



# UNIVERSITÀ DEGLI STUDI DI PALERMO

<b>DEPARTMENT</b>	Biomedicina, Neuroscienze e Diagnostica avanzata		
<b>ACADEMIC YEAR</b>	2017/2018		
<b>MASTER'S DEGREE (MSC)</b>	MEDICINE AND SURGERY		
<b>INTEGRATED COURSE</b>	HYGIENE AND INDUSTRIAL MEDICINE - INTEGRATED COURSE		
<b>CODE</b>	13293		
<b>MODULES</b>	Yes		
<b>NUMBER OF MODULES</b>	3		
<b>SCIENTIFIC SECTOR(S)</b>	MED/42, MED/01, MED/44		
<b>HEAD PROFESSOR(S)</b>	VITALE FRANCESCO	Professore Ordinario	Univ. di PALERMO
	MAZZUCCO WALTER	Professore Ordinario	Univ. di PALERMO
	CASUCCIO ALESSANDRA	Professore Ordinario	Univ. di PALERMO
<b>OTHER PROFESSOR(S)</b>	CANNIZZARO EMANUELE	Professore Associato	Univ. di PALERMO
	VITALE FRANCESCO	Professore Ordinario	Univ. di PALERMO
	MATRANGA DOMENICA	Professore Ordinario	Univ. di PALERMO
	ENEA MARCO	Professore Associato	Univ. di PALERMO
	MAZZUCCO WALTER	Professore Ordinario	Univ. di PALERMO
	CASUCCIO ALESSANDRA	Professore Ordinario	Univ. di PALERMO
	VERSO MARIA GABRIELLA	Ricercatore	Univ. di PALERMO
	LACCA GUIDO	Ricercatore	Univ. di PALERMO
<b>CREDITS</b>	11		
<b>PROPAEDEUTICAL SUBJECTS</b>			
<b>MUTUALIZATION</b>			
<b>YEAR</b>	5		
<b>TERM (SEMESTER)</b>	1° semester		
<b>ATTENDANCE</b>	Mandatory		
<b>EVALUATION</b>	Out of 30		
<b>TEACHER OFFICE HOURS</b>	<p><b>CANNIZZARO EMANUELE</b> Monday 09:30 11:00 Medicina del Lavoro. Primo piano stanza docente</p> <p><b>CASUCCIO ALESSANDRA</b> Tuesday 11:00 13:00 Si riceve previo appuntamento con il docente scrivendo alla email: <a href="mailto:alessandra.casuccio@unipa.it">alessandra.casuccio@unipa.it</a> La sede dello studio e sita al primo piano del dipartimento di Promozione della Salute, Materno Infantile, di Medicina Interna e Specialistica di Eccellenza "G. D'Alessandro" (Policlinico), via del vespro, 133, 90127 Palermo</p> <p>Thursday 11:00 13:00 Si riceve previo appuntamento con il docente scrivendo alla email: <a href="mailto:alessandra.casuccio@unipa.it">alessandra.casuccio@unipa.it</a> La sede dello studio e sita al primo piano del dipartimento di Promozione della Salute, Materno Infantile, di Medicina Interna e Specialistica di Eccellenza "G. D'Alessandro" (Policlinico), via del vespro, 133, 90127 Palermo</p> <p><b>ENEA MARCO</b> Monday 15:00 17:00 Dipartimento PROMISE - Sezione di Igiene - Universita degli Studi di Palermo - Via del Vespro, 133, Palermo. Stanza del Docente. Si consiglia di contattare il docente per un appuntamento.</p> <p><b>LACCA GUIDO</b> Monday 11:00 13:00 Dipartimento Promise Istituto di Medicina del Lavoro</p>		

**MATRANGA DOMENICA**

Friday 12:00 13:30 Stanza della docente, Dipartimento di Promozione della Salute, Materno-Infantile, Medicina interna e specialistica di eccellenza "G. D'Alessandro", Via del Vespro, 133, piano terra

**MAZZUCCO WALTER**

Friday 10:00 12:00 Primo piano Edificio via del Vespro 133 presso ex Istituto di Igiene del Dipartimento PROSAMI

