p> |
| <p>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.</p> | <p>4.7.1 Identify the major groups (Antihistaminic, bronchodilators chemotherapy) involved in management of respiratory diseases. including bronchial asthma, TB and chest infections.</p> <p>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</p> |

- 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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.1 Formulate a learning plan for the module in focus.</p> <p>6.2.2 Apply the learning plan respecting emerging priorities and encounters</p>
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
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	1.5	biochemistry
Lipogenesis		
Lipogenesis(continued)	1.5	biochemistry
Oxidation of fatty acids		
Eicosanoids	1.5	biochemistry
Ketone body metabolism		
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 diphteriae	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 bronchiectasis	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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- Summative Assessment Methods:

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

D- Weighing of Assessment:

Method of Assessment	Marks	Percentage
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 Lercheffeld and Chris Giordian . Lippincott Williams & Wilkins, 2022.

- Essentials of Medical Pharmacology 8th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2018.

Microbiology:

- Review of medical microbiology and immunology, 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Skill Lab	Self-directed study	Formative Assessment		Summative Assessment				
							Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x							x		x
4.1	4.1.1 to 4.1.8	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,	x	x	x							x		x

	5.2.2													
6.2	6.2.1, 6.2.2					X	X	X	X	X	X	X	X	X
6.3	6.3.1					X	X	X	X	X	X	X	X	X
6.6	6.6.1, 6.6.2					X	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.	<p>3.1.1 Demonstrate a professional. respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Describe surfaces and relation of spleen, tonsils and lymph nodes groups in head and neck, inguinal and axillary region.</p> <p>4.1.2. Describe cisterna chyli, thoracic duct and right lymphatic duct</p> <p>4.1.3. Distinguish histological structural features of lymphatic organs and cell types present in each organ and relate the structure to organs' function.</p> <p>4.1.4. Compare between different blood elements and their development.</p> <p>4.1.5. Discuss the function of the blood and plasma protein.</p> <p>4.1.6. Discuss the principles of blood coagulation.</p> <p>4.1.7. Recognize the function of RBCs and different types of anemia.</p>

		<p>4.1.8. Identify components of immune system, different types of antigens and different mechanisms of antigen antibody reaction.</p> <p>4.1.9. Explain the difference between innate and acquired immunity.</p> <p>4.1.10. Integrate basic anatomical, histopathological and physiological aspects of blood and lymphatic system with clinical data</p> <p>4.1.11. Analyze the anatomical facts while examining the living subject in order to reach a proper diagnosis.</p> <p>4.1.12. Relate the composition of each organ histological structure to its specific functions.</p> <p>4.1.13. Evaluate the activities and properties of living cells based on the observation of fixed specimens.</p>
4.2	Explain the molecular, and cellular mechanisms that are important in maintaining the body's homeostasis.	<p>4.2.1. Identify components of immune system, different types of antigens and different mechanisms of antigen antibody reaction.</p> <p>4.2.2. Describe the metabolism of hemoglobin.</p> <p>4.2.3. Identify the types, functions white blood cells.</p> <p>4.2.4. Interpret the light microscopic appearance of normal cells, tissues and organs.</p>
4.5	Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).	<p>4.5.1. Discuss blood coagulation disorders and predict the hazards of incompatible blood transfusion.</p> <p>4.5.2. Identify structure and function of lymphatic system and Recognize factors affecting lymph flow.</p> <p>4.5.3. Describe causes, complications and diagnosis of septicemia and bacteremia.</p> <p>4.5.4. Define immune-prophylaxis and different types of vaccines.</p> <p>4.5.5. Identify the basics of different types of tissue damage, autoimmune diseases and immunological aspects of tumors.</p> <p>4.5.6. Describe the life cycles and pathogenesis of schistosomiasis, lymphatic filariasis, Leishmaniasis and Malaria.</p>

