



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Biomedicina, Neuroscienze e Diagnostica avanzata		
ACADEMIC YEAR	2022/2023		
MASTER'S DEGREE (MSC)	MEDICINE AND SURGERY		
INTEGRATED COURSE	HYGIENE, INDUSTRIAL MEDICINE AND MEDICAL STATISTICS - INTEGRATED COURSE		
CODE	21343		
MODULES	Yes		
NUMBER OF MODULES	3		
SCIENTIFIC SECTOR(S)	MED/44, MED/42, MED/01		
HEAD PROFESSOR(S)	VITALE FRANCESCO	Professore Ordinario	Univ. di PALERMO
	MAZZUCCO WALTER	Professore Ordinario	Univ. di PALERMO
	CASUCCIO ALESSANDRA	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)	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
	LACCA GUIDO	Ricercatore	Univ. di PALERMO
	FIRENZE ALBERTO	Professore Associato	Univ. di PALERMO
CREDITS	11		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	5		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	CANNIZZARO EMANUELE Monday 09:30 11:00 Medicina del Lavoro. Primo piano stanza docente CASUCCIO ALESSANDRA Tuesday 11:00 13:00 Si riceve previo appuntamento con il docente scrivendo alla email: alessandra.casuccio@unipa.it La sede dello studio è 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 Thursday 11:00 13:00 Si riceve previo appuntamento con il docente scrivendo alla email: alessandra.casuccio@unipa.it La sede dello studio è 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 ENEA MARCO Monday 15:00 17:00 Dipartimento PROMISE - Sezione di Igiene - Università degli Studi di Palermo - Via del Vespro, 133, Palermo. Stanza del Docente. Si consiglia di contattare il docente per un appuntamento. FIRENZE ALBERTO Friday 14:00 15:00 Dipartimento di Scienze per la promozione della Salute e Materno Infantile "G. D'Alessandro".		

	LACCA GUIDO			
	Monday	11:00	13:00	Dipartimento Promise Istituto di Medicina del Lavoro
	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
	VITALE FRANCESCO			
	Monday	13:00	14:00	studio sito al primo piano plesso Igiene e Microbiologia - Dipartimento PROMISE, via del Vespro, 133, 90127 Palermo

PREREQUISITES	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 .
LEARNING OUTCOMES	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.
ASSESSMENT METHODS	The exam consists in a written test and oral examination. WRITTEN TEST 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 multiple choice quiz and open test when appropriate. The tests allow the students to independently formulate the answer and are structured to allow comparison with that answers provided by the other students. 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. Students scoring from 18 to 30 will access the oral examination. ORAL EXAMINATION 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. METHOD OF FINAL EVALUATION 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" 18-23: if at least two "Fair" and no "Excellent" 24-27: if at least two "Good" and no "Excellent" 25-27: If one "Excellent" 28-30 cum laude: if two to 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).
TEACHING METHODS	frontal lessons

PREREQUISITES	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.
LEARNING OUTCOMES	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. 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. 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. 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. Enable communication: Knowing how to clearly communicate the findings as well as the knowledge and the underpinning rationale, 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 in the public and occupational settings.
ASSESSMENT METHODS	The exam consists in a written test and oral examination. WRITTEN TEST 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 multiple choice quiz and open test when appropriate. The tests allow the students to independently formulate the answer and are structured to allow comparison with that answers provided by the other students. 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. Students scoring from 18 to 30 will access the oral examination. ORAL EXAMINATION 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. METHOD OF FINAL EVALUATION 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" 18-23: if at least two "Fair" and no "Excellent" 24-27: if at least two "Good" and no "Excellent" 25-27: If one "Excellent" 28-30 cum laude: if two to 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).
TEACHING METHODS	Frontal lessons and exercises

