UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Biomedicina, Neuroscienze e Diagnostica avanzata		
ACADEMIC YEAR	2020/2021		
MASTER'S DEGREE (MSC)	HEALTH PROFESSIONS REHABILITATION SCIENCES		
INTEGRATED COURSE	APPLIED COMPUTER SCIENCE AND EPIDEMIOLOGY FOR HEALTHCARE MANAGEMENT - INTEGRATED COURSE		
CODE	16970		
MODULES	Yes		
NUMBER OF MODULES	3		
SCIENTIFIC SECTOR(S)	MED/42, INF/01, ING-INF/05		
HEAD PROFESSOR(S)	IMMORDINO PALMIRA	Ricercatore a tempo determinato	Univ. di PALERMO
OTHER PROFESSOR(S)	VAIANA GIOACCHINO	Professore a contratto	Univ. di PALERMO
	IMMORDINO PALMIRA	Ricercatore a tempo determinato	Univ. di PALERMO
	FERRARA GIUSEPPE	Professore a contratto	Univ. di PALERMO
CREDITS	9		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	2		
TERM (SEMESTER)	2° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	**FERRARA GIUSEPPE**		
	Monday 08:00 10:00 Aule nuove di Medicina - Via Parlavecchio.Cortesemente inviare una email di avviso.		
	IMMORDINO PALMIRA		
	Thursday 14:00 16:00 studio del docente presso la sezione di Igiene del dipartimento promise via del vespro, 133 90127 Palermo (policlinico). Si prega di concordare l'appuntamento previa email al docente palmira.immordino@unipa.it		

DOCENTE: Prof.ssa PALMIRA IMMORDINO

PREREQUISITES	Basic concepts of health statistics
LEARNING OUTCOMES	Knowledge and understanding ability To be able to indicate the main strategies of prevention and health promotion, developing the ability to detect condition that need a specialist consultation. To know the main aspect of prevention strategies. To acquire basic skills of the specialist discipline of the course and their specific languages. To understand health determinants, health and disease risk factors. To know epidemiology and natural history of acute and chronic diseases. To know and understand basis of epidemiology, preventive medicine, health economics and health management. To be able to select and use ICT helpful to professional practice in a cooperation contest, also trough internet support and to share results of scientific research. To know the appropriate use of human source, diagnostic intervention, therapeutic strategies and care technologies. To know the main health/disease determinants: life style, genetic, demographic, environmental, socio-economic, psychological and cultural factors. To be aware of the importance of these determinants on population and individual health and to be able to take appropriate preventive decisions to protect human health from accidents and disease, promoting individual and community health. To know international health status, global burner of disease, global trend on morbidity and mortality, the impact of migration, trade and environment on health and the role of international agency and organization. To understand the need of accountability collective interventions in health promotion which require close collaboration with the population, and a multidisciplinary approach, including health professionals and also intersectoral collaboration. To know 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 show a good understanding of the mechanisms at the basis of equity and health care access, effectiveness and quality of care. To knowing how to the appropriate use local surveillance data, regional and national, of demography and epidemiology in health decisions. To know the basics principles to be able to take right decisions, when necessary, in the relevant issues to health care. To Make critical judgments. To be able to evaluate medical implications of the most common issues of general hygiene. To acquire ability to integrate knowledge and handle complexity, and to make judgments based on incomplete or limited information, including reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments. To be able to fully expose the nature and hygiene practices solutions. Health applicable to the prevention of high prevalence diseases and social welfare impact. Get communication skills To know how to clearly communicate conclusions annd knowledge to specialist and non-specialists. To be able to expose the deeper meaning of prevention and direct and indirect benefits for individual and commuity related to it. Being able to fully expose characterizing points useful for implement health and hygiene practices solutions on individuals and on collectivity. Get learning ability Being able to collect, organize and correctly interpret health and biomedical information and the different resources and databases available. Knowing how to use the technology associated to information and communications as right support to diagnostic practices, therapeutic and preventive strategies and surveillance and monitoring process of the health status. Ability to update their knowledge by consulting scientific publications. Ability to maintain an updated learning through publications its scientific sectors concerned. To get the ability to perform, using the specific knowledge acquired during the course, in-depth courses and specialized seminars.
ASSESSMENT METHODS	The exam consists in a written test, which can be integrated by an optional oral examination on student's request. 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 10 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. 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. 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" 18-20: 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). FINAL EVALUATION OF THE INTEGRATED COURSE An average final score will be provided from the assessments performed for each individual module.
TEACHING METHODS	Frontal lessons with ppt with power point support. Classroom exercises.

