

# UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Promozione della Salute, Materno-Infantile, di Medicina Interna e Specialistica di Eccellenza "G. D'Alessandro"				
ACADEMIC YEAR	2023/2024				
MASTER'S DEGREE (MSC)	HEALTH PROFESSION OF PREVENTION SCIENCES				
INTEGRATED COURSE	SCIENCE OF PREVENTION - INTEGRATED COURSE				
CODE	09494				
MODULES	Yes				
NUMBER OF MODULES	2				
SCIENTIFIC SECTOR(S)	MED/42				
HEAD PROFESSOR(S)	AMODIO E	EMANL	JELE	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)	MAIDA CA MASSIMO		0	Professore Associato	Univ. di PALERMO
	AMODIO E	EMANU	JELE	Professore Associato	Univ. di PALERMO
CREDITS	8				
PROPAEDEUTICAL SUBJECTS					
MUTUALIZATION					
YEAR	2				
TERM (SEMESTER)	1° semeste	er			
ATTENDANCE	Mandatory				
EVALUATION	Out of 30				
TEACHER OFFICE HOURS	AMODIO EI	MANUE	LE		
	Tuesday	14:00	16:00	SEZIONE DI IGIENE, DIPART LA PROMOZIONE DELLA SA INFANTILE, MEDICINA INTEF ECCELLENZA "G.D'ALESSAN VESPRO 133 PALERMO, PIA	'IMENTO DI SCIENZE PER LUTE, MATERNO RNA E SPECIALISTICA DI IDRO" (PROMISE), VIA DEL NO TERRA
	Thursday	14:00	16:00	SEZIONE DI IGIENE, DIPART LA PROMOZIONE DELLA SA INFANTILE, MEDICINA INTEF ECCELLENZA "G.D'ALESSAN VESPRO 133 PALERMO, PIA	IMENTO DI SCIENZE PER LUTE, MATERNO RNA E SPECIALISTICA DI NDRO" (PROMISE), VIA DEL NO TERRA
	MAIDA CARMELO MASSIMO				
	Monday	09:30	11:30	Dipartimento di Scienze per la sezione di Igiene, Via del Vesp	Promozione della Salute, pro 133.
	Thursday	09:30	11:30	Dipartimento di Scienze per la sezione di Igiene, Via del Vesp	Promozione della Salute, pro 133.

