UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Promozione della Salute, Materno-Infantile, di Medicina Interna e Specialistica di Eccellenza “G. D’Alessandro”		
ACADEMIC YEAR	2019/2020		
BACHELOR'S DEGREE (BSC)	PREVENTION TECHNIQUES FOR THE ENVIRONMENT AND WORKPLACE		
INTEGRATED COURSE	BIOLOGICAL HAZARD AND LABOUR SAFETY - INTEGRATED COURSE		
CODE	08586		
MODULES	Yes		
NUMBER OF MODULES	3		
SCIENTIFIC SECTOR(S)	MED/50, MED/42, MED/44		
HEAD PROFESSOR(S)	MAIDA CARMELO MASSIMO	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)	MAIDA CARMELO MASSIMO	Professore Associato	Univ. di PALERMO
	ZINGARIELLO DAVIDE	Professore a contratto	Univ. di PALERMO
	LACCA GUIDO	Ricercatore	Univ. di PALERMO
CREDITS	11		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	3		
TERM (SEMESTER)	2° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	**LACCA GUIDO** Monday 11:00 13:00 Dipartimento Promise Istituto di Medicina del Lavoro **MAIDA CARMELO MASSIMO** Monday 09:30 11:30 Dipartimento di Scienze per la Promozione della Salute, sezione di Igiene, Via del Vespro 133. Thursday 09:30 11:30 Dipartimento di Scienze per la Promozione della Salute, sezione di Igiene, Via del Vespro 133.		

DOCENTE: Prof. CARMELO MASSIMO MAIDA

PREREQUISITES	The student must have basic knowledge of microbiology, with particular reference to pathogenic and/or opportunist microorganisms, the way of spread of infectious disease and occupational medicine.
LEARNING OUTCOMES	Acquire the knowledge and the ability to understand the topics related to exposure to pathogenic microorganisms in the professional, those related to the promotion of safety in the workplace including through audits in industrial plants. Acquire the knowledge and skills of understanding applied to the biological risk assessment, the drafting of the DVR, the mode of transmission of microorganisms and their exposure in the workplace. Increase the autonomy of judgment, the ability to learn and the ability communication through the study and the realization of presentations on topics of particular interest in the context of the biological risk prevention and health promotion in the workplace.
ASSESSMENT METHODS	The candidate will have to answer at least two/three orally posed questions for each module that constitutes the integrated course, on all parties of the program, in compliance to the recommended texts. The final examination aims to evaluate whether the student has knowledge and understanding of the topics, has acquired the ability and independent judgment to interpret concrete cases. The sufficiency will be threshold when the student shows knowledge and understanding of the issues at least in broad outline, and has minimal application skills in order to solve concrete cases; It must also possess skill in exhibition and argumentative to allow the transmission of his knowledge to the examiner. Below this threshold, the examination will be insufficient. The more, however, the examinee with his ability 'argumentative and expository able to interact with the examiner, and the more his knowledge and ability applications go into detail of the discipline of verification, the more assessment will be positive . The assessment is carried out of thirty. In detail, the vote will be based on the following principles: Excellent (30-30 Honours) - Excellent knowledge of the topics, excellent properties of language, good capacity analytic, students and able to apply knowledge to solve problems proposed. Very Good (26-29) - Good knowledge of the topics, full ownership of the language, the student and able to apply knowledge to solve problems proposed. Good (24-25) - Basic knowledge of the main topics, discrete properties of language, with limited ability to independently apply the knowledge to the solution of the proposed problems. Satisfactory (21-23) - has not fully mastered the main teaching subjects but it has the knowledge, satisfactory property language, poor ability to independently apply the knowledge gained. Sufficient (18-20) - Minimum basic understanding of the main topics of teaching and technical languages, very little or no ability to independently apply the knowledge gained. Insufficient - It does not have an acceptable knowledge of the contents of the topics covered in the teaching.
TEACHING METHODS	Lectures and laboratory exercises (only for module of biological risk).

