**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:** INENGLISH |
| 1. **Subject data**
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| **2.1.** | **Subject: Rehabilitation in endocrine and metabolic diseases** |
| **2.2.** | **Module leader: Lecturer Maria Christina Ungureanu** |
| **2.3.** | **Seminar leader: Lecturer Maria Christina Ungureanu** |
| **2.4. Year of study** | **III** | **2.5. Semester in which is taught** | **I** | **2.6. Evaluation type** | C | **2.7. Subject status** | Mandatory  |

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** | 1 | **3.3.Seminar / l practical classes** | 1 |
| **3.4. Total number of learning hours** | 28 | **3.5. Courses** | 14 | **3.6. Seminar / practical classes** | 14 |
| **3.7. Distribution of the available time** | Hours |
| **Study based on the manual, lecture support, bibliography and hand notes** | 10 |
| **Supplementary documentation in the library, using specialised platforms via internet and by field work** | 10 |
| **Preparation for seminars / practical classes, study themes, reviews, portofolio, and essays** |  |
| **Tutorship** |  |
| **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. **Prerequisites (as needed)**

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| **4.1 Curriculum** | **-** |
| **4.2 Skills** | **-** |

1. **Conditions (as needed)**

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| **5.1. Lectures** | **Video logistical support** |
| **5.2. Seminars/Laboratories** | **The students will have suitable equipment** |

1. **Specific competences acquired**

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| Professional competences (expressed as knowledge and abilities) | **C1.2 Knowledge about endocrine diseases and syndromes** **C1.5 Development and application of new kynetotherapy protocols** **C2.2 Basic knowledge for explication and interpretation of opportunities in kynetotherapy program adapted to the treated region and type of pathology** **C2.5 Implementations of massage protocols****C3.5 Developing of new protocols for HTT****C5.1 Describing of articular and muscular technics, of functional scores and of QL appreciation** |
| Transverse competences (of role, of professional development, personal) | **CT1. Recognition of objectives, of available resources, of ending conditions, work phases, terms and ricks** **CT2. Roles identification, responsibilities, in a team, relationships technics application in the team and with the patient** |

1. **Course objectives (as in the cumulated competences chart)**

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| **7.1 General objective of the discipline** | * **Endocrine syndromes and disease explication, kynetotherapy programs, functional evaluation methods**
 |
| **7.2 Specific objectives** | **- Basic knowledge about endocrine system (anatomy , physiology and pathology), relationships between different endocrine diseases and muscle-bone system****- Practical application of knowledge about endocrine diseases and different methods of balneo-physiotherapy for specific endocrine** |

1. **Contents**

**8. 1. Course**

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|  | **Teaching methods** | **Obs** |
| 1. **Anatomy and physiology of endocrine system (principals endocrine glands, secretion products, effects, regulation). Acromegaly (clinical and paraclinical diagnosis, osteoarticular modifications, medical recovery treatment recommendation, accidents and incidents during medical recovery therapy and balneo-physiotherapy)**
2. **Small stature (clinical and paraclinical diagnosis, osteoarticular modifications, medical recovery treatment recommendation, accidents and incidents during medical recovery therapy and balneo-physiotherapy).**
3. **Hypo- and hyperthyroidism (clinical and paraclinical diagnosis, osteoarticular modifications, medical recovery treatment recommendation, accidents and incidents during medical recovery therapy and balneo-physiotherapy).**
4. **Hypo- and hyperparathyroidism (clinical and paraclinical diagnosis, osteoarticular modifications, medical recovery treatment recommendation, accidents and incidents during medical recovery therapy and balneo-physiotherapy).**
5. **Hypo- and hypercortizolism, feocromocytoma (clinical and paraclinical diagnosis, osteoarticular modifications, medical recovery treatment recommendation, accidents and incidents during medical recovery therapy and balneo-physiotherapy).**
6. **Osteoporosis (clinical and paraclinical diagnosis, osteoarticular modifications, medical recovery treatment recommendation, accidents and incidents during medical recovery therapy and balneo-physiotherapy).**
7. **Male and female hypogonadism (clinical and paraclinical diagnosis, osteoarticular modifications, medical recovery treatment recommendation, accidents and incidents during medical recovery therapy and balneo-physiotherapy)**
 | **Powerpoint presentations, interactive courses** | **2 hours****2 hours****2 hours****2 hours****2 hours****2 hours****2 hours** |

**8.2. Laboratory**

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| 1. **Patient with acromegaly – clinical exam (recognize of principal clinical symptoms sand signs), arterial pressure, weigh and height measuring, highlighting of principal osteoarticular elements, balneo-physiotherapy indications**
2. **Patient with hyperthyroidy – clinical exam (recognize of principal clinical symptoms sand signs), arterial pressure, weigh and height measuring, highlighting of principal osteoarticular elements, balneo-physiotherapy indications**
3. **Patient with hypothyroidy – clinical exam (recognize of principal clinical symptoms sand signs), arterial pressure, weigh and height measuring, highlighting of principal osteoarticular elements, balneo-physiotherapy indications**
4. **Patient with Cushing disease – clinical exam (recognize of principal clinical symptoms sand signs), arterial pressure, weigh and height measuring, highlighting of principal osteoarticular elements, balneo-physiotherapy indications**
5. **Patient with adrenal insufficiency – clinical exam (recognize of principal clinical symptoms sand signs), arterial pressure, weigh and height measuring, highlighting of principal osteoarticular elements, balneo-physiotherapy indications**
6. **Patient with hyperparathyroidism – clinical exam (recognize of principal clinical symptoms sand signs), arterial pressure, weigh and height measuring, highlighting of principal osteoarticular elements, balneo-physiotherapy indications**
7. **Patient with osteoporosis – clinical exam (recognize of principal clinical symptoms sand signs), arterial pressure, weigh and height measuring, highlighting of principal osteoarticular elements, balneo-physiotherapy indications**
 | **Cases, videos, experimental demonstrations, explications** | **2hours****2hours****2hours****2hours****2hours****2hours****2hours** |
| **Bibliography****mandatory****1. B. Ionescu, C. Dumitrache, Diagnosticul bolilor endocrine, Editura Medicala, Bucuresti, 1988.****2. C. Galesanu, Tulburari de crestere staturala si ponderala, Editura Gr. T. Popa, Iasi, 2007****selective****1. C. Preda, Elemente de nursing in Endocrinologie, Editura Gr. T. Popa, Iasi, 2009****2. E. Zbranca, Endocrinologie- ghid de diagnostic si tratament, Editura Polirom, editia a IIIa, Iasi, 2008** |

**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. |

1. **Evaluation**

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| **10.1. Activity type** | **10.2. Evaluation criteria** | **10.3. Evaluation method** | **10.3 Percentage of the final grade** |
| **10.4 Lecture** | **Lecture subjects** | **Written exam** | **50%** |
| **10.5 Seminar/laborator** | **Laboratories subjects****Periodical written tests** | **Practical activity** | **40%****10%** |
| **10.6 Minimal standards**  |
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| **The minimum condition for being promoted: balneo-physiotherapy indications, therapeutically programs application using kynetotherapy procedures** |

**Date of completion: Signature of head of discipline**

20.01.2017 Lecturer Maria Christina Ungureanu, Ph-D

**Department approval date**

30.01.2017

 **Head of the Departament Signature**

 Lecturer Matei Daniela Viorelia, Ph-D