PREREQUISITES	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 .
LEARNING OUTCOMES	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.
ASSESSMENT METHODS	The exam consists in a written test and oral examination. WRITTEN TEST 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 multiple choice quiz and open test when appropriate. The tests allow the students to independently formulate the answer and are structured to allow comparison with that answers provided by the other students. 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. Students scoring from 18 to 30 will access the oral examination. ORAL EXAMINATION 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. METHOD OF FINAL EVALUATION 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" 18-23: if at least two "Fair" and no "Excellent" 24-27: if at least two "Good" and no "Excellent" 25-27: If one "Excellent" 28-30 cum laude: if two to 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).
TEACHING METHODS	frontal lessons

MODULE OCCUPATIONAL MEDICINE <i>Prof. ALBERTO FIRENZE - Sede CHIRONE, - Sede CHIRONE</i>	
SUGGESTED BIBLIOGRAPHY	
- F. Tomei et al: Manuale di Medicina del Lavoro. Piccin editore, 2018 - 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 - A. Firenze et al: Conoscere per gestire il rischio in sanità 2021, SEU editore	
AMBIT	50409-Medicina e sanità pubblica e degli ambienti di lavoro e scienze medico legali
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30
EDUCATIONAL OBJECTIVES OF THE MODULE	
To present, analyze and discuss the technical and applicative methodologies of prevention, health surveillance and control to improve the health of workers. Induce medical training aimed at the assessment and resolution of public health issues related to occurrence of health events in the workplace.	

SYLLABUS

Hrs	Frontal teaching
1	- Methodological approach in Occupational Medicine
1	- Classification of risks in the workplace
1	- Concepts of primary, secondary and tertiary prevention in the occupational field
15	- Clinical classification of the main professional pathologies caused by physical, chemical, biological agents
2	- Biological monitoring: define individual susceptibility
2	- Training in Occupational Medicine
2	- Legislation on the prevention of occupational diseases and accidents at work
2	- Elements of insurance against accidents and occupational diseases
2	- Health effects of work activities with risks related to work organization (shift work, posture, MMC, stress)
2	- Assessment of suitability for specific work: correlation between risk, clinical and instrumental, environmental data and legislative references

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

AMBIT	50409-Medicina e sanità pubblica e degli ambienti di lavoro e scienze medico legali
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	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.

The evaluation of the student will take place through a written test and an oral test.

The written test will include multiple choice questions or, where appropriate, short answer open questions on topics of Hygiene, Occupational Medicine and Medical Statistics. The number of questions included in the written test will be weighted by the number of credits of each module of the integrated course.

An evaluation of the written test with a score between 0 and 17 points will automatically result in failure of the exam.

Otherwise, students who have scored between 18 and 30 points will access the oral exam. The overall evaluation of the exam will be as follows:

- Insufficient basic knowledge of the exam topic: exam failed
- Basic knowledge of the exam topic and sufficient capacity for synthesis and presentation: grade between 18 and 23
- In-depth knowledge of the exam topic and good synthesis and presentation skills: grade between 24 and 27
- Excellent knowledge of the exam topic and appropriate correlation with other relevant topics and excellent synthesis and presentation skills: grade between 28 and 30 with honors.

SYLLABUS

Hrs	Frontal teaching
1	Methodological approach in occupational health
1	Classification of risks in the workplace
1	Concepts of primary prevention, secondary and tertiary education in the workplace
15	Clinical framework for the main occupational diseases caused by physical, chemical, biological
2	Biological Monitoring: defining individual susceptibility
2	Training in Occupational Medicine
2	Legislation on prevention of occupational diseases and accidents at work
2	Elements of insurance against accidents and occupational diseases
2	Health effects of work activities with risks related to the organization of work (shift work, posture, MMC, stress)
2	Findings of suitability to the specific job: correlation between risk, clinical and instrumental data, environmental and legislative references

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 ISBN 978-8821434242

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	50406-Scienze umane, politiche della salute e management sanitario
INDIVIDUAL STUDY (Hrs)	75
COURSE ACTIVITY (Hrs)	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
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

COMPENDIO DI MEDICINA DEL LAVORO (G. Lacca, A. Miceli, S. Bastone) - Edizioni Minerva Medica (2019)
Lorenzo Alessio, Pietro Apostoli "Manuale di medicina del lavoro e igiene industriale" - Piccin-Nuova Libreria

