



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Promozione della Salute, Materno-Infantile, di Medicina Interna e Specialistica di Eccellenza "G. D'Alessandro"		
ACADEMIC YEAR	2020/2021		
BACHELOR'S DEGREE (BSC)	HEALTHCARE ASSISTANCE		
INTEGRATED COURSE	MICROBIOLOGY AND INFECTIOUS DISEASES - INTEGRATED COURSE		
CODE	15174		
MODULES	Yes		
NUMBER OF MODULES	2		
SCIENTIFIC SECTOR(S)	MED/07, MED/17		
HEAD PROFESSOR(S)	DE GRAZIA SIMONA	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)	DE GRAZIA SIMONA	Professore Ordinario	Univ. di PALERMO
	DI CARLO PAOLA	Professore Associato	Univ. di PALERMO
CREDITS	6		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	1		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<p>DE GRAZIA SIMONA Monday 12:00 13:30 Dpt Scienze per la Promozione della Salute e Materno infantile "G. D'Alessandro" Via del Vespro 133</p> <p>DI CARLO PAOLA Tuesday 12:30 14:30 Day Hospital di Malattie Infettive, sito dietro aula Ascoli Thursday 9:00 12:00 U.O.C. di Malattie infettive</p>		

PREREQUISITES	Basic knowledge on the following disciplines: general and organic chemistry, biochemistry, biology and genetics.
LEARNING OUTCOMES	<p>Knowledge and understanding: At the end of the course of Microbiology and Infectious Diseases, students should acquire:</p> <ul style="list-style-type: none"> - knowledge of the structural and biological characteristics of microorganisms - knowledge of the interactions between microorganism and host - knowledge of the etiopathogenetic mechanisms of infectious diseases (pathways of transmission and pathogenesis of the main infectious diseases) - knowledge of the main diagnostic methods used to identify the microorganism and define the stage of infection; - knowledge of the methods of prevention and treatment of infectious diseases <p>Ability to apply knowledge and understanding, Autonomous judgement: The student must acquire the ability to indicate measures for the control and prevention of infectious diseases through the knowledge acquired during the course of Microbiology and Infectious Diseases but also by the critical analysis of the data available in the international literature and the analysis of case studies.</p> <p>Communication skills: To have the ability to use an appropriate scientific language to present and communicate his/her knowledge.</p> <p>Learning skills: the student should be able to collect, organize and interpret correctly the data available in literature.</p> <p>The acquisition of this knowledge will be verified by final examination.</p>
ASSESSMENT METHODS	<p>Oral exam with evaluation expressed using a 30-point scale.</p> <p>The candidate will have to answer at least four questions posed orally, at least two for each of the two modules, covering the different parts of the program, with reference to the recommended texts.</p> <p>Final assessment aims to evaluate whether the student has knowledge and understanding of the topics, has acquired the skills to interpret the notions and judge independently.</p> <p>The sufficiency threshold will be reached if the student shows knowledge and understanding of the issues at least in broad outline, and has application skills sufficient for solving simple practical cases; he must also have presentation and argumentative skills allowing the transmission of his knowledge to the examiner. Below this threshold, the examination will be insufficient.</p> <p>The more the candidate will be able to interact with the examiner with his argumentative and presentation skills, and the more his knowledge and application capabilities will go into detail on the subjects under evaluation, the more the judgement will be positive, according to the following scheme:</p> <ul style="list-style-type: none"> - ECTS grade: A– A+ Excellent– Italian Grade: 30-30 cum laude Eccellente. <p>Grade descriptors: Excellent knowledge of teaching contents; students should show high analytical and synthetic capabilities and should be able to apply their knowledge to solve highly complex problems.</p> <ul style="list-style-type: none"> - ECTS grade: B Very good – Italian Grade: 27-29 Ottimo. <p>Grade descriptors: Very good knowledge of the teaching contents and excellent language control; students should show analytical and synthetic skills and be able to apply their knowledge to solve problems of medium and, in some cases, even higher complexity.</p> <ul style="list-style-type: none"> - ECTS grade: C Good – Italian Grade: 24-26 Buono. <p>Grade descriptors: Good knowledge of teaching contents and good language control; the students should be able to apply their knowledge to solve problems of medium complexity.</p> <ul style="list-style-type: none"> - ECTS grade: D Satisfactory – Italian Grade: 21-23 Discreto. <p>Grade descriptors: Average knowledge of the teaching contents, in some cases limited to the main topic; acceptable ability to use the specific discipline language and independently apply the acquired knowledge.</p> <ul style="list-style-type: none"> - ECTS grade: E Sufficient – Italian Grade: 18-20 Sufficiente. <p>Grade descriptors: Minimum teaching content knowledge, often limited to the main topic; modest ability to use the subject specific language and independently apply the acquired knowledge.</p> <ul style="list-style-type: none"> - ECTS grade: F Fail – Italian Grade: 1-17 Insufficiente. <p>Grade descriptors: Lack of an acceptable knowledge of the main teaching content knowledge; very little or no ability to use the specific subject language and apply independently the acquired knowledge.</p>
TEACHING METHODS	Lectures using power-point; presentation and discussion of scientific publications