	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.	<p>4.6.1. Identify the changes in white blood cells.</p> <p>4.6.2. Identify the most common types of nutritional anemias and their treatment.</p> <p>4.6.3. Describe the related metabolic disorders of hemoglobin.</p> <p>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.</p> <p>4.6.5. Determine the fate & complications of blood and lymphatics diseases.</p> <p>4.6.6. Compare between different types of thrombi, emboli and lymphomas.</p> <p>4.6.7. Recognize clinical presentations, complications and diagnosis of schistosomiasis,, lymphatic filariasis, leishmaniasis and Malaria.</p> <p>4.6.8. Determine different types of anemia.</p> <p>4.6.9. Interpret symptoms, signs and biochemical laboratory findings of some hemoglobinopathy.</p> <p>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.</p> <p>4.6.11. Integrate basic information about life cycles of schistosomiasis, lymphatic filariasis, leishmaniasis and malaria, clinical picture and complications for diagnosis.</p> <p>4.6.12. Manage time efficiently and work in group.</p>

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|--|--|
| <p>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.</p> | <p>4.7.1. Identify the three major groups (antiplatelet, anticoagulants and fibrinolytics) involved in management of thrombotic diseases.</p> <p>4.7.2. List drugs used in excessive bleeding.</p> <p>4.7.3. Select the appropriate anti-anemic, anticoagulant, coagulant, Antiplatelet, Fibrinolytics and antifibrinolytics drugs for suitable patient.</p> <p>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.</p> |
| <p>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.</p> | <p>4.8.1. Interpret complete blood picture.</p> <p>4.8.2. Interpret immunological and molecular laboratory test reports</p> <p>4.8.3. Identify the normal structure of any given histological slide.</p> <p>4.8.4. Categorize and compose a pathology report.</p> <p>4.8.5. Draw diagrams showing different lymph node groups.</p> <p>4.8.6. Identify radiologically the spleen, different tonsils and lymph nodes.</p> <p>4.8.7. Differentiate between types of tissues and organs in histological slides.</p> <p>4.8.8. Draw and label the structures they have seen under light microscope during practical classes.</p> <p>4.8.9. Identify different types of blood samples</p> <p>4.8.10. Identify different types of instruments used in different biochemical assays</p> <p>4.8.11. Examine and identify gross and microscopic findings of blood, spleen and lymphatics diseases</p> <p>4.8.12. Identify the light microscopic appearance of RS cells, in Hodgkin's lymphoma.</p> <p>4.8.13. Diagram steps of platelet aggregation and show site of their action of different antiplatelet drugs.</p> <p>4.8.14. Demonstrate procedure of haematocrit, haemoglobin and ESR measurement.</p> |

- 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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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, Wuchereria 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- Summative Assessment Methods and Schedule:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		10% Participation in the tutorials, TBL, Research.	During the module
Final practical exam	30%	OSPE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, give a reason, 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 Lercheffeld 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.13	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.	<p>1.1.1. Take good history about different emotional symptom according to their age group.</p> <p>1.1.2. Take good history about different thinking symptom according to their age group.</p> <p>1.1.3. Take a good history about different cognitive signs.</p>
1.2	Adopt an empathic and holistic approach to the patients and their problems.	<p>1.2.1. Demonstrate empathy in patient counseling.</p> <p>1.2.2. Communicate effectively with patients regardless of their social, cultural backgrounds or their disabilities.</p> <p>1.2.3. Apply the ethics of medical practice when dealing with patients and colleagues.</p> <p>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.</p> <p>1.2.5. Identify the approach for management of difficult communication including</p>
1.3	Assess the mental state of the patient.	<p>1.3.1. Perform correct clinical assessment of normal and abnormal continuum.</p> <p>1.3.2. Perform correct clinical examination for cognition</p> <p>1.3.3. Perform correct clinical examination for behavior.</p>

