# UNIVERSITÀ DEGLI STUDI DI PALERMO

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| **DEPARTMENT** | Medicina di Precisione in area Medica, Chirurgica e Critica |
| **ACADEMIC YEAR** | 2016/2017 |
| **MASTER'S DEGREE (MSC)** | DENTISTRY |
| **INTEGRATED COURSE** | BEHAVIOURAL SCIENCES AND SCIENTIFIC METHODOLOGY - INTEGRATED COURSE |
| **CODE** | 17615 |
| **MODULES** | Yes |
| **NUMBER OF MODULES** | 2 |
| **SCIENTIFIC SECTOR(S)** | MED/01, M-PSI/01 |
| **HEAD PROFESSOR(S)** | MATRANGA DOMENICA Professore Ordinario Univ. di PALERMO |
| **OTHER PROFESSOR(S)** | MICELI SILVANA Professore Associato Univ. di PALERMO<br>MATRANGA DOMENICA Professore Ordinario Univ. di PALERMO |
| **CREDITS** | 6 |
| **PROPAEDEUTICAL SUBJECTS** | |
| **MUTUALIZATION** | |
| **YEAR** | 1 |
| **TERM (SEMESTER)** | 1° semester |
| **ATTENDANCE** | Mandatory |
| **EVALUATION** | Out of 30 |
| **TEACHER OFFICE HOURS** | **MATRANGA DOMENICA**<br>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<br>**MICELI SILVANA**<br>Wednesday 09:30 12:30 Edificio 15, 6 piano (studio docente) |

**DOCENTE:** Prof.ssa DOMENICA MATRANGA

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| **PREREQUISITES** | The student must possess expertises and knowledges required to pass the admission test. |
| **LEARNING OUTCOMES** | LEARNING EXPECTED RESULTS<br>Knowledge and comprehension<br>Knowledge and understanding of basic principles, foundations and language in the field of statistics and general psychology.<br>Ability to use knowledge and comprehension<br>Ability to perform simple statistical analyses in the context of dentistry; ability to analyse, synthesize and argumenting ; ability to think critically and to find connections, referring to the topics of the course.<br>Making judgments<br>Capacity to organizing data diachronically, of personal evaluation and synchronical utilisation of achieved expertises.<br>Communication ability<br>Capacity to express the acquired knowledge with appropriate language.<br>Learning ability<br>Make the student able to learn in autonomous manner, to process and transmit the acquired knowledge |
| **ASSESSMENT METHODS** | Structured exam made of a written test for Medical Statistics and an oral test for General Psychology. The exam aims to assess knowledge and comprehension of all the topics, autonomy of making judjments, ability to use the acquired knowledge, appropriate language.<br>The written test of Medical Statistics consists of a questionnaire made of open and synthetic questions that aim to evaluate the "knowledge" and the "know-how" acquired by the student, about all topics included in the programme, with regards to the suggested references and the materials provided by the teacher.<br>The oral exam of General Psychology will consist of an interview that is to ascertain the possession of skills and subject knowledge provided by the course. The candidate will have to answer at least two-three questions posed orally, on all parties covered by the program, with reference to the recommended texts.<br>The assessment is carried out of thirty. The pass mark will be reached when the student shows knowledge and understanding of the subjects at least in general terms; furthermore, the student will also have to show presentation and argumentative skills as to allow the transmission of his/her knowledge to the examiner. Below this threshold, the examination will be insufficient. The more, however, the student will be able to find own connections between the topics of the course and be able to go into detail on the subject of discipline, the more the assessment is positive.<br>The assessment is done according to the following scheme:<br>A – A+ (Excellent)=30-30 cum laude=Excellent knowledge of teaching contents; students should show high analytical and synthetic capabilities and should be able to apply their knowledge to solve highly complex problems.<br>B (Very good)=27-29=Very good knowledge of the teaching contents and excellent language control; students should show analytical and synthetic skills and be able to apply their knowledge to solve problems of medium and, in some cases, even higher complexity.<br>C (Good)=24- 26=Good knowledge of teaching contents and good language control; the students should be able to apply their knowledge to solve problems of medium complexity<br>D (Satisfactory)=21-23=Average knowledge of the teaching contents, in some cases limited to the main topic; acceptable ability to use the specific discipline language and independently apply the acquired knowledge.<br>E (Sufficient)=18-20=Minimum teaching content knowledge, often limited to the main topic; modest ability to use the subject specific language and independently apply the acquired knowledge.<br>F (Fail)=1-17=Lack of an acceptable knowledge of the main teaching content knowledge; very little or no ability to use the specific subject language and apply independently the acquired knowledge. |
| **TEACHING METHODS** | Teaching is based on lectures and practice, also with informatics aid and supported by slides, downloadable by the unipa website. |