MODULE INFECTIOUS DISEASES

Prof.ssa PAOLA DI CARLO

SUGGESTED BIBLIOGRAPHY

internationale website standardized guidelines ; data and text knowledge provided by the teacher;
S De Grazia, D Ferraro, G Giammanco "MICROBIOLOGIA E MICROBIOLOGIA CLINICA PER LE PROFESSIONI
SANITARIE" - Casa Editrice Pearson, 2017

AMBIT	10362-Scienze medico-chirurgiche
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

LEARNING OBJECTIVES OF MODULE 2 "INFECTIOUS DISEASES"

To know the causes of the main infectious diseases, including emerging and re-emerging diseases, the relationships between microorganism and host and the main means for diagnosing infectious diseases. To identify the places and categories of subjects particularly at risk of contracting infectious diseases. To know and apply principles of infection risk prevention, taking into account ministerial directives and the cost/benefit ratio for the patient. To learn how to use data banks of epidemiological interest and relevant periodic updates. How to learn the ways of relationship with the professional health figures that treat diseases like the family doctor, the pediatrician and the vaccination centers - first words for the infectious counseling

SYLLABUS

Hrs	Frontal teaching
2	Objectives of the discipline and its subdivisions. Principles of pathogenesis, diagnostic and clinical approach to some infectious diseases which impact the workplace and some categories at risk.
2	Principles of infectious disease transmission
3	Tuberculosis: latent infection and disease in different age groups and risk group; diagnosis and prevention
3	HIV infections AND AIDS definition, Diagnostic-therapeutic paths for the prevention and control of HIV infection; sexually-transmitted diseases.
3	Skin rashes Infectious Disease and the healthcare environment in childhood by age and mother - child health care
2	counselling of infectious disease by age and disease
2	Privacy police in infectious diseases by age and cultural habits
3	Food and infection; Food habit and prevention in subjects with different religious and culture
3	TORCH INFECTIONS
2	Emerging infectious diseases: their impact on the workplacement and current regulations regarding prevention in geographic area and in particular settings.
2	Tropical infectious diseases. Migrants, visiting friends and relatives
1	parasitic diseases in different age groups;
2	Guidelines and, therefore, focus on infectious disease outbreaks: WHO, CDC Atlanta, Ministero della Salute and ISS web site

MODULE MICROBIOLOGY

Prof.ssa SIMONA DE GRAZIA

SUGGESTED BIBLIOGRAPHY

- S De Grazia, D Ferraro, G Giammanco "MICROBIOLOGIA E MICROBIOLOGIA CLINICA PER LE PROFESSIONI SANITARIE" - Casa Editrice Pearson, 2017
- M.T. Madigan, J.M. Martinko, D.A. Stahl, K.S. Bender – D.H. Buckley, "BROCK - BIOLOGIA DEI MICRORGANISMI", 14° edizione - Casa Editrice Pearson, 2016
- Tortora GJ, Funke BR, Case CL, "Elementi di microbiologia", Casa Editrice Pearson, 2008

AMBIT	10358-Scienze biomediche
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

To acquire knowledges about:

- the morphological-structural, replicative and pathogenic characteristics of microorganisms.
- the possible interactions between microorganism and host.
- the mechanisms of prevention and control of microbial infections.
- the general principles of microbiological diagnosis.

Demonstrate to be able to correlate the microbiological knowledge to health care

SYLLABUS

Hrs	Frontal teaching
3	Presentation of the course. Introduction to microbiology: the impact of microorganisms on humans and on the environment. The historical roots of microbiology
3	structure of bacterial cell
3	Metabolism of bacteria and methods of cultivation
2	Characteristics of the fungal cell, reproductive mechanisms, and pathogenic role. Main fungal infections of medical interest.
3	Transmission route of microbial infections
3	Characteristics of the main pathogenic bacteria.
3	General characteristics of viruses: biology, structure, replication cycle.
3	Characteristics of the main pathogenic viruses.
4	Antimicrobial agents: general characteristics. Types of vaccines.
3	TORCH agents