**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 | | | | **Clinical Training** | | **RE1326** |
| 2.2. Teaching staff in charge with lectures | | | | **-** | | |
| 2.3. Teaching staff in charge with practical activities | | | | **M1: Associate Professor Costel Bradea,MD, PhD Assistant Professor Cristina Vicol, MD**  **M2: Professor Codrina Ancuta, MD, PhD**  **Assistant Professor Onu Ilie, PhD**  **M3: Associate Professor Cristina Gavrilescu, MD, PhD**  **Lecturer Luminita Confederat, MD**  **M4: Lecturer Elena Hanganu, MD, PhD**  **Assistant Professor Bogdan Caba, MD, PhD** | | |
| 2.4. Year of study | **III** | 2.5. Semester | **2** | 2.6. The type of assessment | **Colloquium, 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 |  |  | |  | | | |
| 3.4. Total number of learning hours: | **160** | 3.5. Of which: Courses |  | 3.6. Of which: Seminars / practical classes: | | | **160** |
| 3.7. Distribution of individual study time: | | | | | Hours sem. 1 | Hours sem. 2 | |
| Study time using course book materials, bibliography and hand notes | | | | |  |  | |
| Supplementary documentation in the library, using specialised platforms via internet and by field work | | | | |  |  | |
| Preparation time for seminars / practical classes, study themes, reviews, portfolio and essays | | | | |  |  | |
| Tutorship | | | | |  |  | |
| Examinations | | | | |  |  | |
| Other activities | | | | |  |  | |
| Total hours of individual study (*without examinations*) | | | | |  |  | |
| 3.8. Total hours per semester | | | | |  |  | |
| 3.9. Number of credits | | | | |  | **2** | |

**4. Preconditions (where applicable)**

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| 4.1. of curriculum | Recovery (in rheumatological diseases, in cardiovascular diseases, in respiratory diseases, in pediatric diseases, in sports pathology, in geriatric pathology, surgery, oncology) |
| 4.2. of competences | The basic knowledge for choosing the means and methods of functional assessment and balneophysiokinetotherapy treatment in different pathological situations |

5. **Conditions (where applicable)**

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| 5.1. for lectures | - |
| 5.2. for seminars / practical classes | Physiotherapy rooms in the centers and partner hospital units equipped with massage tables, trellis, mattresses, medicine balls, elastic bands, physiotherapy devices, etc.  Students will have appropriate equipment (medical equipment, medical clogs) |

**6. Specific competences acquired**

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| **Transversal**  **competencies** | **CT1** | Identification of the objectives to be achieved, the available resources, the conditions for their completion, the work stages, working times, related completion deadlines and related risks |
| **CT2** | Identifying roles and responsibilities in a multidisciplinary team and applying effective communication and work techniques within the team |

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

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| 7.1. General objective | * Practical implementation of activities related to communication with the patient and participation in the clinical activity * Realization of an investigation and balneo-physio-kinetotherapeutic treatment plan * Knowing and performing specific therapy maneuvers |
| 7.2. Specific objectives | * Knowledge of the principles of balneophysiokinetotherapy treatment of neurological, orthopedic, cardiovascular, respiratory, rheumatological, surgical, pediatric, geriatric, uro-gynecological, endocrine-metabolic, sports, oncological pathology * Carrying out manipulations for therapeutic purposes * Knowing and interpreting the results of current investigations. * Knowledge of the care and operations performed in medical-surgical emergencies in the internship medical unit * Application of the balneophysiokinetotherapy program, taking into account the norms of professional ethics and deontology * Understanding the role and development of collaboration capabilities in the multidisciplinary team: doctor - physiotherapist - psychologist - medical assistant - nurse |

