**ACADEMIC DISCIPLINE OVERVIEW**

1. **Program data**

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| 1.1. | GRIGORE T. POPA UNIVERSITY OF MEDICINE AND PHARMACY IASI |
| 1.2.  | FACULTY OF MEDICAL BIOENGINEERING  |
| 1.3. | PROGRAMME: Physio-kinetotherapy and rehabilitation |
| 1.4.  | STUDY FIELD: Health |
| 1.5. | STUDY CYCLE: UNDERGRADUATE |
| 1.6. | STUDY PROGRAMME: IN ENGLISH |
| 1. **Subject data**
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| 2.1. | Subject: Medical gymnastics RE **1109** |
| 2.2. | Module leader:  |
| 2.3. | Seminar leader: Associate professor phd Mariana Rotariu, Asist.phd. Ionite catalin |
| 2.4. Year of study | 1 | 2.5. Semester in which is taught | 1 | 2.6. Evaluation type | C1 | 2.7. Subject status  | Mandatory DS |

1. **Estimated total time (hours/semester of didactic activity)**

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| 3.1.Number of hours / week | 2 | 3.2. Courses number of hours / week | 0 | 3.3.Seminar / l practical classes | 2 |
| 3.4. Total number of learning hours | 28 | 3.5. Courses | 0 | 3.6. Seminar / practical classes | 28 |
| 3.7. Distribution of the available time | Hours |
| Study based on the manual, lecture support, bibliography and hand notes | 12 |
| Supplementary documentation in the library, using specialised platforms via internet and by field work | 5 |
| Preparation for seminars / practical classes, study themes, reviews, portofolio, and essays | 5 |
| Tutorship | 2 |
| Examinations | 2 |
| Other activities |  |
| 3.8. Total hours of individual study | 22 |
| 3.9. Total hours pes semester | 50 |
| 3.10. Number of credits | 2 |

1. Preconditions (where applicable)

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| 4.1. of curriculum |  |
| 4.2. of competences |  |

1. Conditions (where applicable)

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| 5.1. for lectures | Logistic video support |
| 5.2. for seminars / practical classes |  |

1. Specific competences acquired

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| Professional competences (expressed as knowledge and abilities) | C1.3 construction and application of kinetotherapy, programs related to the functional diagnosis and according to the physician's indications, also performing prophylaxis and gymnastics programs.C1.4 Use of adequate exercises , parameters in the techniques to increase articular mobility, muscle force, coordination, balance, to improve certain altered parameters: cardiovascular,respiratory... |
| Transverse competences (of role, of professional development, personal) | Knowledge, understanding concepts, theories and basic methods of the scope and area of specialization; use appropriate communication professionalUsing the knowledge base for explaining and interpretingvarious types of concepts, situations, processes, projects, etc. associated domain |

1. Objectives of the study discipline (according to the grid of specific competences acquired)

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| 7.1. General objective | Accumulation of knowledge related to the theoretical and methodical bases of kinetotherapy. |
| 7.2. Specific objectives | Familiarization with illnesses and health recovery gymnastics programs .Development of certain field specific programs and correlations with the results from related fields. |

1. Contents

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| 8.1. Lecture | Teaching methods | Observations |
| 8.2. Seminar / practical classes | Teaching methods | 2 hrs |
| 1. Subject importance. History. Terminology. Gymnastics as science. Interrelation with other disciplines.
 | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 1. The laws of human body growth and development. Factors influencing growth.
 | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 1. Terminology of gymnastics: fundamental and derived positions. Positions and movements of body segments.
 | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 1. Posture and human locomotion. General mechanisms of posture and balance. Orthostatic postural mechanisms. Posturology. Posturograpy. Their importance in corrective gymnastics.
 | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 1. General mechanisms of locomotion. Biodynamic and bio-kinematic of locomotion. Kinematic muscle chains. Closed and open kinetic chain.
 | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 1. Adaptology. The role of physical effort in adaptation. Parameters and types of efforts. The general syndrome of adaptation, Types of adaptation. Their importance in gymnastics:kinetoterapy and Kinetoprophylaxy.
 | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 1. Immediate and late cardiovascular and respiratory adaptive modifications. Mechanisms. Their importance in medical gymnastics.
 | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 8. General Aspects on gymnasticsa) Movement – the most natural and universal form of life manifestation (physical parameters of movement which influence the organism); b) Physiological particularities of stimulus/effort. Classifications. | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 9. Internal and external forces which take part in movement. Definition of movements. Axes, anatomical planes. | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 1. hrs
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| 10.Body posture – general aspects. Training and educating the right attitude of the body | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 11.Kinetoprophylaxis. Exerscise – psysical activity:Practical Gymnastics of refreshment | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 12.Kinetoprophylaxis. Exerscise – psysical activity:Practical Maintenance gymnastics | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| 13. Kinetoprophylaxis. Exerscise – psysical activity:Practical Aerobic gymnastics | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 1. hrs
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| 14. Respiratory gymnastics | Verbal methods: explanationIntuitive methods: PowerPoint, video, observation. | 2 hrs |
| Bibliography1. Hăulică, I., Fiziologie umană, 3rd Edition, Ed. Medicală, Bucharest, 2007.2. Sbenghe, T., Kinesiologie, ştiinţa mişcării, Ed. Medicală, Bucharest, 2008.. 3.Balint Nela Tatiana Kinetoprofilaxie, Editura Alma Mater Bacău – 20104. Plas F., Hagron E.n Kinetoterapia active, Ed Polirom, Iasi, 20015. Complete guide to primary gymnastics, 20116. Handbook of Sports Medicine and Science, Gymnastics, 20137. Gymnastics, Dennis J. Caine, Keith Russell, Liesbeth Lim, Online ISBN: 9781118357538, aug 2013. |

**9.Correlation of the discipline contents with the expectations of the epistemic community, professional associations, and representative employers from the afferent program field**

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| Knowledge and abilities are established as didactic objectives and specified as such in the analytic programs that are revised yearly. After their analysis by the study discipline staff, these are discussed and approved in the Curricular Committee, towards curricular harmonization among the various study disciplines. Along this entire process systematic evaluation is performed, directly if possible, regarding the correspondence of the contents to the expectations of the academic community and of the representatives of the social community, professional associations, and employers. |

**10.Evaluation**

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| Type of activity | Type of activity | Evaluation methods | Contribution to the final grade |
| Seminar/practical classes | Familiarization with theoretical notions and aspects introduces during the course. Themes of practical works | Written exam and Practical activity oral exam | 90% |
| Activity during semester |  | 10% |
| Minimal performance standard: Promotion with a grade of minimum 5* knowledge of the general mechanism of locomotion
* knowledge of the role of physical effort in adaptation
* knowledge of movement amplitude assessment and of the practical bases of recovery.
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Date: Signature of head of discipline

 Associate professor phd Mariana Rotariu

 Asist.professor phd. Ionite catalin

23.09.2019

Department approval date

30.09.2019 Signature of department director

Lecturer Daniela-Viorelia Matei, Ph-D