**VERSO MARIA****GABRIELLA**

Monday 12:00 13:00 Sezione di Medicina del Lavoro

**VITALE FRANCESCO**

Monday 13:00 14:00 studio sito al primo piano plesso Igiene e Microbiologia - Dipartimento PROMISE, via del Vespro, 133, 90127 Palermo

<b>PREREQUISITES</b>	Basic knowledge of the diseases which are prevalent in the general population and the associated risk factors . General Elements of epidemiology and health demographics , basic concepts on prevention and health system .
<b>LEARNING OUTCOMES</b>	<p>Knowledge and ability to understand:          Knowing the determinants and major health risk factors and disease and the interaction between population and his physical and social environment.          Knowing the etiology and natural history of acute and chronic diseases.          Understand the epidemiology, health economics and the basics of health management</p> <p>Capacity to apply knowledge and understanding:          Knowing how to properly evaluate health problems and know how to advise patients taking into account physical, psychological, social and cultural rights.          Learn about the appropriate use of human resources, diagnostic issues , the therapeutic interventions and approach to technologies dedicated to health care.          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. Know the status of international health, global trends in morbidity and mortality of significant chronic illness from a social point of view, the impact of migration, trade, and environmental factors on health and the role of international health organizations. Gain an understanding of the need for a shared responsibility collective interventions in health promotion that requires close collaboration with the population, and a multidisciplinary approach, including health professionals and also intersectoral collaboration. Knowing the basic organization of health systems, including policies, organization, financing, restrictive measures on the costs and the principles of efficient management of the proper provision of health care. Demonstrate a good understanding of the mechanisms that underlie equity access to health care, effectiveness and quality of care. 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.</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 interventions and for surveillance and monitoring of the health status.</p>
<b>ASSESSMENT METHODS</b>	<p>written test and possible oral examination of the student's choice. The written test consists of 15 multiple-choice questions and three open questions with a synthetic response in 10 lines about the arguments of the different modules. The written test will be based on the scores obtained from candidates in multiple choice questions (max 15 points) and in open questions (each max 5 points). A score of 18 to 26 points will be confirmed as the final score of the integrated exam or, as a student choice, will result in an oral examination whose integrated assessment for the course modules will be evaluated as follows:</p> <p>Basic knowledge of the subject of the examination and sufficient synthesis and exposure capacity rating between 18 and 23          In-depth knowledge of the subject of the exam and good synthesis and exposure ratings between 24 and 27          Excellent knowledge of the subject of examination and appropriate correlation with other relevant topics and excellent synthesis and exposure ratings between 28 and 30 and praise</p>
<b>TEACHING METHODS</b>	frontal lessons

<p><b>PREREQUISITES</b></p>	<p>Basic knowledge of the diseases's prevalence in the general population and in the workers as well as the associated risk factors. General elements of epidemiology and health demographics, basic concepts on prevention in public and occupational settings, and on the health system.</p>
<p><b>LEARNING OUTCOMES</b></p>	<p>Knowledge and ability to understand: Knowing the determinants and health risk factors related to the major diseases and the interaction between population and physical and social environment with a focus on the occupational setting. Knowing the etiology and natural history of acute and chronic diseases. Understand epidemiology, health economics and the basics of health management. To acquire the basic elements of health and occupational surveillance.</p> <p>Capacity to apply knowledge and understanding: Knowing how to properly evaluate health problems and know how to advise patients and workers taking into account physical, psychological, social and cultural rights. To learn about the appropriate use of human resources, diagnostic issues, therapeutic interventions and approaching to technologies dedicated to health care.</p> <p>Know the main determinants of health and disease, such as lifestyle, genetic factors, demographic, environmental, socio-economic, psychological and cultural factors dealing with the overall population and the workers; Being aware of the important role of the determinants of health and disease, and to acquire skills to take adequate preventive and protective measures against diseases, injuries and accidents, maintaining and promoting the health of the individual, the family, the community and the occupational setting. Knowing the status of the international health, global trends in morbidity and mortality of the significant chronic illness from a social point of view, the impact of migration, trade, and environmental factors on health and the role of international health organizations. To gain an understanding of the need for a shared responsibility collective interventions in health promotion in the public and in the occupational settings that requires close collaboration with the general population and the workers, and a multidisciplinary approach, including health professionals and also intersectoral collaboration. Knowing the basic organization of health systems, including policies, organization, financing, restrictive measures on the costs and the principles of efficient management of the proper provision of health care. To demonstrate a good understanding of the mechanisms to guarantee equity in the access to health care, effectiveness and quality of care. 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. To acquire skills to practice health and occupational surveillance.</p> <p>Making judgments: Acquiring skills to integrate knowledge and handle complexity, as well as to make judgments based on incomplete or limited information, including at the same time the social and ethical responsibility linked to the application of the knowledge and judgments.</p> <p>Enable communication: Knowing how to clearly communicate the findings as well as the knowledge and the underpinning rationale, 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 interventions and for surveillance and monitoring of the health status in the public and occupational settings.</p>
<p><b>ASSESSMENT METHODS</b></p>	<p>The exam consists in a written test, which can be integrated by an optional oral examination on student's request.</p> <p><b>WRITTEN TEST</b></p> <p>The written test is designed to explore knowledge, skills, abilities acquired by the student as well as his ability to use a proper epidemiological language. The written test, lasting 1 hour, is structured in 15 multiple choice tests and in 3 open questions. The tests allow the students to independently formulate the answer and are structured to allow comparison with that answers provided by the other students.</p> <p>The student is asked to provide correct answers to the questions proposed in order to achieve a sufficient score in terms of general understanding of the topics, as well as a minimum of applicative knowledge.</p>