AMBIT	50409-Medicina e sanità pubblica e degli ambienti di lavoro e scienze medico legali
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)
3	The organizational risks (manual handling of loads, VDU, awkward postures)
3	Stress index and thermal comfort
3	The evaluation of work-related stress
3	Organ pathology

MODULE MEDICAL STATISTICS

Prof. MARCO ENEA - Sede HYPATIA, - Sede HYPATIA, - Sede IPPOCRATE, - Sede IPPOCRATE

SUGGESTED BIBLIOGRAPHY

Libro di testo

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

Altri Libri consigliati

1. Daniel W.W., Biostatistica, Edizione EdiSES

2. Peat,J, Barton B. Medical statistics A Guide to Data Analysis and Critical Appraisal. Blackwell Publishing Ltd 2005

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

AMBIT

50405-Inglese scientifico e abilità linguistiche, informatiche e relazionali, pedagogia medica, tecnologie avanzate e a distanza di informazione e comunicazione

INDIVIDUAL STUDY (Hrs)

45

COURSE ACTIVITY (Hrs)

30

EDUCATIONAL OBJECTIVES OF THE MODULE

The course is aimed to introduce the statistical methodology useful to the comprehension of medical literature. The topics include the understanding of fundamentals of descriptive and inferential statistics. Students will be able to interpret statistical methods and results of scientific articles. The students will do teamwork to analyze appropriate scientific literature, as chosen by the Professor

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
4	Measures of mean and variability
4	Elements of probability theory. Bayes Theorem. Measures of accuracy of diagnostic tests
3	Theoretical distribution for continuous variables: Gauss or Normal distribution. Normal approximation of binomial distribution
3	Central Limit Theorem. Sample distributions of sample mean and sample frequency
4	Estimate of mean and frequency. Confidence Intervals
4	Statistical tests on mean and frequency. The p-value and the statistical power of tests
2	Measuring risk: Odds ratio and Relative Risk, with confidence intervals
2	Statistical tests of association. The Chi-square test

MODULE GENERAL AND APPLIED HYGIENE

Prof. WALTER MAZZUCCO - Sede HYPATIA, - Sede HYPATIA

SUGGESTED BIBLIOGRAPHY

- Vitale F, Zagra M. Igiene, epidemiologia ed organizzazione sanitaria orientate per problemi. Elsevier, 2012. ISBN: 8821434249

- Ricciardi W. Igiene, Medicina Preventiva e Sanita' Pubblica. Idelson Gnocchi, 2012. ISBN: 8879475622

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

EDUCATIONAL OBJECTIVES OF THE MODULE

The Integrated Course of Hygiene and Occupational Medicine aim to provide students with knowledge and skills about disease prevention and promotion of community and individual's health, with a focus on occupational setting. It also includes an introduction on Italian National Health System, highlighting its structural, organizational and management aspects.

The student will then be introduced to the concepts of determinants of health/disease and health surveillance systems; will be conducted to understand the mechanisms of outbreak and spread of occupational and non-occupational diseases and their impact on community; will learn principles of preventive medicine and health promotion strategies; and will be able to interpret the main laws on healthcare organization and primary health care.

By the end of this course, students will be also able to have a critical approach in the analysing and interpreting epidemiological data and specific risk indicators, in defining the nature of a health problems and to design and implement strategy to deal with them, both at an individual and collective level.

Module 1: HYGIENE

SPECIFIC AIMS

The major specific aims of this course are to provide scientific and professional knowledge in the fields of preventive medicine, health education and health promotion, planning, organization and evaluation of health technologies and health services, food safety, safety in the living and working environment, epidemiological studies and use of health information systems, health legislation and the evidence of efficacy for the prevention and health care.

