



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Biomedicina, Neuroscienze e Diagnostica avanzata		
ACADEMIC YEAR	2016/2017		
BACHELOR'S DEGREE (BSC)	MEDICAL AND IMAGE DIAGNOSTICS AND RADIOTHERAPY TECHNIQUES		
INTEGRATED COURSE	GENERAL PATHOLOGY, HYGIENE AND INDUSTRIAL MEDICINE - INTEGRATED COURSE		
CODE	13588		
MODULES	Yes		
NUMBER OF MODULES	3		
SCIENTIFIC SECTOR(S)	MED/42, MED/44, MED/04		
HEAD PROFESSOR(S)	VITALE FRANCESCO	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)	VITALE FRANCESCO	Professore Ordinario	Univ. di PALERMO
	CACCAMO NADIA	Professore Ordinario	Univ. di PALERMO
	ROSALIA		
	LACCA GUIDO	Ricercatore	Univ. di PALERMO
CREDITS	9		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	1		
TERM (SEMESTER)	2° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<p>CACCAMO NADIA ROSALIA Tuesday 9:00 12:00 Dipartimento Bi.N.D., Corso Tukory 211. Il docente riceve per appuntamento previo contatto per email con un certo anticipo.</p> <p>LACCA GUIDO Monday 11:00 13:00 Dipartimento Promise Istituto di Medicina del Lavoro</p> <p>VITALE FRANCESCO Monday 13:00 14:00 studio sito al primo piano plesso Igiene e Microbiologia - Dipartimento PROMISE, via del Vespro, 133, 90127 Palermo</p>		

PREREQUISITES	General knowledge of anatomy and physiology and the main causes of pathologies
LEARNING OUTCOMES	<p>Knowing the determinants and major health risk factors and disease and the interaction between man and his physical and social environment and work. Knowing the etiology and natural history of acute and chronic diseases and the cognitive tools and the methodological rigor of General Pathology. Understand the epidemiology, health economics and the basics of health management</p> <p>Knowledge and ability to understand Knowing how to properly evaluate the health problems. Know the main determinants of health and disease, such as lifestyle, genetic factors, demographic, environmental, socio-economic, psychological and cultural factors in the overall population; Being aware of the important role of the determinants of health and disease, and capacity to know how to take adequate preventive and protective measures against diseases, injuries and accidents, maintaining and promoting the health of the individual, the family and the community. Knowing how to make proper use of local surveillance data, regional and national, demography and epidemiology in health decisions. Knowing the basics to be able to take correct decisions, when necessary, in the issues related to health care. Graduates will demonstrate knowledge and capacity of understanding to enable it to develop and / or apply the molecular, cellular, biochemical and physiological that keep homeostasis of the organism. Capacity to apply knowledge and understanding Graduates will be able to apply their knowledge, having ability 'understanding and skills' to solve problems in new or unfamiliar, inserted in large and interdisciplinary contexts related to the achievement of excellent capacity 'clinics designed to complexity' of care and health of the population. They must be acquired learning objectives that include capacity 'clinics relating to the implementation of diagnostic procedures and basic techniques, learn to analyze and interpret the results in order to properly define the nature of a problem also know the main determinants of health and of the disease, such as lifestyle, genetic factors, demographic, environmental, socio-economic, psychological and cultural factors in the overall population.</p> <p>Making judgments Acquiring skills' to integrate knowledge and handle complexity, as well as' to make judgments based on incomplete or limited information, but that include reflecting on social and ethical responsibility 'linked to the application of their knowledge and judgments.</p> <p>Enable communication Knowing how to clearly communicate the findings as well as' the knowledge and rationale underpinning these, to specialist and non-specialists.</p> <p>Capacity Learning Being able to collect, organize and interpret correctly the health and biomedical information from different resources and databases available; Knowing how to use the technology associated to information and communications as a right support to diagnostic procedures, therapeutic and preventive and for surveillance and monitoring of the health status.</p>
ASSESSMENT METHODS	oral exams
TEACHING METHODS	frontal lessons

MODULE HYGIENE

Prof. FRANCESCO VITALE

SUGGESTED BIBLIOGRAPHY

Igiene, Epidemiologia ed Organizzazione Sanitaria orientate per problemi
F.Vitale, M.Zagra
Elsevier
Igiene Medicina Preventiva Sanita' Pubblica
W. Ricciardi
Monduzzi Editore, Bologna
Igiene edilizia ed Ambientale
C. Signorelli
Societa' Editrice Universo
Manuale di Programmazione e Organizzazione Sanitaria
Damiani-Ricciardi
Idelson-gnocchi
Manuale di Epidemiologia per la Sanita' Pubblica
Faggiano-Donato-Barbone

AMBIT	10350-Scienze della prevenzione e dei servizi sanitari
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

To present, analyze and discuss the theoretical and practical methods of prevention, monitoring and control to improve the population's health status.
Induce a medical education oriented to the evaluation and resolution of problems of Public Health related to the occurrence of events in the life and work environments also in relation to national and regional health care organization.