	<p><b>ORAL EXAMINATION</b>  The oral examination focuses as first on a deeper investigation of the argument proposed within the written test whose answers where incorrect and/or not exhaustive. The number of questions is a function of the incorrect not exhaustive answers provided within the written test. The board of examiners reserves the right to explore other topics included in the program.  The student is asked to provide correct and complete answers to the questions proposed (presented also in the form of examples) in order to achieve at least a sufficient score in terms of general understanding of the topics, as well as a minimum of applicative knowledge.</p> <p><b>METHOD OF FINAL EVALUATION</b>  The final evaluation of the examination will consider three dimensions: i) the mastery of the topic; ii) the ability of applicative knowledge and iii) the property of language.  The board of examiners will evaluate each of the previous dimensions as follows: "Not evaluable", "Poor", "Fair", "Good" and "Excellent". Therefore, the assessment method will be structured in the following scores:  Insufficient: if at least two "Not evaluable" and no "Excellent"  18-20: if at least two "Fair" and no "Excellent"  21-24: if at least two "Good" and no "Excellent"  25-27: If one "Excellent"  28-30: if two "Excellent"  30 cum laude: if three "Excellent"  The score range will allow the teacher to take into account the context factors (such as the active participation to classes or the presence of a disability).</p>
<b>TEACHING METHODS</b>	Frontal lessons and exercises

**DOCENTE:** Prof.ssa ALESSANDRA CASUCCIO- Sede IPPOCRATE

<b>PREREQUISITES</b>	Basic knowledge of the diseases which are prevalent in the general population and the associated risk factors . General Elements of epidemiology and health demographics , basic concepts on prevention and health system .
<b>LEARNING OUTCOMES</b>	Knowledge and ability to understand: Knowing the determinants and major health risk factors and disease and the interaction between population and his physical and social environment. Knowing the etiology and natural history of acute and chronic diseases. Understand the epidemiology, health economics and the basics of health management Capacity to apply knowledge and understanding: Knowing how to properly evaluate health problems and know how to advise patients taking into account physical, psychological, social and cultural rights. Learn about the appropriate use of human resources, diagnostic issues , the therapeutic interventions and approach to technologies dedicated to health care. 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. Know the status of international health, global trends in morbidity and mortality of significant chronic illness from a social point of view, the impact of migration, trade, and environmental factors on health and the role of international health organizations. Gain an understanding of the need for a shared responsibility collective interventions in health promotion that requires close collaboration with the population, and a multidisciplinary approach, including health professionals and also intersectoral collaboration. Knowing the basic organization of health systems, including policies, organization, financing, restrictive measures on the costs and the principles of efficient management of the proper provision of health care. Demonstrate a good understanding of the mechanisms that underlie equity access to health care, effectiveness and quality of care. 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. 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. Enable communication: Knowing how to clearly communicate the findings as well as the knowledge and rationale underpinning these, to specialist and non-specialists. 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 interventions and for surveillance and monitoring of the health status.
<b>ASSESSMENT METHODS</b>	written test and possible oral examination of the student's choice. The written test consists of 15 multiple-choice questions and three open questions with a synthetic response in 10 lines about the arguments of the different modules. The written test will be based on the scores obtained from candidates in multiple choice questions (max 15 points) and in open questions (each max 5 points). A score of 18 to 26 points will be confirmed as the final score of the integrated exam or, as a student choice, will result in an oral examination whose integrated assessment for the course modules will be evaluated as follows: Basic knowledge of the subject of the examination and sufficient synthesis and exposure capacity rating between 18 and 23 In-depth knowledge of the subject of the exam and good synthesis and exposure ratings between 24 and 27 Excellent knowledge of the subject of examination and appropriate correlation with other relevant topics and excellent synthesis and exposure ratings between 28 and 30 and praise
<b>TEACHING METHODS</b>	frontal lessons