### DOCENTE: Prof. EMANUELE AMODIO

PREREQUISITES	Knowledge of the general principles of epidemiological methodology and prevention sciences applied to human health and the environment
LEARNING OUTCOMES	1. Knowledge The course aims to provide students with theoretical and methodological tools aimed at developing knowledge in the field of needs analysis both in relation to the healthcare offer and in relation to the broader concept of health and the environment in a one-health logic. Specifically, the student is expected to acquire basic knowledge on how to measure the need for health and its relationship with the concepts of health demand and health supply, also through the evaluation of integrated assistance and prevention models (PDTA, chronic care model) or the evaluation of the performance of health services. The course will describe the main sources of data from which to obtain information on health needs and will address the main regional and national epidemiological surveillance networks that allow the monitoring and control of important risk factors for human health both in terms of infectious pathologies and diseases chronic-degenerative Finally, the student must possess knowledge of the main indicators for the evaluation of the environment-health combination and the quality of the health services offered to the population in all its dimensions, including the safety of care.
	2. Knowledge and understanding Ability to analyze and understand the health needs of the general population and of the various potential target groups (pediatric population, elderly population, subjects with chronic degenerative diseases, etc.). Ability to analyze and understand the principles of inappropriate provision applied to the governance of the healthcare offer. Ability to analyze and understand environmental risks with an impact on human health. Ability to understand the meaning of health indicators applied to the evaluation of the health supply, both in terms of prevention and diagnosis and therapy, as well as environmental quality indicators. Ability to analyze and understand the critical elements that can be identified by epidemiological surveillance networks.
	3. Ability to apply knowledge and understanding The student will have to acquire the ability to autonomously carry out a micro- planning of the health need analysis by identifying the correct source of information to be evaluated, the health indicators to be taken into consideration and the targets to be proposed to measure the achievement of health objectives. At the same time, the student will have to know how to identify the main epidemiological surveillance networks to be consulted to obtain information on environmental risk factors, both locally and regionally or nationally, correctly interpreting the meaning of the health indicators used in the epidemiological field.
	4. Making judgments On the basis of knowledge, understanding and application of what has been learned, the student must be able to develop independent judgment in formulating questions of health interest and identify critical issues that may derive from the environment or from inappropriate health planning and supply activities. Furthermore, he must be able to express critical judgments on health and performance indicators of healthcare activities in order to identify possible areas and strategies for improvement. Overall, the student must be able to judiciously express and recognize the complex interactions between human health, the environment, prevention and surveillance activities and, finally, the organization of local and non-local health services.
ASSESSMENT METHODS	The evaluation of the student's knowledge will consist of an oral test of the two teaching courses (integrated course). The oral exam consists of an interview which will be aimed at verifying the knowledge, full understanding and critical skills regarding the topics covered in the integrated course. The evaluation is out of thirty, as shown in the diagram below: - Mark: 30 - 30 cum laude - Evaluation: Excellent (ECTS grade A-A+ excellent) Outcome: Excellent knowledge of the teaching contents. The student demonstrates high analytical-synthetic ability and is able to apply knowledge to solve highly complex problems. - Mark: 27 - 29 - Evaluation: Excellent (ECTS grade B very good) Outcome: Excellent knowledge of the teaching contents and excellent language skills. The student demonstrates analytical-synthetic skills and is able to apply knowledge to solve problems of medium and, in some cases, even high complexity. - Mark: 24 - 26 - Evaluation: Good (ECTS grade C Good) Outcome: Good knowledge of the teaching contents and good language skills. The student is able to apply the knowledge to solve problems of medium complexity. - Grade: 21 - 23 - Evaluation: Fair (ECTS grade D satisfactory) Outcome: Fair

	knowledge of the course contents, in some cases limited to the main topics.
	independently apply the acquired knowledge
	independentity apply the acquired knowledge.
	- Mark: 18 - 20 - Evaluation: Sufficient (ECTS grade E sufficient) Outcome:
	Minimal knowledge of the teaching contents, often limited to the main topics.
	Modest ability to use the specific language of the discipline and to independently
	apply the acquired knowledge.
	- Mark: 1 - 17 - Evaluation: Insufficient (ECTS grade F Fail) Outcome: Does not
	have an acceptable knowledge of the main teaching contents. Very little or no
	ability to use the specific language of the discipline and to independently apply
	the acquired knowledge. Exam failed.
TEACHING METHODS	Face-to-face lessons

#### MODULE HEALTH AND ENVIRONMENTAL MONITORING

Prof. CARMELO MASSIMO MAIDA

SUGGESTED BIBLIOGRAPHY

- Igiene e sanità pubblica – Salute e ambiente – P.A. Bertazzi, I. Grappasonni – PICCIN – ISBN: 9788829927999 - Dispense e materiale didattico forniti dal Docente		
AMBIT	20437-* Scienze dell'assistenza sanitaria	
INDIVIDUAL STUDY (Hrs)	68	
COURSE ACTIVITY (Hrs)	32	

#### EDUCATIONAL OBJECTIVES OF THE MODULE

The course aims to provide students with more in-depth knowledge of the health and well-being of populations about the environmental state. The main environmental matrices (air, water and soil) and their possible implications as determinants of health for humans and ecosystems will be described. The main epidemiological studies on environmental issues will be analyzed, and methodological tools for assessing environmental quality and monitoring the state of health of the environment and humans will be provided through the analysis of environmental matrices (Wastewater based epidemiology). Based on knowledge, understanding and application of what has been learned, the student must develop independent judgment in formulating questions of environmental interest, identifying critical issues and formulating essential judgments based on the analytical results of studies on environmental issues.

