



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Economiche, Aziendali e Statistiche
ACADEMIC YEAR	2019/2020
FIRST CYCLE COURSE	STATISTICS FOR DATA ANALYSIS
SUBJECT	EPIDEMIOLOGY
TYPE OF EDUCATIONAL ACTIVITY	C
AMBIT	10721-Attività formative affini o integrative
CODE	03026
SCIENTIFIC SECTOR(S)	MED/42
HEAD PROFESSOR(S)	MAZZUCCO WALTER Professore Associato Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	6
INDIVIDUAL STUDY (Hrs)	102
COURSE ACTIVITY (Hrs)	48
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	2
TERM (SEMESTER)	2° semester
ATTENDANCE	Not mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	MAZZUCCO WALTER Friday 10:00 12:00 Primo piano Edificio via del Vespro 133 presso ex Istituto di Igiene del Dipartimento PROSAMI

DOCENTE: Prof. WALTER MAZZUCCO

PREREQUISITES	Basic knowledge on demographics and statistics
LEARNING OUTCOMES	<p>Knowledge and understanding Acquisition of: 1. Correct specific language of the discipline to understand it and to use it appropriately; 2. the statistical techniques used in epidemiology</p> <p>Applying knowledge and understanding Be able to: 1 identify the different types of clinical trials and their statistical techniques; 2. choose indexes and statistical techniques depending on the type of epidemiological study.</p> <p>Make critical judgments Be able to identify and communicate the characterizing elements of an epidemiological study.</p> <p>Get communicative skills Be able to: orally explain what has been learned about the salient features of epidemiological studies in statistical terms.</p> <p>Get learning ability Be able to : 1. consult the scientific statistical literature in the medical field; 2. increasing knowledge acquired in the course to further advanced studies in biostatistics and medical statistics , 3. revise what they have learned adapting it to the conditions and limits from any customer and the type of problem to be solved, 4. develop problem-solving techniques in terms of relationship between variables.</p>
ASSESSMENT METHODS	<p>The exam consists of a written test, which can be integrated by an optional oral examination.</p> <p>WRITTEN TEST The written test is designed to explore knowledge and abilities acquired by the student as well as his ability to use a proper epidemiological language. The 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 and complete answers to the questions proposed 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>ORAL EXAMINATION (optional) The oral examination focuses as first on a deeper investigation of the argument proposed within the written test whose answers were incorrect and/or not exhaustive. The number of questions ranges from 1 to 2, independently from the written test.</p> <p>FINAL EVALUATION METHOD The final evaluation will take into account three dimensions: i) mastery of the topics; ii) ability to apply knowledge and iii) the property of language. The final vote for who will support the oral test will be derived from an integration of the two evaluations (test and oral examination).</p> <p>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>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</p>

	<p>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>
EDUCATIONAL OBJECTIVES	The course aims to provide students with the basic knowledge needed to apply the epidemiological method and to understand the interconnections with the statistical methodology.
TEACHING METHODS	Frontal teaching
SUGGESTED BIBLIOGRAPHY	<p>Vitale F, Zagra M. Manuale di Igiene ed Organizzazione Sanitaria, Elsevier Harold A. Kahn, Christopher T. Sempos. Statistical methods in epidemiology, Oxford University Mazzucco W, Tuminello M, Nardello N, Giambalvo O, Cicala V, Lo Bianco L, Turrisi A, Casuccio A, Agro' A. Autism spectrum disorder in Italy: demand for an integrated epidemiological surveillance system. EUROMEDITERRANEAN BIOMEDICAL JOURNAL 2015, 10 (23):266-272 Mazzucco W, Lacca G, Cusimano R, Provenzani A, Costa A, Di Noto AM, Massenti MF, Leto-Barone MS, Di Lorenzo G, Vitale F. Prevalence of sensitization to Anisakis Simplex among professionally exposed population in Sicily. Archives of Environmental & Occupational Health. 2012 Apr;67(2):91-7.</p>

SYLLABUS

Hrs	Frontal teaching
4	Introduction to Epidemiology and Public Health. Concept of health, disease, health promotion, health education and Primary, Secondary and Tertiary Prevention.
3	National health service: law and organization.
3	Health informative system
3	Epidemiological methodology
4	Measures of Frequency and association Incidence, prevalence, relative risk, attributable risk, odds ratio
3	Descriptive, analytic and experimental epidemiology
3	Design of epidemiological studies Observational studies Descriptive and analytic studies
4	Methodology of case-control studies Methodology of cohort studies, retrospective and prospective
3	Experimental study
3	Systematic review and meta-analysis
3	Epidemiology of cancers, infective disease, health service, and social epidemiology
3	Screening and diagnostic test
2	Genetic test and population genomic
4	Other application of epidemiology: Health technology assessment, Health Impact Assessment
3	Use of health databases and research tools