**8. Contents**

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| **8.2. Practical activities - practical class** | | **Teaching methods** | **Observations** |
| **MODULE 1 = 40 hours** | | | |
| 1 | Apply programs for recovery in respiratory tract infections | Students will be required to observe, perform and apply specific methods of physical therapy  The practice coordinator explains the specifics and principles of the methods used and demonstrates practically the various maneuvers and techniques used and then guides and supervises the students in the correct and safe performance of these methods and techniques. | The students will be organized in small groups of 4-5 people, and each group will be present weekly at the practice offices in the partner units of UMF Iasi, and will carry out the practice supervised by  specialty  - Clinical Hospital of Pneumophthisiology Iași  Fzkt. Cucu Alexandra  - "Sf Spiridon" County Emergency Clinical Hospital  Fzkt. Diana Cretu  - Clinical Recovery Hospital  Fzkt. Piseru Emanuel Andrei  Fzkt. Bondar Teodora  - "Sfânta Maria" Emergency Clinical Hospital for Children  Fzkt. Mititelu Ana |
| 2 | Apply programs for the recovery of chronic lung diseases with obstructive ventilatory dysfunction. |
| 3 | Apply programs for the recovery of chronic lung diseases with restrictive ventilatory dysfunction |
| 4 | Apply programs for the recovery of chronic lung diseases with mixed ventilatory dysfunction |
| 5 | Participation in the performance of the spirometry and the exercise test |
| 6 | Carrying out some resuscitation maneuvers |
| 7 | Recovery through pre- and post-operative respiratory gymnastics |
| 8 | Special physical therapy for patients operated on the abdominal wall |
| 9 | Special physiotherapy for patients operated on for diseases of the upper and lower limbs |
| 10 | Special physical therapy for patients operated on the abdominal wall |
|  | **MODULE 2 = 40 hours** | | |
| 1 | Apply programs for the recovery of rheumatoid arthritis | Verbal methods: the explanation  Intuitive methods: observation, demonstration  Practical methods: practical applications  The practice coordinator explains the specifics and principles of the methods used and demonstrates practically the various maneuvers and techniques used and then guides and supervises the students in the correct and safe performance of these methods and techniques. | The students will be organized in small groups of 4-5 people, and each group will be present weekly at the practice offices in the partner units of UMF Iasi, and will carry out the practice supervised by  specialty  - RED Hospital - "St. Sava" Hospital Iasi  Recumedis medical recovery and balneophysiotherapy hospital  Fzkt. Sava Anca  Fzkt. Ciubotaru Catalin  - Clinical Recovery Hospital  Fzkt. Piseru Emanuel Andrei  Fzkt. Bondar Teodora  - KineticFit Medical Recovery Center  Ft. Ciobanu Andreea  - TBRCM SA – Nicolina Branch  Balneary Treatment and Recovery of Working Capacity  Fzkt. Butnaru Mihai Corneliu |
| 2 | Apply programs for the recovery of osteoarthritis of the hip |
| 3 | Apply programs for the recovery of their degenerative osteoarticular diseases |
| 4 | Apply programs for the recovery of their inflammatory osteoarticular diseases |
| 5 | Apply programs for the recovery of ankylosing spondylitis |
| 6 | Elaborates the recovery plan for gonarthrosis and coxarthrosis |
| 7 | Elaborates the recovery plan in disc pathology |
| 8 | Elaborates the recovery plan in abarticular pathology |
| 9 | Elaborates the recovery plan in complex regional pain syndrome |
| 10 | Elaborates the recovery plan in osteoporosis |
| 11 | Elaborates the recovery plan in sports traumatology |
| **MODULE 3 = 40 hours** | | | |
| 1 | Apply programs for the recovery of ischemic cardiomyopathy | Students will be required to observe, perform and apply specific methods of physical therapy  The practice coordinator explains the specifics and principles of the methods used and demonstrates practically the various maneuvers and techniques used and then guides and supervises the students in the correct and safe performance of these methods and techniques. | The students will be organized in small groups of 4-5 people, and each group will be present weekly at the practice offices in the partner units of UMF Iasi, and will carry out the practice supervised by  specialty  - IMC Hospital - Medical Recovery Clinic  Fzkt. Zapodeanu Felix  - "Sf Spiridon" County Emergency Clinical Hospital  Fzkt. Diana Cretu  Fzkt. Sofron Gheorghiță  - Regional Institute of Oncology  Fzkt. Ionescu Bogdan  - "Prof. Dr. Nicolae Oblu" Emergency Clinical Hospital in Iasi  Fzkt. Rostas Abel |
| 2 | Apply programs for the recovery of heart failure |
| 3 | Apply programs for the recovery of high blood pressure |
| 4 | Apply programs for the recovery of peripheral arteriopathy and venous diseases. |
| 5 | Apply programs for recovery after heart transplantation and after myocardial revascularization |
| 6 | Exercises in musculoskeletal, neurological and respiratory conditions in cancer patients |
| 7 | Methods of decongestive physiotherapy in cancer patients |
| 8 | Recovery of patients with urinary incontinence, genital prolapse, chronic pelvic pain |
| 9 | Application of recovery programs in dementia |
| 10 | Occupational therapy in cardiovascular, chronic respiratory pathology |
| 11 | Occupational therapy in the rehabilitation of neurological sequelae and geriatric pathology. |
| 12 | Complex management of post-traumatic pain |
| 13 | Complex management of neuropathic pain |
| 14 | Complex cancer pain management |
| **MODULE 4 = 40 hours** | | | |
| 1 | Preparation and practical application of a recovery plan for pediatric patients with acute and chronic respiratory failure | Students will be required to observe, perform and apply specific methods of physical therapy  The practice coordinator explains the specifics and principles of the methods used and demonstrates practically the various maneuvers and techniques used and then guides and supervises the students in the correct and safe performance of these methods and techniques. | The students will be organized in small groups of 4-5 people, and each group will be present weekly at the practice offices in the partner units of UMF Iasi, and will carry out the practice supervised by  specialty  - "Sfânta Maria" Emergency Clinical Hospital for Children  Fzkt. MicuAna  - S.C. Analda S.R.L., Iași Medical recovery Work point CentrumGym  Fzkt. Loghin Irina Ioana  Fzkt. Bărbulescu Constantin  -IMC Hospital - Medical Recovery Clinic  Fzkt. Zapodeanu Felix  - Iasi Kinetera Medical Center  Kt. Andreea Bordeianu  Kt. Dima Gabriela |
| 2 | Preparation and practical application of a recovery plan for children with meonial ileus |
| 3 | The preparation and practical application of a recovery plan for children with a stoma |
| 4 | The preparation and practical application of a recovery plan for traumatic conditions in children |
| 5 | The application of physical therapy in the treatment of developmental dysplasia of the hip in children |
| 6 | Physiotherapy treatment in Sprengel deformity and Perthes disease |
| 7 | Designing a training program for speech recovery in patients with hearing aids. Rehabilitation of language disorders. |
| 8 | Designing a training program for imperfect vision myopia and hypermetropia, astigmatism and presbyopia |
| 9 | Occupational therapy in pediatric pathology |
| 10 | Development of a dietary plan in obesity and metabolic diseases |