**MODULE  
OCCUPATIONAL MEDICINE**

*Prof. EMANUELE CANNIZZARO - Sede IPPOCRATE, - Sede IPPOCRATE*

**SUGGESTED BIBLIOGRAPHY**

- L. Ambrosi, V. Foa' - Trattato di Medicina del Lavoro seconda edizione (UTET Ed. 2003)
- G. Scansetti-P.G. Piolatto- G. Perrelli: "Medicina del Lavoro", Edizione Minerva medica, Torino, 2000
- D. Lgs 81/2008 e successive integrazioni e modifiche

<b>AMBIT</b>	50409-Medicina e sanità pubblica e degli ambienti di lavoro e scienze medico legali
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

**EDUCATIONAL OBJECTIVES OF THE MODULE**

The objectives are to present, analyze and discuss the technical and practical methods of prevention, describe the health surveillance and control activities for the improvement of workers' health. It also intends to provide training geared to support the evaluation and resolution of public health problems related to the occurrence of health events in the workplace.

**SYLLABUS**

Hrs	Frontal teaching
30	<ul style="list-style-type: none"> <li>- Methodological approach in occupational health: 1 hour</li> <li>- Classification of risks in the workplace: 1 hour</li> <li>- Concepts of primary prevention, secondary and tertiary education in the workplace: 1 hour.</li> <li>- Clinical framework for the main occupational diseases caused by physical, chemical, biological: 15 hours.</li> <li>- Biological Monitoring: defining individual susceptibility: 2 hours.</li> <li>- Training in Occupational Medicine: 2 hours.</li> <li>- Legislation on prevention of occupational diseases and accidents at work: 2 hours.</li> <li>- Elements of insurance against accidents and occupational diseases: 2 hours.</li> <li>- Health effects of work activities with risks related to the organization of work (shift work, posture, MMC, stress): 2 hours.</li> <li>- Findings of suitability to the specific job: correlation between risk, clinical and instrumental data, environmental and legislative references: 2 hours.</li> </ul>

**MODULE  
GENERAL AND APPLIED HYGIENE**

*Prof. FRANCESCO VITALE - Sede CHIRONE, - Sede CHIRONE*

**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

<b>AMBIT</b>	50406-Scienze umane, politiche della salute e management sanitario
<b>INDIVIDUAL STUDY (Hrs)</b>	75
<b>COURSE ACTIVITY (Hrs)</b>	50

**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**

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



**MODULE  
OCCUPATIONAL MEDICINE**

*Prof. GUIDO LACCA - Sede HYPATIA, - Sede HYPATIA*

**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

<b>AMBIT</b>	50409-Medicina e sanità pubblica e degli ambienti di lavoro e scienze medico legali
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<b>INDIVIDUAL STUDY (Hrs)</b>	45
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<b>COURSE ACTIVITY (Hrs)</b>	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**

<b>Hrs</b>	<b>Frontal teaching</b>
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 AND APPLIED HYGIENE**

*Prof.ssa ALESSANDRA CASUCCIO - Sede IPPOCRATE, - Sede IPPOCRATE*

**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

<b>AMBIT</b>	50406-Scienze umane, politiche della salute e management sanitario
<b>INDIVIDUAL STUDY (Hrs)</b>	75
<b>COURSE ACTIVITY (Hrs)</b>	50