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

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

	<p>1.8.10. Discuss the neural correlate of emotion and affect .</p> <p>1.8.11. Identify etiology, pathogenesis, clinical manifestations of different emotions</p> <p>1.8.12. Differentiate between normal euthymic emotion and abnormal emotions.</p> <p>1.8.13. Explain etiology, clinical manifestations of different emotional diseases.</p> <p>1.8.14. Outline the definitions of euthymic normal emotion and definition of different abnormal emotions .</p> <p>1.8.15. Describe the etiology, clinical manifestations of different abnormal emotion</p> <p>1.8.16. Identify the assessment and investigation of each abnormal emotion</p> <p>1.8.17. Recognize clinical importance of thought</p> <p>1.8.18. Identify classification of thought disorders</p> <p>1.8.19. Identify the difference between normal and abnormal thinking.</p> <p>1.8.20. Describe the health services for awareness of the different groups of the population with normality and abnormality of thinking.</p> <p>1.8.21. Identify the social health services for improving population awareness .</p> <p>1.8.22. Identify common cognitive problems among different age groups.</p> <p>1.8.23. Identify component of cognitive examinations</p> <p>1.8.24. Recognize importance memory, attention , and exucative functions in healthy study.</p> <p>1.8.25. List components and definitions of each cognitive function .</p> <p>1.8.26. Recognize the importance of periodic cognitive examination for early detection of diseases and prevention.</p> <p>1.8.27. Identify common cognitive problems among different age groups.</p> <p>1.8.28. List steps for proper cognitive examination</p> <p>1.8.29. Identify component of psychological testing of intelligence.</p>
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		<p>1.8.30. Recognize the role of psychiatrists in prevention and management of memory and executive problems in children , adolescents, and geriatric</p> <p>1.8.31. Outline the definitions of different cognitive distortion.</p> <p>1.8.32. Outline the classifications of different defense mechanism.</p> <p>1.8.33. Recognize clinical importance of detecting cognitive distortion and it's implication in preventing psychiatric diseases as a risk factors of them</p> <p>1.8.34. Identify the difference between healthy and unhealthy defense mechanisms</p> <p>1.8.35. Describe the health services for awareness of the different groups of the population with normality and abnormality of behavior</p> <p>1.8.36. Identify the social health services for improving population awareness with cognitive distortions to improve quality of life and Improve economic outcomes.</p>
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.	<p>1.13.1. Retrieve information and be able to use the recent evidence based information and communications technologies</p> <p>1.13.2. Apply continuous medical education and research to keep up-to-date with the international advancement in medicine and surgery.</p> <p>1.13.3. Use of information technology to improve the quality of patient care through proper.</p> <p>1.13.4. Share patients or their caregivers in decision making regarding management plans.</p> <p>1.13.5. Gather and organize material from various sources (including library, electronic and online resources).</p> <p>1.13.6. Apply the principles of using international guidelines and multidisciplinary team MDT.</p> <p>1.13.7. Apply basics of scientific research (collection, analysis and interpretation of data).</p> <p>1.13.8. Apply critical appraisal skills and use of evidence-based guidelines in making decisions about the care of patients</p>

	<p>1.13.9. Apply Cognitive behavioral program on different psychological problems.</p> <p>1.13.10. Conduct counselling session with a normal population.</p> <p>1.13.11. Diagnose and manage common health problems among different age groups.</p> <p>1.13.12. Practice health maintenance and disease prevention for different age group.</p> <p>1.13.13. Formulate the way of management of cognitive part of cognitive behavioral therapy</p> <p>1.13.14. Formulate the way of management of behavioral part of cognitive.</p> <p>1.13.15. Formulate cognitive treatment of a depressed patient by cognitive behavioral therapy</p> <p>1.13.16. Formulate behavioral treatment of a depressed patient by cognitive behavioral therapy</p> <p>1.13.17. Formulate the management of memory</p> <p>1.13.18. Interpret investigations of attention</p> <p>1.13.19. Formulate management of Working memory</p> <p>1.13.20. Formulate psychosocial ,cognitive ,moral development counseling</p> <p>1.13.21. Design health educational messages for different age groups.</p> <p>1.13.22. Choose the appropriate screening test for each age group.</p> <p>1.13.23. .Organize for a cognitive behavioral therapy sessions .</p> <p>1.13.24. Correlate between age and need of screening psychosocial ,cognitive ,moral among different age group.</p>
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Competency Area 3: The graduate as a professional.