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| **8.3. Bibliography:** |
| ***Mandatory:*** |
| 1. Cristina Pomîrleanu: Clinical evaluation in rheumatology, 2016, Stef publishing house, ISBN: 978-606-575-675-5 |
| 1. Pediatric Surgery Simona Gavrilescu; Elena Hanganu, Iulia Straticiuc-Ciongradi, Ioan Sârbu, Elena Tarcă. – Iași: Publishing House Gr.T. Popa, 2019 Bibliogr. ISBN 978-606-544-591-8 |
| 1. Pneumophthysiology Course for Students of the Faculty of Dental Medicine-Antigona Trofor, European Institute Publishing House, Iasi, 2001, ISBN 973-611-205-5 |
| 1. Vanvu, G., Recovery in sports pathology, Publishing House "Gr. T. Popa" UMF Iasi, 2018 |
| 1. Postolache P.A. (coordinator), Soare I., Chelariu L.: "Recovery in cardiovascular diseases - course", ETNA Publishing House, Bucharest, 2020, 118 pg, ISBN 978-973-1985-60-2. |
| 1. Codrina Ancuta, Cristina Pomîrleanu, Principles of diagnosis and treatment in rheumatology, 2019, "Gr.T.Popa" publishing house UMF Iasi, ISBN:978-606-544-652-6 |
| 1. edited by Codrina Ancuta: Essentials in Physical Medicine and Medical Recovery, 2010, "Gr.T.Popa" UMF Iasi publishing house, ISBN: 978-606-544-031-9 |

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| ***Elective:*** |
| 1. Socolov D, Grigore M, Nemescu D, Socolov R. Obstetrics. Iasi, Ed UMF Gr T Popa 2020 |
| 1. EMERGENCY GUIDELINES IN GERIATRIC, Rodica Ghiuru, Gavrilescu Cristina Maria, Esanu Irina Mihaela, Cotea Irina, Crînguţa Mariana Paraschiv, Munteanu D., Junimea Publishing House, Iasi 2007 |
| 1. Andronache L.M., Practical elements of occupational therapy for the hemiplegic patient, Carol Davila University Publishing, Bucharest 2017 |
| 1. Scientific coordinators: Ostin C. Mungiu, Dorel Săndesc; Editorial coordinator: Aurel F. Marin, Pain therapy. 4th edition (revised and added), "Gr. T. Popa" Publishing House, UMF Iasi, 2019 |
| 1. C. Preda, Elements of nursing in Endocrinology, Publisher Gr. T. Popa, Iasi, 2009 |

**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 |
| Assessment of theoretical knowledge | Acquiring theoretical notions and presented in the course |  |  |
| Practical activities | Acquisition of notions and practical aspects. | Colloquium practical activity | 80 % |
| Evaluation during the semester | Active participation:  The frequency and amount of interaction in clinical practice hours is recorded.  Active and creative participation in recovery centers. | Periodic evaluation | 20 % |
| Minimal performance standard:   * application of therapeutic programs using different recovery procedures in rheumatological, pediatric, cardiovascular, respiratory diseases | | | |

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| Date | Holder of course / signature, | Holder of practical activities / signature, |
| 8.09.2023 |  | **M1:** Associate Professor Costel Bradea,MD, PhD  Assistant Professor Cristina Vicol, MD  **M2**:ProfessorCodrina Ancuta, MD, PhD  Assistant Professor Ilie Onu, PhD  **M3**: Associate Professor Cristina Gavrilescu, MD, PhD  Lecturer Luminita Confederat, MD  **M4:** Lecturer Elena Hanganu, MD, PhD  Assistant Professor Bogdan Caba, MD, 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 |