MODULE
INFORMATION PROCESSING SYSTEMS

Prof. GIOACCHINO VAIANA

SUGGESTED BIBLIOGRAPHY	
Govoni M., Marone U., La patente europea del computer - Con Syllabus 4.0. Editore: Simone per la scuola, Napoli, 2004.	
AMBIT	20407-Scienze informatiche applicate alla gestione sanitaria
INDIVIDUAL STUDY (Hrs)	51
COURSE ACTIVITY (Hrs)	24
EDUCATIONAL OBJECTIVES OF THE MODULE	

Know how to choose between the use of a proprietary application or an open souce.
Drafting a complex document structured in chapters, header and footer, illustrations, diagrams, tables, computer tables using an application for text processing
Know how to build a spreadsheet structured into multiple pages and integral formulas, calculations on dates, row totals and column graphs, data tables.
Know make a presentation of content, including multimedia, to support teaching activities or relationship
Know how to build easy relational databases and data interrogation procedures contained therein
Knowing how to use email, the PEC and the search engines and share data via the cloud
Knowing how to set up communication activities through social networks and thematic platforms

SYLLABUS

Hrs	Frontal teaching
2	Proprietary Software and Open souce projects
6	Applications (software) for: digital signatures, encryption, security (antivirus, firewall)
12	Applications for individual productivity: word processing, spreadsheet, presentation and desktop publishing, databases, vector and raster graphics, diagramming
4	Communication and sharing across the Internet (cloud spaces, social networking, forums, chat, e-mail, PEC) and thematic platforms (research, publication, etc.)

MODULE
COMPUTER SCIENCE

Prof. GIUSEPPE FERRARA

SUGGESTED BIBLIOGRAPHY	
Tibone F., Tecnologie Informatiche LME essenziale. Editore: Zanichelli, Bologna, 2010	
AMBIT	20391-Scienze propedeutiche
INDIVIDUAL STUDY (Hrs)	51
COURSE ACTIVITY (Hrs)	24
EDUCATIONAL OBJECTIVES OF THE MODULE	

Know how they represented the information inside the computer
Understand the characteristics hardware of a personal computer (PC)
Know the main protocols used by the local network and Internet and their function
Know how to install application software and configure the use of a PC in LAN
Know how to configure a PC to be used by several people
Know how to configure a PC for you to access the data on it is via credentials and data are protected from loss or accidental damage
Knowing what is and what is a database

SYLLABUS

Hrs	Frontal teaching
2	Analog and Digital: encoding of writing, numbers, images (raster and vector), movies and audio
4	Architecture hardware and software of a personal computer
3	Networks, devices and internetworking protocols LAN and WAN
5	Operating Systems (Windows, MAC-OS, Linux) and application programs
2	World Wide Web protocols and languages
3	Database and SQL elements
3	Security and Data Protection
2	Overview of Digital Administration Code and the Privacy Code

MODULE
GENERAL AND APPLIED HYGIENE

Prof.ssa PALMIRA IMMORDINO

SUGGESTED BIBLIOGRAPHY	
Vitale F, Zagra M. Manuale di Igiene ed Organizzazione Sanitaria, Elsevier Harold A. Kahn, Christopher T. Sempos. Statistical methods in epidemiology, Oxford University	
AMBIT	20394-Statistica ed epidemiologia
INDIVIDUAL STUDY (Hrs)	51
COURSE ACTIVITY (Hrs)	24
EDUCATIONAL OBJECTIVES OF THE MODULE	
Aim of this module is 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	Introduction to Epidemiology and Public Health. Concept of health, disease, health promotion, health education and Primary, Secondary and Tertiary Prevention.
2	Demographic parameters of interest for health and population health indicators. Population registers.
2	Epidemiological methodology.
2	Measures of Frequence and association. Incidence, prevalence, relative risk, attributable risk, odds ratio.
1	Descriptive, analytic and experimental epidemiology.
2	Design of epidemiological studies. Observational studies. Descriptive and analytic studies.
2	Methodology of case-control studies. Methodology of cohort studies, retrospective and prospective.
2	Experimental study.
2	Systematic review and meta-analysis.
1	Epidemiology of cancers, infective disease, health service, and social epidemiology.
1	Screening and diagnostic test.
1	Genetic tests and population genomic.
1	Other application of epidemiology: Health technology assessment. Health Impact Assessment.
1	Health informative system.
1	National health service: law and organization.

Hrs	Practice
1	Use of health databases and research tools (Medline, Pubmed).