**MODULE**
**MEDICAL STATISTICS**

*Prof.ssa DOMENICA MATRANGA*

**SUGGESTED BIBLIOGRAPHY**

Libro di testo
Triola MM Triola MF, Statistica per le discipline biosanitarie, Pearson

Altri Libri consigliati
Daniel W.W., Biostatistica, Edizione EdiSES
M. Pagano, K. Gauvreau, Biostatistica, Ed. Idelson-Gnocchi, Napoli

Altri testi di approfondimento

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

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| **AMBIT** | 50443-Discipline generali per la formazione dell'odontoiatra |
| **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 and dental literature. The topics include the understanding of the study design and of statistical analysis. Students will be introduced to the elementary concepts of descriptive and inferential statistics and will be able to calculate and interpret simple tests of statistical hypothesis, measures of occurrence and risk

## SYLLABUS

| Hrs | Frontal teaching |
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| 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 |
| 2 | Measures of mean and variability |
| 2 | Measures of occurrence: prevalence and incidence |
| 4 | Observational and experimental studies |
| 3 | Elements of probability theory. Bayes Theorem. Measures of accuracy of diagnostic tests |
| 2 | Theoretical distributions: Gauss and Binomial distribution |
| 2 | Central Limit Theorem. Sample distributions of sample mean and sample frequency |
| 3 | Estimate of mean and frequency. Confidence Intervals |
| 3 | 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 |

| Hrs | Practice |
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| 1 | Practice on measures of mean and variability |
| 1 | Practice on probability, sensitivity, specificity and predictive values |
| 1 | Practice on confidence intervals and statistcal tests |

**MODULE**
**GENERAL PSYCHOLOGY**

*Prof.ssa SILVANA MICELI*

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| **SUGGESTED BIBLIOGRAPHY** | |
| TESTI CONSIGLIATI: Eysenck M., (2006), Manuale di Psicologia generale, Idelson-Gnocchi, | |
| **AMBIT** | 50443-Discipline generali per la formazione dell'odontoiatra |
| **INDIVIDUAL STUDY (Hrs)** | 45 |
| **COURSE ACTIVITY (Hrs)** | 30 |
| **EDUCATIONAL OBJECTIVES OF THE MODULE** | |
| The course aims to offers to the student a framework with the main problems related to the origin of psychology, promoting a reflection on theoretical, methodological and epistemological models which guided its development. It aims to analyses different psychological functions, referring to latest achievements of experimental psychology. | |

## SYLLABUS

| Hrs | Frontal teaching |
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| 2 | Origin of psychology as a science: structuralism and functionalism |
| 2 | Psychoanalysis: S.Freud |
| 2 | Gestalt theory: Kohler, Wertheimer |
| 2 | Behaviorism: Watson, Skinner, Tolman |
| 2 | Cognitivism and cognitive science |
| 3 | Genetic and developmental bases of behavior |
| 3 | Main processes of learning |
| 3 | Inner workings of motivation and emotion |
| 3 | Structure and systems of memory |
| 3 | Reasoning and problem solving |
| 3 | Language |
| 2 | Psychology of intelligence |