## **SYLLABUS**

Hrs	Frontal teaching
3	Introduction to the course. Concept of health and determinants of health. Role of the environment as a determinant of health. Environment and human health: relationships between the physical, biological, and social environment and human health. Environmental sustainability and One Health approach.
4	Description of environmental matrices: air, water and soil: characteristics, vulnerability and role as health determinants.
3	Chemical and microbiological contaminants in the environment and their impact on human health.
6	Water. Water for human consumption: hygienic problems related to the human use of water. The microbiological and chemical parameters indicated in the legislation in force for the judgment of potability. Potability requirements. Judgment and controls of potability of water. Analysis and corrections of the water's chemical, physical, organoleptic and biological characteristics. Methods of purification. Hygienic problems related to purification processes.
6	Bathing water: microbiological and chemical parameters indicated in current legislation. Definition of quality standards and methods for their evaluation. Wastewater: purification processes, quality assessment, reuse of wastewater and use of new epidemiological approaches for monitoring health status, habits and the spread of pathogens in the community.
2	Air Pollution: Effects of air pollution on human health. Regulations. Sanitary problems. Main Italian and international epidemiological studies.
2	Land use and waste: risks for human health and ecosystems.
2	Climate changes as a risk factor for the health of populations and ecosystems.
2	Health impact assessment (VIS) and risk analysis
2	Environmental protection and surveillance as a tool for disease prevention.

## MODULE HEALTH NEEDS ANALYSIS

Prof. EMANUELE AMODIO

## SUGGESTED BIBLIOGRAPHY

- Manuale di Programmazione e Organizzazione Sanitaria – QUARTA EDIZIONE. Damiani, Specchia, Ricciardi. IDELSON – GNOCCHI ISBN: 9788879477642

- Igiene, epidemiologia e organizzazione sanitaria orientate per problemi di Francesco Vitale, Michele Zagra. Elsevier. I Edizione. ISBN: 8821434249

- Dispense e materiale didattico forniti dal Docente

AMBIT	20437-* Scienze dell'assistenza sanitaria
INDIVIDUAL STUDY (Hrs)	68
COURSE ACTIVITY (Hrs)	32

## EDUCATIONAL OBJECTIVES OF THE MODULE

The course aims to provide students with theoretical and methodological tools aimed at developing knowledge in the field of halthe need analysis both in relation to the health offer and in relation to the broader concept of health.

Specifically, the student is expected to acquire basic knowledge on how to measure the need for health and its relationship with the concepts of health demand and health supply, also through the evaluation of integrated assistance and prevention models (PDTA, chronic care model...) or the evaluation of the performance of health services.

The course will describe the main sources of data from which to obtain information on the health needs and to have knowledge about the main indicators for the evaluation of the environment-health combination and the quality of the health services offered to the population in all its dimensions, including safety of the cures.

The student will acquire the ability to analyze and understand the health needs of the general population and of the various potential target groups (pediatric population, elderly population, subjects with chronic degenerative diseases, etc.). The teaching will also aim to enhance the ability to analyze and understand the principles of inappropriate provision applied to the governance of the health supply, allowing students to acquire the ability to autonomously carry out a micro-planning of the analysis of the health need by identifying the correct source of information to evaluate, the indicators of health to be taken into consideration and the targets to be proposed to measure the achievement of health objectives.

On the basis of knowledge, understanding and application of what has been learned, the student must be able to develop independent judgment in the formulation of questions of health interest, identification of critical issues that may derive from inappropriate health planning and activities. Furthermore, the student must be able to express critical judgments on health and performance indicators of healthcare activities in order to identify possible areas and strategies for improvement.

# SYLLABUS

Hrs	Frontal teaching
2	Introduction to planning, purchasing and control activities in the health sector.
3	Definition of the concept of health need, health demand and supply network. Inappropriateness in healthcare and prevention.
3	Epidemiological indicators useful for estimating health needs.
3	The Planning Document as a tool for planning, measuring and monitoring health outcomes in the local area
5	The sources of health data useful for identifying health needs: the SDOs, the outpatient specialist, the EMUR flow, the pharmaceuticals, the Cedap, the RENCAM.
3	The linkage of health sources as an advanced tool for measuring the need for health.
3	Ad hoc surveys as a need analysis tool
3	Knowledge, use and interpretation of indicators obtained from health performance assessment tools: the Programma Nazionale Esiti and other performance assessment systems
Hrs	Practice
4	Group work on planning hypotheses of public health interventions applicable to a local context and resolution of public health problems.
3	Reading and critical discussion of planning documents and performance evaluation dashboards in the health sector.