**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 Public Health - 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 - the concept of active and passive Immunoprophylaxis
4	- Vaccines : constitution, routes of administration , application strategies in different Public Health contexts, 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 and safety: 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 Health Care Levels - Clinical Governance and its instruments for the control and reduction of clinical- risk, HTA

**MODULE  
MEDICAL STATISTICS**

*Prof.ssa DOMENICA MATRANGA - Sede CHIRONE, - Sede CHIRONE*

**SUGGESTED BIBLIOGRAPHY**

Triola MM Triola MF, Fondamenti di statistica per le discipline biomediche, 2017 Pearson Italia

Altri testi di approfondimento

Bacchieri A., Della Cioppa G. Fondamenti di ricerca clinica, Springer

<b>AMBIT</b>	50405-Inglese scientifico e abilità linguistiche, informatiche e relazionali, pedagogia medica, tecnologie avanzate e a distanza di informazione e comunicazione
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

**EDUCATIONAL OBJECTIVES OF THE MODULE**

The course is aimed to introduce the statistical methodology useful to the skills of medicine and epidemiology. Students will be introduced to the elementary concepts of descriptive statistics, probability calculation and statistical inference. Moreover, they will learn the principals of biomedical study design and of statistical data analysis

**SYLLABUS**

Hrs	Frontal teaching
2	Basic concepts: qualitative and quantitative characters, discrete and continuous characters, scales of measurement: nominal, ordinal, intervals and ratio
2	Data presentation: frequency and quantity distributions. Graphical representations
3	Measures of mean and variability with exercises
2	Measures of occurrence: prevalence and incidence
3	Observational and experimental studies
4	Elements of probability theory. Bayes Theorem. Measures of accuracy of diagnostic tests. Roc Curves
2	Theoretical distributions: Gauss and Binomial distribution, with exercises
2	Central Limit Theorem. Sample distributions of sample mean and sample frequency, with exercises
3	Statistical estimate of Mean and Frequency
3	Statistical tests for the mean and the frequency
2	Measuring risk: Risk difference, Odds ratio and Relative Risk
2	Tests of statistical association

**MODULE  
OCCUPATIONAL MEDICINE**

*Prof.ssa MARIA GABRIELLA VERSO - Sede CHIRONE, - Sede CHIRONE*

**SUGGESTED BIBLIOGRAPHY**

- L. Ambrosi, V. Foa' - Trattato di Medicina del Lavoro seconda edizione (UTET Ed. 2003)
- G. Scansetti-P.G. Piolatto- G. Perrelli: "Medicina del Lavoro", Edizione Minerva medica, Torino, 2000
- D. Lgs 81/2008 e successive integrazioni e modifiche

<b>AMBIT</b>	50409-Medicina e sanità pubblica e degli ambienti di lavoro e scienze medico legali
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

**EDUCATIONAL OBJECTIVES OF THE MODULE**

The objectives are to present, analyze and discuss the technical and practical methods of prevention, describe the health surveillance and control activities for the improvement of workers' health. It also intends to provide training geared to support the evaluation and resolution of public health problems related to the occurrence of health events in the workplace.

**SYLLABUS**

Hrs	Frontal teaching
30	<ul style="list-style-type: none"> <li>- Methodological approach in occupational health: 1 hour</li> <li>- Classification of risks in the workplace: 1 hour</li> <li>- Concepts of primary prevention, secondary and tertiary education in the workplace: 1 hour.</li> <li>- Clinical framework for the main occupational diseases caused by physical, chemical, biological: 15 hours.</li> <li>- Biological Monitoring: defining individual susceptibility: 2 hours.</li> <li>- Training in Occupational Medicine: 2 hours.</li> <li>- Legislation on prevention of occupational diseases and accidents at work: 2 hours.</li> <li>- Elements of insurance against accidents and occupational diseases: 2 hours.</li> <li>- Health effects of work activities with risks related to the organization of work (shift work, posture, MMC, stress): 2 hours.</li> <li>- Findings of suitability to the specific job: correlation between risk, clinical and instrumental data, environmental and legislative references: 2 hours.</li> </ul>