SYLLABUS

Hrs	Frontal teaching
3	- Definition and objectives of Hygiene and Health 'Public - Demographic parameters of interest for health and health indicators of a population
3	- Definition and general objectives of Primary, Secondary and Tertiary level of Prevention with related application methods.
3	- Strategic objectives of prevention: control, elimination and eradication of diseases
2	- Disinfection practices, environmental vectors control and sterilization - Biological risk assessment in health care workers
3	- Epidemiology and primary and secondary prevention of infectious diseases - Active and Passive Immunoprophylaxis
4	- Vaccines: constitution, routes of administration, administration strategies, evaluating the effectiveness of vaccines. Required and recommended immunizations, current immunization schedule in Italy and in Sicily - Immunoglobulins: types, modalities of administration, effectiveness.
3	- Epidemiology and prevention of chronic diseases: primary prevention techniques, secondary and tertiary applications and strategies.
3	- Food hygiene: food storage, HACCP, food poisoning
3	- Environmental Hygiene: environmental matrices, air pollution, water and the water cycle, waste management and reflexes to human health
3	- Health organization in Italy: the National Health Plan, Health Authorities, Essential Levels of Care - Clinical Governance and its instruments for the control and reduction of clinical-risk HTA

MODULE OCCUPATIONAL MEDICINE

Prof. GUIDO LACCA

SUGGESTED BIBLIOGRAPHY

Scansetti-Piolatto-Perrelli "Medicina del Lavoro" Minerva Medica Ed. Torino
Lorenzo Alessio, Pietro Apostoli "Manuale di medicina del lavoro e igiene industriale" - Piccin-Nuova Libreria

AMBIT	10350-Scienze della prevenzione e dei servizi sanitari
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INDIVIDUAL STUDY (Hrs)	45
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COURSE ACTIVITY (Hrs)	30
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EDUCATIONAL OBJECTIVES OF THE MODULE

Identification of issues related to environmental conditions of work, preventive interventions for resolution. Knowledge of the rules that protect workers' health.

SYLLABUS

Hrs	Frontal teaching
3	Hygienic principles
3	Risk assessment
3	Accidents at work and occupational disease. Other forms of insurance
3	The physical hazards (ionizing and non-ionizing radiation, noise, vibration, electricity, ROA)
3	The chemical risks (chemicals, carcinogenic, mutagenic)
3	The biological risks (occupational infections)
6	The organizational risks (manual handling of loads, VDU, awkward postures)
3	Stress indices and thermal comfort
3	The evaluation of work-related stress

MODULE GENERAL PATHOLOGY

Prof.ssa NADIA ROSALIA CACCAMO

SUGGESTED BIBLIOGRAPHY

G.M. Pontieri – PATOLOGIA GENERALE – per i corsi di laurea in professioni sanitarie – Piccin

Pontieri, Russo, Frati – PATOLOGIA GENERALE – Piccin

AMBIT	10338-Scienze biomediche
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

This module provides a basic working knowledge of pathology and pathological conditions. The module emphasizes on basics principles and tumor pathology, micro-organisms, clinical conditions and systemic disease that are common and radiologically significant and common. The principal goal is to understand the mechanisms of disease (pathogenesis) and the basic mechanism of production of signs (with special emphasis on radiological signs) and symptoms of various diseases. Physiology of the immune system, natural and acquired immunity, and inflammation will be also treated.

SYLLABUS

Hrs	Frontal teaching
2	The immune system: innate and acquired immunity.
2	Cells of the immune system, the cellular and the humoral immune response, the Major Histocompatibility complex.
2	Significance of health and disease, homeostasis, etiology and pathogenesis. Diseases due to intrinsic and extrinsic causes.
2	Infectious diseases, the defense of the the immune system toward the microorganisms.
5	Inflammation: definition and biological significance, the mediators of inflammation, the various forms of exudates, the cardinal signs of inflammation.
2	Cells involved in the inflammation, adhesion molecules, leukocytes recruitment, Toll like receptors, cellular death: necrosis and apoptosis.
3	Chronic inflammation: principal causes of chronic inflammation, cells and mediators of chronic inflammation, phases of the process, causes and phases of granuloma formation and related human diseases.
3	Proinflammatory cytokines, the role of chemokines in inflammation.
3	The systemic effects of inflammation: acute phase proteins, erythrocyte sedimentation rate, leukocytosis, fever and the effect of the cytokines on the hypothalamus.
3	Hypersensitivity reactions, definition of allergy, atopy and anaphylaxis.
3	Gell and Coombs classification, immunopathology of tuberculosis.