

نموذج رقم (12)

جامعة: Mansoura

كلية: Nursing

قسم: Community Health Nursing

توصيف مقرر دراسي

1- بيانات المقرر			
1st level of BSc.N Program	الفرقة/المستوى	Microbiology and Immunology	اسم المقرر
			MSc 205
1 credit hour		نظري	عدد الساعات
1 credit hour		عملي	الدراسية
			B.Sc. in Nursing credit hour system
			الرمز الكودى
			التخصص

This course aims to equip nursing students with basic knowledge and skills of microbiology & immunology. Course topics will include the nature and principles of detecting pathogenic microorganisms, namely bacteria, viruses, and fungi, structure and function of microorganisms, host-pathogen interactions, immunological principles, antimicrobial agents and resistance, specimen collection and aseptic technique.	2-هدف المقرر
By the end of the course the candidate will be able to	3-المستهدف من تدريس المقرر:
A.1- Identify the components of the human immune system A.2- Explain the immunological responses to infectious diseases A.3- Describe the mechanisms of human hypersensitivity reactions A.4- Describe the basic properties of pathogenic microorganisms A.5- Identify the major human pathogens including bacteria, viruses, and fungi A.6- Explain basic principles of detection and diagnosis of infections, including specimen collection	أ-المعلومات والمفاهيم

<p>A.7- Identify the various types of bacterial infection</p> <p>A.8- Describe the basics of antimicrobial agents and resistance</p>	
<p>B.1- Correlate according to evidence the causal relationship of the microbes and the diseases</p> <p>B.2- Categorizes types of microorganisms as a bacterium, virus and fungi.</p> <p>B.3- Synthesizes knowledge derived from microbiology course for the development of decision making in practice.</p> <p>B.4- Predict the dangerous of handling and use of infectious agents in health care settings as a part of ethical heritage.</p> <p>B.5- Integrate the results obtained from health assessment and laboratory diagnostic tests to formulate meaningful diagnostic reports</p>	<p>ب-المهارات الذهنية الخاصة بالمقرر</p>
<p>C.1- Uses the prophylactic control and therapeutic measures related to the various microbes.</p> <p>C.2- Examine the human specimen for microbial infection</p> <p>C.3- Practice safety measures when handling infectious materials</p> <p>C.4- Implement standardized guidelines when handling collecting and transporting of specimens for microbiological examination.</p> <p>C.5-Apply the principle of bio-safety measures and aseptic precautions in healthcare settings</p> <p>C.6- Identify the different types of microorganisms by using laboratory techniques</p>	<p>ج-المهارات المهنية الخاصة بالمقرر</p>
<p>D.1- Use appropriate interpersonal communication skills</p>	<p>د-المهارات العامة</p>
<p>E.1- Apply the principles of ethics with laboratory results</p>	
<p>Unit I: Medical microbiology</p> <ul style="list-style-type: none"> • Bacteriology • Virology • Mycology • Types of infections 	<p>4-محتوى المقرر</p>

Unit II: Immunology

- Introduction to immunology
- Types of immunity
- Immune response
- Antigen / Antibody reaction
- Immunoglobulin

Unit III: Specimen collection & aseptic technique

- Safety and General Laboratory Instructions
- Safety measures of handling samples
- Disinfection and Sterilization
- Specific organisms and their identification techniques
- Specimen requirements
- Morphology of bacteria (Simple stain & Gram stain)
- Different types of culture media
- Culture media: growth characteristics and amounts
- Microbiological techniques(inoculation)
- Smear Preparation & Ziehl–Neelsen stain
- Microscopic identification & examinations
- Disc Diffusion Susceptibility Methods
- Antibiotic & culture sensitivity

Unit IV: Applied immunology

- Agglutination Reactions
- Haemagglutination
- Blood Groups
- Cross Matching
- Serial Dilution
- Antiglobulin Test (Coomb test)
- ELISA

1- Interactive Lectures 2- Laboratory training		5-أساليب التعليم والتعلم
Not applicable		6-أساليب التعليم والتعلم للطلاب ذوي القدرات المحدودة
		7-تقويم الطلاب
- Semester summative evaluation: a- Semester practical exam b- Semester written exam 2- Final summative assessment: a- Oral exam b- Final written exam		أ-الأساليب المستخدمة
1- Semester summative assessment		ب-التوقيت
a- Practical exam	7 th week	
b- Semester written exam	7th week	
2- Final summative assessment		
a- Oral exam	15 th week	
b- Final written exam	16 th week	
	Degree	ج-توزيع الدرجات
1-Semester summative assessment	40(20%)	
a- Laboratory performance		
b- Semester written exam	20(10%)	
3- Oral exam	40(20%)	
4- Final written exam	100(50%)	
Total	200(100%)	

8- قائمة الكتب الدراسية والمراجع	
• -----	أ- مذكرات
• -----	ب- كتب ملزمة
<ul style="list-style-type: none"> Hannigan B, Pallister C. Biomedical Science Explained Immunology. UK: Arnold Company, 2000. Spicer W. Clinical Bacteriology, Mycology and parasitology. Eclinburgh: churrchill livingston, 2000. Arora/Arora :Microbiology for Nurses & Allied Sciences, CBS Publishers & Distributors (2007) 	ج- كتب مقترحه
<ul style="list-style-type: none"> http://www1.ethz.ch/microbiol/lectures/Immunology 	د- دوريات علمية أو نشرات .. الخ

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منسق المقرر د/ مني عماد منى عماد	رئيس القسم العلمي أ.د/ سحر سليمان 