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

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.	<p>4.4.1. Define psychosocial, cognitive ,emotional and moral development in different stages of growth in children ,adolescent ,adult and geriatric</p> <p>4.4.2. Describe different characteristics of development at its four fields (psychosocial, cognitive ,emotional and moral development).</p> <p>4.4.3. Outline eight stages of psychosocial development and the four stages of cognitive development</p>

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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 either 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
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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- SUMMATIVE ASSESSMENT METHODS 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, give reason, 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							
		Recorded Lecture	Inverted Lectures	Case Based Learning	Clinical Rounds	Self-directed study	Formative Assessment		Summative Assessment					
							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	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	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	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	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.	<p>4.4.4. Define psychosocial, cognitive ,emotional and moral development in different stages of growth in children ,adolescent ,adult and geriatric</p> <p>4.4.5. Describe different characteristics of development at its four fields (psychosocial, cognitive ,emotional and moral development).</p> <p>4.4.6. Outline eight stages of psychosocial development and the four stages of cognitive development</p>

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.	<p>5.2.3 Demonstrate respect towards colleagues.</p> <p>5.2.4 Apply teamwork in educational and professional encounters</p>

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 Manage time and learning resources effectively. 6.6.4 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

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

VI. List of references and resources:

- Lecture Notes.
- 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. Szilagy. 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						
		Clinical Rounds	Skill Lab	Formative Assessment		Summative Assessment				
				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, normal and abnormal microscopic structures, functions, disease patterns 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 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.	<p>4.1.1. Describe the anatomy of gastrointestinal tract, liver, and pancreas.</p> <p>4.1.2. Describe the vasculatures of gastrointestinal tract and previous mentioned related organs.</p> <p>4.1.3. Identify the course, important relations, distribution and effect of injury of gastrointestinal blood vessels and biliary system.</p> <p>4.1.4. Recognize the anatomical basis of gastro-oesophageal reflux disease, appendicitis, cholecystitis, pancreatitis, and portal hypertension.</p> <p>4.1.5. Describe the normal development of gastrointestinal tract and its related organs and their congenital anomalies.</p> <p>4.1.6. Describe the basic histological structure of different parts of GIT.</p> <p>4.1.7. Distinguish structural features of organs, regions and cell types present in each part of GIT system.</p> <p>4.1.8. Identify the normal histological structure of various glands associated with GIT.</p> <p>4.1.9. Describe the mechanism of formation of the salivary secretion.</p> <p>4.1.10. Explain the differences in types of salivary secretion and function.</p> <p>4.1.11. Outline the phases of swallowing.</p> <p>4.1.12. Describe the process of gastric secretion, function of HCL, and gastric movement</p> <p>4.1.13. Identify the function, types, and control of secretion of pancreas.</p> <p>4.1.14. Describe the various composition of biliary secretion and function of gall bladder</p> <p>4.1.15. Name different types of jaundice and their manifestation</p> <p>4.1.16. Recognize the concept of intestinal absorption, intestinal motility and defecation reflex.</p> <p>4.1.17. Relate the anatomical knowledge with clinical signs seen in cases of portal hypertension.</p> <p>4.1.18. Correlate the blood supply of some organs and their structure and specialized functions.</p> <p>4.1.19. Illustrate the functional anatomy, the enteric nervous system and innervation of the GIT.</p> <p>4.1.20. Illustrate the course of common bile duct in relation to the surrounding structure.</p>

	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).	<p>4.5.1. Explain different gastrointestinal disease processes, their causes (etiology), and how the disease develops in response to the etiologic agents (pathogenesis).</p> <p>4.5.2. Determine the fate and complications of different GIT disease processes.</p> <p>4.5.3. Describe various aspects of parasites of medical importance concerning its geographical distribution, morphology and life cycles.</p> <p>4.5.4. Mention the clinical presentations and complications of GIT parasitic diseases.</p> <p>4.5.5. Determine the methods used for prevention and control of the most common parasites in the community.</p> <p>4.5.6. Describe the common arthropods of medical interest and explain their medical importance and the methods of combating.</p> <p>4.5.7. Identify common microbial infections of the gastrointestinal tract, their spread, pathogenesis, fate, and complications.</p>
4.6 Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. Describe and discuss characteristic gross and microscopic pictures of different pathologic lesions within the GIT specific organ systems and the associated functional disturbances.</p> <p>4.6.2. Solve problems through case study of certain GIT diseases.</p> <p>4.6.3. Integrate basic anatomical, biochemical, histopathological, and physiological facts with clinical data.</p>

