



UNIVERSITÀ DEGLI STUDI DI PALERMO

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| DEPARTMENT | Scienze Psicologiche, Pedagogiche, dell'Esercizio Fisico e della Formazione | | |
| ACADEMIC YEAR | 2017/2018 | | |
| BACHELOR'S DEGREE (BSC) | HUMAN MOVEMENT AND SPORT SCIENCES | | |
| INTEGRATED COURSE | THEORY AND METHODOLOGY OF MOTORIAL ACTIVITIES - INTEGRATED COURSE | | |
| CODE | 11518 | | |
| MODULES | Yes | | |
| NUMBER OF MODULES | 2 | | |
| SCIENTIFIC SECTOR(S) | M-EDF/01 | | |
| HEAD PROFESSOR(S) | ZANGLA DANIELE | Professore Associato | Univ. di PALERMO |
| OTHER PROFESSOR(S) | TRAINA MARCELLO | Cultore della Materia | Univ. di PALERMO |
| | ZANGLA DANIELE | Professore Associato | Univ. di PALERMO |
| CREDITS | 12 | | |
| PROPAEDEUTICAL SUBJECTS | | | |
| MUTUALIZATION | | | |
| YEAR | 1 | | |
| TERM (SEMESTER) | 2° semester | | |
| ATTENDANCE | Not mandatory | | |
| EVALUATION | Out of 30 | | |
| TEACHER OFFICE HOURS | TRAINA MARCELLO Tuesday 08:30 10:30 Via Pascoli 6 Thursday 08:30 10:30 ZANGLA DANIELE Tuesday 10:00 11:00 Via Pascoli | | |

DOCENTE: Prof. DANIELE ZANGLA

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| PREREQUISITES | Knowledge of anatomy and physiology of exercise |
| LEARNING OUTCOMES | <p>Knowledge and understanding: have demonstrated knowledge of biomechanics and motor control of human movement, and of the educational methods of motor and sports activities.</p> <p>Applying knowledge and understanding: acquisition of the basic terms and principles in biomechanics and of motor and sports skills description in different educational contexts.</p> <p>Making judgments: have the ability to identify goals in the short, medium and long term to achieve a result in the biomechanics and motor context.</p> <p>Communication: ability to communicate clearly and unambiguously the knowledge to both expert and non-expert movement audience.</p> <p>Lifelong learning skills: have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy, taking particular care of the issue of the movement.</p> |
| ASSESSMENT METHODS | <p>The exam is an oral exam aimed at verifying the competences and skills to be acquired at the end of the course. The purpose of the questions is to verify knowledge of contents to be acquired at the end of the course, as well as analytical and expository skills. Knowledge check includes scrutiny of the capability to establish relationships between contents, theories, patterns and methodologies which have been an object of study during the course. As far as analytical skills are concerned, check will aim at verifying that the student has achieved at least one of the following goals: - make judgements and opinions about the disciplinary contents - understand applications and/or implications of the disciplinary contents within the specific discipline of reference - set the disciplinary contents within the professional, technological and sociocultural setting of reference. The student will have to answer at least two\three questions in the oral form about aspects of the syllabus with reference to the suggested textbooks. The exam aims at verifying knowledge and understanding of topics, interpretative competence and autonomy of judgement of concrete cases. The passing grade threshold will be considered reached if the student shows to have acquired the topics of the specific subject matter and is able to solve specific concrete cases as well as to correctly convey knowledge with satisfactory expository skills. Below the above-mentioned threshold, the exam will be considered unsatisfactory. The more the student can interact with his examiner showing mastery of language, of the specific subject matter and ability to convey his/her knowledge of the topics of the specific field of reference, the more the assessment will be positive. The latter will be expressed by 18 to 30-30 with honours marks.</p> |
| TEACHING METHODS | frontal and practical lessons |

**MODULE
ANALYSIS OF MOVEMENT**

Prof. DANIELE ZANGLA

SUGGESTED BIBLIOGRAPHY

Rolf Wirhed "Abilita' Atletica e Anatomia del Movimento", Edi-Ermes, ult. edizione

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| AMBIT | 10683-Attività formative affini o integrative |
| INDIVIDUAL STUDY (Hrs) | 108 |
| COURSE ACTIVITY (Hrs) | 42 |

EDUCATIONAL OBJECTIVES OF THE MODULE

Teaching purpose is to provide the knowledge and basic methodological tools related to a particular context biomechanics of human movement . To this end they will face in an integrated vision biomechanical aspects and neurophysiology of motor control. Particular attention will be devoted to the application outcomes in areas such as science motor and sports medicine .

SYLLABUS

| Hrs | Frontal teaching |
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| 5 | Definition of force , relevant physical parameters for the study of the motions , and scalar Vector , the sum of the vectors , the decomposition of carriers |
| 7 | muscle strength and decomposition vector , the three laws of Newton , static measure of strength, weight force , reaction forces , the force normal , static and dynamic sliding friction , friction coefficient , air resistance |
| 5 | centrifugal and centripetal force , circular motion , work , power , energy concept , potential energy, kinetic energy, conservation of energy , the time of a force |
| 5 | moment of a force applied to the human joints , muscle insertion point and mechanical implications , the balance of the suspended bodies , center of gravity of a homogeneous body , a center of gravity of non- homogeneous body |
| 5 | the levers , the physical characteristics of a lever , the three types of levers , the levers applied to the human body , balance of forces . Muscles and joints . anatomical planes |
| 4 | video analysis with Kinovea |
| 6 | strength and angular speed of motion , muscle recruitment , strength training , flexibility trainin |
| 5 | gait analysis |

MODULE
THEORY AND METHODOLOGY OF HUMAN MOTION

Prof. MARCELLO TRAINA

SUGGESTED BIBLIOGRAPHY

Casolo Francesco: Lineamenti di teoria e metodologia del movimento umano, V&P Università; 2002.
Schmidt R.A., Wrisberg C.A. Apprendimento motorio e prestazione. Società Stampa Sportiva. Roma; 2000.
Materiale didattico reso disponibile dal docente.

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| AMBIT | 50101-Discipline motorie e sportive |
| INDIVIDUAL STUDY (Hrs) | 98 |
| COURSE ACTIVITY (Hrs) | 52 |

EDUCATIONAL OBJECTIVES OF THE MODULE

The course aims to provide theoretical and practical knowledge on the motor learning and the human movement.

SYLLABUS

| Hrs | Frontal teaching |
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| 4 | Movement functions. Stages of evolution of motricity. |
| 6 | Classification and evaluation of the reflex movement. |
| 4 | Voluntary and controlled motricity. |
| 2 | Automated motricity and movement structures. |
| 2 | Examples of technical and practical exercises on stations and positions. |
| 2 | Glossary of gymnastic and sports terms. |
| 8 | Conditional and Coordination skills. Motor control theory. |
| 4 | Examples of technical and practical exercises on postures. |
| 4 | Examples of technical and practical exercises on postural patterns. |
| 8 | Examples of technical and practical exercises on motor patterns. |
| 4 | Examples of technical and practical exercises on conditional skills. |
| 4 | Examples of technical and practical exercises on coordination skills. |