SYLLABUS

Hrs	Frontal teaching
2	Definition and aims of Hygiene, Epidemiology, Preventive Medicine and Public Health.
3	Demographic parameters of interest for health and population health indicators.
5	Epidemiological methodology: observational and experimental studies. Measures of association and risk. Causal criteria. Bias and confounding.
2	Definition and general aim of Primary, Secondary and Tertiary Prevention.
3	Epidemiology and prevention of infectious diseases: control, elimination and eradication.
4	Epidemiology of major diseases preventable by vaccination and vaccines available. Vaccination schedule.
2	Care-associated infections.
3	Food Safety: self-control and foodborne illness.
4	Environment hygiene: environmental matrices, air pollution, water and its cycle, waste management and connection to human health.
2	Biohazard
3	Disinfection and sterilization.
3	Epidemiology of chronic degenerative diseases and prevalence of the associated risk factors.
2	Epidemiology of cancer.
3	Cancer screening.
3	Health organization and management in Italy: National Health Plan, Health Authorities, Essential Levels of Care, Accreditation and Hospital discharge records (SDO)
2	Principles of Pharmaco-economy
2	Clinical risk management.
Hrs	Practice
2	Use of health databases and research tools (Medline, Pubmed).

MODULE GENERAL AND APPLIED HYGIENE

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

SUGGESTED BIBLIOGRAPHY

F.Vitale, M.Zagra - Igiene, Epidemiologia ed Organizzazione Sanitaria orientate per problemi. Elsevier ISBN 978-8821434242
W. Ricciardi - Igiene Medicina Preventiva Sanita' Pubblica Monduzzi Editore, Bologna
C. Signorelli - Igiene edilizia ed Ambientale, Societa' Editrice Universo
Damiani-Ricciardi - Manuale di Programmazione e Organizzazione Sanitaria, Idelson-gnocchi
Faggiano-Donato-Barbone - Manuale di Epidemiologia per la Sanita' Pubblica

AMBIT	50406-Scienze umane, politiche della salute e management sanitario
INDIVIDUAL STUDY (Hrs)	75
COURSE ACTIVITY (Hrs)	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
5	- Definition and objectives of Hygiene and Public Health - Demographic parameters of interest for health and health indicators of a population
5	- Current healthcare flows. - Definition and general objectives of Primary, Secondary and Tertiary level of Prevention with related application methods
5	Epidemiological studies: descriptive and observational epidemiology. Experimental epidemiology
5	- Strategic objectives of prevention: control , elimination and eradication of diseases. -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 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	Diseases preventable by hexavalent vaccination. MPRV and anti-rotavirus vaccine. Anti-meningococcal and anti HPV vaccination antipneumococcal e anti zoster vaccination
5	Epidemiology and chronic-degenerative diseases. Primary and secondary prevention of chronic degenerative diseases
5	- Screenings - 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
MEDICAL STATISTICS**

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

SUGGESTED BIBLIOGRAPHY

Libro di testo

Triola MM Triola MF Roy J, Fondamenti di statistica per le discipline biomediche, 2022 Pearson Italia, Isbn 9788891915443

Altri Libri consigliati

1. Daniel W.W. Cross C.L., Biostatistica, III Edizione EdiSES, ISBN 978-88-3319-041-9

2. Bacchieri A., Della Cioppa G. Fondamenti di ricerca clinica, Springer ISBN 88-470-0211-7

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

EDUCATIONAL OBJECTIVES OF THE MODULE

The course is aimed to introduce the statistical methodology useful to the comprehension of medical literature. The topics include the understanding of descriptive and inferential statistics. Students will be able to interpret statistical methods and the results of scientific articles. The students will do teamwork to analyze appropriate scientific literature, as chosen by the Professor

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
4	Measures of mean and variability
4	Elements of probability theory. Bayes Theorem. Measures of accuracy of diagnostic tests
3	Theoretical distribution for continuous variables: Gauss or Normal distribution. Normal approximation of binomial distribution
3	Central Limit Theorem. Sample distributions of sample mean and sample frequency
4	Estimate of mean and frequency. Confidence Intervals
4	Statistical tests on mean and frequency. The p-value and the statistical power of tests
2	Measuring risk: Odds ratio and Relative Risk, with confidence intervals
2	Statistical tests of association. The Chi-square test