- | | |
|--|---|
| <p>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.</p> | <p>4.7.1. Outline the lines of treatment of peptic ulcer.</p> <p>4.7.2. Determine the effective therapeutic drugs and its doses in treating each parasitic infection.</p> <p>4.7.3. Explain mechanism of action of drugs used in treatment of GIT diseases.</p> <p>4.7.4. Describe pharmacological actions, therapeutic uses, side effects and drug interactions of some drugs used in the treatment of GIT diseases.</p> <p>4.7.5. Outline the lines of treatment of GERD and drugs used as antiemetics.</p> <p>4.7.6. Outline the treatment lines for peptic ulcer, diarrhea, gall stones cases and outline treatment.</p> |
| <p>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.</p> | <p>4.8.1. Examine the different regions of the abdomen.</p> <p>4.8.2. Read x- rays and barium to recognize the anatomical landmarks, common diseases related to the gastrointestinal tract.</p> <p>4.8.3. Perform the measurement of gastric motility.</p> <p>4.8.4. Record and read a curve of GIT movement.</p> <p>4.8.5. Comment on some changes such as: amplitude and rate of movement under effect of drug administration.</p> <p>4.8.6. Practice estimation of the level of AST and ALT.</p> <p>4.8.7. Interpret the results of normal and abnormal liver function tests.</p> <p>4.8.8. Examine mounted slides or boxes to identify the most important arthropods of medical interest.</p> <p>4.8.9. Interpret a pathology report of gastrointestinal diseases.</p> <p>4.8.10. Identify some parasites or their stages by naked eyes (Jars).</p> <p>4.8.11. Identify the common micro-organisms of gastrointestinal infections by microscopic examination, culture character, biochemical and serological reactions.</p> <p>4.8.12. Label dissected structures of the gastrointestinal tract according to the present relations.</p> <p>4.8.13. Differentiate between the consistency of arteries, veins & nerves.</p> <p>4.8.14. Draw diagrams showing courses and distribution of main blood vessels related to gastrointestinal tract.</p> <p>4.8.15. Draw diagrams showing different parts of GIT.</p> <p>4.8.16. Identify the different parts and associated glands of GIT system under the microscope.</p> |

- 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	6.6.1 Manage time and learning resources effectively.

Effectively manage learning time and resources and set priorities.

6.6.2 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 esophagus & 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 biliary 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- SUMMATIVE ASSESSMENT METHODS AND SCHEULE:

Assessment Method	Percentage	Description	Timing
Module Coursework	30%	20% written at the end of and periodicals including problem solving, multiple choice questions, give reason, matching, extended matching, complete and compare.	At the end of the module
		10% Participation in the tutorials, TBL, Research.	During the module
Final practical exam	30%	OSPE Exam	At the end of the module
Final Written	40%	It Includes problem-solving, multiple choice questions, give a reason, 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	Symbols	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 Lercheffeld and Chris Giordian . Lippincott Williams & Wilkins, 2022.
- Essentials of Medical Pharmacology 8th Edition. By: Tripathi KD. Jaypee Brothers Medical Pub, 2018.

Microbiology:

- Review of medical microbiology and immunology, 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.22	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 DEPARTMENTS COUNCIL: 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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

Key competency	Module LOs
4.1 Describe the normal structure of the body and its major organ systems and explain their functions.	<p>4.1.1. Recognize the functional basis of the vestibular apparatus and its role in maintaining equilibrium.</p> <p>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.</p> <p>4.1.3. Recognize the location and structure of thermo-receptors.</p> <p>4.1.4. Describe afferent pathways of temperature.</p> <p>4.1.5. Recognize the cutaneous and proprioceptive mechanoreceptors.</p> <p>4.1.6. Identify cutaneous and proprioceptive mechanoreceptors pathways and functions.</p> <p>4.1.7. Recognize the location and structure of pain receptors.</p>

