Anno Accademico 2021/2022

RESEARCH METHODOLOGY AND MEDICAL STATISTICS	
Enrollment year	2021/2022
Academic year	2021/2022
Regulations	DM270
Academic discipline	MED/01 (MEDICAL STATISTICS)
Department	DEPARTMENT OF PUBLIC HEALTH, NEUROSCIENCE, EXPERIMENTAL AND FORENSIC MEDICINE
Course	SCIENCE AND TECHNIQUE OF ADAPTED AND PREVENTIVE MOTOR ACTIVITY
Curriculum	PERCORSO COMUNE
Year of study	1°
Period	1st semester (04/10/2021 - 21/01/2022)
ECTS	3
Lesson hours	24 lesson hours
Language	Italian
Activity type	WRITTEN TEST
Teacher	MONTOMOLI CRISTINA (titolare) - 2 ECTS GENTILINI DAVIDE - 1 ECTS
Prerequisites	The contents of the course of Medical Statistics of the Three Year Degree in Sport Science, in particular descriptive statistical techniques (statistical measures, graphs and tables)
Learning outcomes	The main aim of the course is to provide knowledge about a rigorous scientic approach to sport science. At the end of the course the student will learn the elements to perform a statistical ananlysis and to properly understand the results of the statistical analysis, in particular as concern the interpreation of the scientific evidence deriving from the correct application of inferential statistics techniques.
Course contents	Topics covered will be: Main study designs in research

The sampling distribution and the sampling error
Inferential statistics: hypothesis testing and statistical test
The X2 test
The Student t test for comparison of two samples
The meaning of the p-value
Type I and II errors, the power of a test
Application will be performed using Excel

Teaching methods	The course will be structured with the methodology of problem-solving, with presentation and discussion of practical examples and critical analysis of articles published in sport science literature. Excel will also be used to perform statistical analysis of data sets derived from research in the sports field.
Reccomended or required readings	Martin Bland STATISTICA MEDICA, Apogeo, 2009
Assessment methods	Practical Exam on the Computer (performing a statistical analysis of a real data set coming from a research in the sport field using Excel).
Further information	The teacher meets students by appointment at the Dip.to Sanità Pubblica, Medicina Sperimentale e Forense, U.O. di Biostatistica e Epidemiologia Clinica, Via Forlanini 2, e-mail: cristina.montomoli@unipv.it
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile