**ACADEMIC DISCIPLINE OVERVIEW**

1. **Program data**

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| 1.1. Higher education institution | Grigore T. Popa University of Medicine and Pharmacy Iasi |
| 1.2. Faculty | Medical Bioengineering |
| 1.3. Department | Biomedical Sciences |
| 1.4. Field of study | Health |
| 1.5. The cycle of studies | Bachelor |
| 1.6. Study program / qualification | Balneo-physiokinetotherapy and rehabilitation – english language / Physiokinetotherapist |

**2. Discipline data**

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| 2.1. Name of the discipline / Code | **Sports Pathology Rehabilitation** | **RE1315** |
| 2.2. Teaching staff in charge with lectures | **Lecturer Cătălin Ionițe, PhD** |
| 2.3. Teaching staff in charge with practical activities | **Lecturer Cătălin Ionițe, PhD**  |
| 2.4. Year of study | **III** | 2.5. Semester | **2** | 2.6. The type of assessment | **C2** |
| 2.7. Discipline type | **Mandatory** | **Specialty discipline** |

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

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| 3.1. Number of hours / week: | 3.2. Courses number of hours / week | 3.3. Seminars / practical classes number of hours / week |
| Semester 1 |  |  |  |
| Semester 2 | **2** | **1** | **1** |
| 3.4. Total number of learning hours: | **28** | 3.5. Of which: Courses | **14** | 3.6. Of which: Seminars / practical classes: | **14** |
| 3.7. Distribution of individual study time: | Hours sem. 1 | Hours sem. 2 |
| Study time using course book materials, bibliography and hand notes |  | 10 |
| Supplementary documentation in the library, using specialised platforms via internet and by field work |  | 10 |
| Preparation time for seminars / practical classes, study themes, reviews, portfolio and essays |  |  |
| Tutorship |  | 2 |
| Examinations |  | 2 |
| Other activities |  | 2 |
| Total hours of individual study (*without examinations*) |  | **22** |
| 3.8. Total hours per semester |  | **50** |
| 3.9. Number of credits |  | **2** |

**4. Preconditions (where applicable)**

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| 4.1. of curriculum | Rehabilitation in orthopedic diseases |
| 4.2. of competences | Notions of syndromes of traumatic orthopedic diseases |

5. **Conditions (where applicable)**

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| 5.1. for lectures | Logistic support video |
| 5.2. for seminars / practical classes | Students will have appropriate equipment |

**6. Specific competences acquired**

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| **Professional competencies** | **C 3.1** | The use of appropriate parameters in techniques for increasing joint mobility, muscle strength, coordination, balance, in improving some modified parameters (cardiovascular, respiratory, neuromuscular |
| **C 4.1** | Application of electrotherapy, phototherapy, magnetotherapy, ultasonotherapy procedures; it uses parameters and a schedule of applications adapted to the pathology and the treated region. |

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

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| 7.1. General objective | Notions concerning pathology in sport; opportunity interpretation programs tailored physiotherapy treatment area and type of pathology, hydro, electrotherapy. |
| 7.2. Specific objectives | Acquiring knowledge and skills acquisition and interpretation of pathology information from sports, the means and methods of functional assessment in different pathological situations. |

**8. Contents**

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| **8.1. Lectures** | **Teaching methods** | **Observations** |
| 1 | Peculiarities recovery in sport | Video projections, interactive discussions | 2 hours |
| 2 | Sports injuries of the upper limb | 2 hours |
| 3 | Sports injuries of the lower limb | 2 hours |
| 4 | Sports Injuries course of the rachis | 2 hours |
| 5 | Sport specific injuries | 2 hours |
| 6 | The role of physical therapy course in sports injury recovery | 2 hours |
| 7 | The importance prevention of injuries in sport | 2 hours |

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| **8.2. Practical activities - practical class**  | **Teaching methods** | **Observations** |
| 1 | Presentation of treatment principles/techniques/methods in sports pathology. The concept of sports rehabilitation. | Verbal methods: ExplenationIntuitive methods: power point, video, observation.Practical methods: performance of techniques, performance of techniques in a group of students, etc | 2 hours |
| 2 | Techniques and methods of evaluation/treatment of upper limb conditions | 2 hours |
| 3 | Techniques and methods of evaluation/treatment of lower limb conditions | 2 hours |
| 4 | Techniques and methods for evaluation/treatment of spinal disorders (cervical/thoracic/lumbar segment) | 2 hours |
| 5 | Injuries specific to different sports (boxing, rugby, football, handball, basketball, volleyball tennis, athletics, gymnastics etc.) as well as techniques and methods of approach in their rehabilitation | 2 hours |
| 6 | The role of the physical therapist in the interdisciplinary team of the sport/athlete as well as his involvement in the recovery and reintegration process | 2 hours |
| 7 | Methods and techniques applied in different sports (boxing, rugby, football, handball, basketball, volleyball tennis, athletics, gymnastics etc.) in order to prevent accidents | 2 hours |

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| **8.3. Bibliography:** |
| ***Mandatory:*** |
| 1. Antje Hueter-Becker, Mechthild Doelken. Physical Therapy Examination and Assessment.Georg Thieme Verlag KG Thieme Publishers Stuttgart, Germany, 2015 ISBN 978-3-13-174641-2
2. Gareth Jones, Ed Wilson et all.Everyday sports injuries.The essential step-by-step guide to prevention, diagnosis, and treatment. Penguin Random House, USA, New York, 2019 ISBN 978-1-4654-8055-2 Klaus Buckup, Johannes Backup. Clinical Tests for the Musculoskeletal system. Examination-Signs-Phenomena. Thieme Publisher Stuttgart, Germany, 2016 ISBN 9783131367938
3. Albert I. King. The biomechanics of impact injury. Biomechanical response, mechanisms of injury, human tolerance and simulation. Springer International Publishing AG 2018 ISBN 978-3-319-49792-1
4. James Watkins. Biomecanics. Laboratory and field excercises in sport and exercise. Routledge Taylor & Francis Group. 2018. ISBN 978-1-315-30631-5
5. David G. Behm. The science and physiology of flexibility and stretching. Implications and applications in sport performance and health. Routledge. Taylor & Francis Group. NY. 2019. ISBN 978-1-315-11074-5
6. Shaun Philips. Fatigue in sport and exercise. Taylor & Francis Group. NY. 2015. ISBN 978-1-315-81485-8
7. Lars Petterson, Per Renstrom. Sports injuries. Prevention, Treatment and Rehabilitation. Fourth Edition. CRC Press Taylor & Francis group.Boca Raton, FL, 2017 ISBN 978-1-84184-705-4
8. Rotariu Mariana, Ionite Andrei-Cătălin. Movements of the spine correlations between landmarks and effectors. Editura Discobolul, București, 2018 ISBN: 978-606-798-060-8
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| ***Elective:*** |
| 1. Derek Hasen, Steve Kennelly. Plyometric anatomy. Human Kinetics. USA. 2017. ISBN: 978-1-4925-3349-8 David J. Mage. Orthopedic physical assessment. Sixth edition. Elsevier. St. Louis, Missouri, 2014 ISBN 978-1-4557-0977-9
2. Kazuyuki Kanosue et all. Physical activity exercise, sedentary behavior and health. Springer. Japan. 2015 ISBN 978-4-431-55333-5
3. Mahmut Nedim Doral et all. Sports Injuries. Prevention, diagnosis, treatment and rehabilitation. Springer Heidelberg Dordrecht London New York, 2012, ISBN 978-642-15629-8
 |
| 1. Sandy Fritz. Sport & exercise massage. Comprehensive care in athletics, fitness & rehabilitation. 2nd edition. Elsevier. St. Louis, Missouri, 2013 ISBN: 978-323-08382-9
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**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 | Assessment criteria | Evaluation methods | Contribution to the final grade |
| Lectures | Acquiring theoretical notions and presented in the course | Written exam. MCQ Examination | 80 % |
| Practical activities | Activities carried out in laboratory and conducted quality essays. | Colloquium practical activity | Admitted/ Rejected |
| Individual study | Preparation time for seminars / practical classes, study themes, reviews, portfolio and essays.Study time using coursebook materials, bibliography and hand notes, documentation in the library, using specialised platforms via internet and by field work. | Tests during the semester | 20 % |
| Minimal performance standard:* *Knowledge of the basic notions in sports pathology*
* *Knowledge of the role of prophylaxis in sports pathology*
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| Date | Holder of course / signature, | Holder of practical activities / signature, |
| 10.09.2023 |  |  |

 Lecturer Cătălin Ionițe, PhD Lecturer Cătălin Ionițe, PhD

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| Date of approval in the Department Council/Teaching Council,  |
| 14.09.2023 |  | Department director / signature, |
|  |  | Associate Professor Daniela-Viorelia Matei, MD, PhD |