- 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

		<p>4.1.30. Describe the anatomy of the orbit and development of the eye</p> <p>4.1.31. Classify receptors according to their location, function, morphology, and adequate stimulus.</p> <p>4.1.32. Describe the physiology of the optical system of the eye and the mechanism of vision</p> <p>4.1.33. Interpret the anatomical and physiological knowledge with clinical signs seen in cases of Parkinsonism, ataxia, and strokes.</p> <p>4.1.34. Explain and describe the image formation by the eye.</p>
4.6	Describe altered structure and function of the body and its major organ systems that are seen in various diseases and conditions.	<p>4.6.1. Classify disorders of visual acuity</p> <p>4.6.2. Identify different disorders of color vision.</p>
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.	<p>4.8.1. Identify dissected specimens or plastic models of the cerebral cortex, cerebellum, brain stem, and spinal cord.</p> <p>4.8.2. Sketch diagrams for different parts of the central nervous system.</p> <p>4.8.3. Demonstrate testing color vision.</p> <p>4.8.4. Demonstrate uses of ophthalmoscope.</p> <p>4.8.5. Examine the visual field.</p> <p>4.9. Read brain angiography to recognize the anatomical landmarks, common diseases related to the central nervous system.</p>

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.	<p>5.2.1 Demonstrate respect towards colleagues.</p> <p>5.2.2 Apply teamwork in educational and professional encounters</p>

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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

3. Certification of performance

4. Grades

C- Summative Assessment Methods and Schedule:

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

D- Weighing of Assessment:

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

VI. List of references and resources:

- Lecture Notes of Module Departments
- 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
<i>Histology</i>	7.5	7.5	3
<i>Physiology</i>	7.5	7.5	3
<i>Pharmacology</i>	15	15	6
<i>Pathology</i>	7.5	7.5	3
<i>Parasitology</i>	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.	<p>3.1.1 Demonstrate a professional, respectful attitude while dealing with colleagues, and staff members</p> <p>3.1.2 Demonstrate commitment and integrity while preparing the coursework and assignments</p>

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

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 volvulus 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 volvulus and Dracunculus medinensis to different parasitic stages.
- 4.5.18. Describe clinical symptoms and signs of Loa loa, Onchocercus volvulus and Dracunculus medinensis infections.
- 4.5.19. Describe diagnostic methods of Loa loa, Onchocercus volvulus and Dracunculus medinensis infections.
- 4.5.20. Outline treatment of Loa loa, Onchocercus volvulus and Dracunculus medinensis infections.
- 4.5.21. Conclude methods of prevention and control of Loa loa, Onchocercus volvulus 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 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	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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

C- SUMMATIVE ASSESSMENT METHODS AND SCHEDULE:

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

D- Weighing of Assessment:

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

E- Grading by GPA System:

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

VI. List of references and resources:

- Lecture Notes of Module Departments
- 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 Lercheffeld 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						
		Interactive Lectures	Case Based Learning	Practical sessions	Self-directed study	Formative Assessment		Summative Assessment				
						Theoretical	practical	Written	OSPE	Assignments	quizzes	participation
3.1	3.1.1 to 3.1.2	x	x	x						x		x
4.1	4.1.1 to 4.1.14	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



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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.

- | | |
|---|---|
| <p>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.</p> | <p>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.</p> |
|---|---|

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.	<p>4.4.7. Define psychosocial, cognitive ,emotional and moral development in different stages of growth in children ,adolescent ,adult and geriatric</p> <p>4.4.8. Describe different characteristics of development at its four fields (psychosocial, cognitive ,emotional and moral development).</p> <p>4.4.9. Outline eight stages of psychosocial development and the four stages of cognitive development</p>

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.	<p>5.2.5 Demonstrate respect towards colleagues.</p> <p>5.2.6 Apply teamwork in educational and professional encounters</p>

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.	<p>6.2.5 Formulate a learning plan for the module in focus</p> <p>6.2.6 Apply the learning plan respecting emerging priorities and encounters</p>

- | | |
|---|---|
| 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 Manage time and learning resources effectively.
6.6.6 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 to reach that percentage will be prevented from attending the final examination.

B. Types of Assessment:

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

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

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

C- SUMMATIVE ASSESSMENT METHODS 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. Szilagy. Lippincott Williams & Wilkins; 2012

VII- Facilities required for teaching and learning:

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

Key Competencies & Module LOs vs Teaching and Assessment Methods Matrix

Key Competencies	Module Learning Outcomes	Teaching Methods		Assessment Methods						
		Clinical Rounds	Skill Lab	Formative Assessment		Summative Assessment				
				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

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