**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 | | | | **Rehabilitation in endocrine and methabolic pathology** | | **RE1316** |
| 2.2. Teaching staff in charge with lectures | | | | **Lecturer Cătălin Buzduga, MD, PhD** | | |
| 2.3. Teaching staff in charge with practical activities | | | | **-** | | |
| 2.4. Year of study | **III** | 2.5. Semester | **2** | 2.6. The type of assessment | **Exam, E2** | |
| 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 | **1** | **1** | |  | | | |
| 3.4. Total number of learning hours: | **14** | 3.5. Of which: Courses | **14** | 3.6. Of which: Seminars / practical classes: | | |  |
| 3.7. Distribution of individual study time: | | | | | Hours sem. 1 | Hours sem. 2 | |
| Study time using course book materials, bibliography and hand notes | | | | |  | 12 | |
| Supplementary documentation in the library, using specialised platforms via internet and by field work | | | | |  | 12 | |
| Preparation time for seminars / practical classes, study themes, reviews, portfolio and essays | | | | |  | 12 | |
| Tutorship | | | | |  | 2 | |
| Examinations | | | | |  | 2 | |
| Other activities | | | | |  |  | |
| Total hours of individual study (*without examinations*) | | | | |  | **36** | |
| 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 | Physiology, Biochemistry, Medical semiology and internal medicine |
| 4.2. of competences | Knowledge of the macroscopic and microscopic structure of the body's organs and systems |

5. **Conditions (where applicable)**

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

**6. Specific competences acquired**

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| **Professional competencies** | **C 2.5** | Implementation of new massage protocols and physical therapy programs adapted to endocrine-metabolic diseases |
| **C 3.5** | Development and elaboration of new hydrothermotherapy protocols used in endocrine-metabolic diseases |

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

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| 7.1. General objective | Explanation of endocrine-metabolic syndromes and diseases, physical therapy programs, hydrothermotherapy, electrotherapy, functional assessment methods adapted to the treated region and type of pathology |
| 7.2. Specific objectives | The accumulation of basic knowledge regarding the endocrine system (anatomy, physiology and pathology), the relationship between the main endocrine disorders and the musculoskeletal system.  The practical application of the knowledge gained through the endowment with specific skills to recognize the main manifestations of endocrine diseases and the application of balneophysiotherapeutic treatment methods in accordance with the specific pathology. |

**8. Contents**

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| **8.1. Lectures** | | **Teaching methods** | **Observations** |
| 1 | Elements of endocrine anatomy and physiology (main endocrine glands, secretory products, effects, regulation). | Video projection, interactive discussions | 2 hours |
| 2 | Acromegaly (elements of clinical and paraclinical diagnosis, the main osteo-articular changes, indications for recovery treatment, incidents and accidents during balneophysio-kinetotherapy and medical recovery). Stature-weight hypotrophy (clinical and paraclinical diagnostic elements, the main osteo-articular changes, indications for recovery treatment, incidents and accidents during balneo-physio-kinetotherapy and medical recovery). | Video projection, interactive discussions | 2 hours |
| 3 | Hypo/hyperthyroidism (elements of clinical and paraclinical diagnosis, the main osteo-articular changes, indications for recovery treatment, possible incidents and accidents during balneophysiokinetics therapy and medical recovery). | Video projection, interactive discussions | 2 hours |
| 4 | Hypo/hyperparathyroidism (elements of clinical and paraclinical diagnosis, the main osteo-articular changes, indications for recovery treatment, possible incidents and accidents during balneophysiokinetics therapy and medical recovery). | Video projection, interactive discussions | 2 hours |
| 5 | Hypo and hypercortisolism (elements of clinical and paraclinical diagnosis, the main osteo-articular changes, indications for recovery treatment, possible incidents and accidents during balneophysio-kinetotherapy and medical recovery). | Video projection, interactive discussions | 2 hours |
| 6 | Pheochromocytoma (clinical and paraclinical diagnostic elements, the main osteo-articular changes, indications for recovery treatment, possible incidents and accidents during balneophysio-kinetotherapy and medical recovery). | Video projection, interactive discussions | 2 hours |
| 7 | Osteoporosis (elements of clinical and paraclinical diagnosis, the main osteo-articular changes, indications for recovery treatment, possible incidents and accidents during balneophysio-kinetotherapy and medical recovery). | Video projection, interactive discussions | 2 hours |

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| **8.3. Bibliography:** |
| ***Mandatory:*** |
| 1. Lecture notes, PPT from e-Learning platform UMF Iasi 2. Cristina Preda, D Branisteanu, Maria-Christina Ungureanu, Letitia Leustean (coord.), Endocrinologie Clinica, Editura “Gr.T.Popa”, Iasi, 2021, ISBN: 978-606-544-764-6 3. Cristina Preda, Maria-Christina Ungureanu, Letitia Leustean (coord.), Ghid de endocrinologie ginecologica: de la adolescenta la femeia adulta, Editura “Grigore T. Popa”, Iasi, 2020, ISBN: 978-606-544-681-6 |
| ***Elective:*** |
| 1. C. Galesanu, Tulburari de crestere staturala si ponderala, Editura Gr. T. Popa, Iasi, 2007 2. C. Preda, Elemente de nursing in Endocrinologie, Editura 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 |
| 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 |  |
| 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:   * Minimum promotion condition: indications of balneophysiokinetotherapy, application of therapeutic programs using kinetotherapy procedures | | | |

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| Date | Holder of course / signature, | Holder of practical activities / signature, |
|  | Lecturer Cătălin Buzduga, MD, PhD |  |

11.09.2023

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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 |