MODULE
BIOLOGICAL HAZARD

Prof. CARMELO MASSIMO MAIDA

SUGGESTED BIBLIOGRAPHY

De Grandis Daniele, Frusteri Liliana, Pontuale Giorgio, Scarlini Francesco. Manuale per la valutazione del rischio biologico. EPC Editore, 2011, ISBN: 978-88-6310-303-8.
De Grandis Daniele, Frusteri Liliana, Pontuale Giorgio. Abc del rischio biologico. EPC Editore, 2013. ISBN: 978-88-6310-434-9.
Ruggenini Moiraghi, G.M. Grasso. Il Rischio Biologico nei laboratori. Ed. Medico Scientifiche, 2001.
Dispense docente

AMBIT	10360-Scienze della prevenzione nell' ambiente e nei luoghi di lavoro
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

Acquire the knowledge and skills understanding of topics related to exposure to pathogens in a professional environment.
Acquire the knowledge and skills of understanding applied to the biological risk assessment, methods of transmission of microorganisms and their exposure in the workplace.
Acquire the knowledge of the techniques of prevention strategies and the biohazard containment.

SYLLABUS

Hrs	Frontal teaching
2	Classification of biological agents and their transmission routes
2	Biological risk assessment. Concept of " danger " and " risk" Risk evaluation document
2	Biological Risk in Health Care. D.Lgs 81/08, tit. X. General rules for the prevention of occupational infections . Examples in the scientific literature.
4	Description and use of collective protective equipment (biological cabinet of I , II , III class , micro pipettes , automated pipettors) ; correct use of personal protective equipment: gloves, masks , visors; Description and use of equipment used to sterilize: autoclave, bunsen burner, Millipore filter, incinerator loop/needle
4	Containment measures: the biosafety levels , description of personal protective equipment
3	Procedures of disinfection and sterilization
4	Occupational infections from blood-borne viruses (HIV , HBV , HCV) : transmission routes, risk quantification, factors that influence the risk of transmission, the definition of "case of occupational infection with HIV proven and possible. " Discussion of cases reported in the scientific literature.
7	Evaluation of biohazard in extra hospital works

Hrs	Practice
2	Visit to a BLS-2 laboratory

MODULE
APPLIED TECHNICAL AND MEDICAL SCIENCES 3

Prof. DAVIDE ZINGARIELLO

SUGGESTED BIBLIOGRAPHY

Decreto legislativo n.81 del 2008
Altro materiale fornito durante le lezioni

AMBIT	10360-Scienze della prevenzione nell' ambiente e nei luoghi di lavoro
INDIVIDUAL STUDY (Hrs)	75
COURSE ACTIVITY (Hrs)	50

EDUCATIONAL OBJECTIVES OF THE MODULE

Provide to students the knowledge for the promotion of safety in the workplace through audits in industrial plants, the application of the reference legislation, the preparation of the DVR.

SYLLABUS

Hrs	Frontal teaching
4	Regulation for Safety: evolution, references, actors. D.L. 81/2008
4	Risk analysis at the workplace (various types of work)
4	Safety in plants. Safety signposting.
4	Safety in constructions: regulations, DPI
4	Structural assessments of the workplace, machinery and equipment . DPI
4	Risk assessment document (DVR)
4	Electric risk assessment
4	Safety and fire prevention. Emergency plan.
4	Safety and prevention at temporary or mobile construction sites
4	Electromagnetic pollution risk
4	Systems of occupational safety management

Hrs	Practice
6	Teamwork on Risk Assesment Document (DVR)

MODULE
OCCUPATIONAL MEDICINE II

Prof. GUIDO LACCA

SUGGESTED BIBLIOGRAPHY

COMPENDIO DI MEDICINA DEL LAVORO (G. Lacca, A. Miceli, S. Bastone) - Edizioni Minerva Medica (in press)
Lorenzo Alessio, Pietro Apostoli "Manuale di medicina del lavoro e igiene industriale" - Piccin-Nuova Libraria

AMBIT	10360-Scienze della prevenzione nell' ambiente e nei luoghi di lavoro
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

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