**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 | | | | **Hygiene** | | **RE1212** |
| 2.2. Teaching staff in charge with lectures | | | | **Professor Florin Petrariu, MD, PhD** | | |
| 2.3. Teaching staff in charge with practical activities | | | | **Professor Florin Petrariu, MD, PhD** | | |
| 2.4. Year of study | **II** | 2.5. Semester | **2** | 2.6. The type of assessment | **Colloquium, C2** | |
| 2.7. Discipline type | | **Mandatory** | | **Domain 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 | | | | |  | 5 | |
| Supplementary documentation in the library, using specialised platforms via internet and by field work | | | | |  | 5 | |
| Preparation time for seminars / practical classes, study themes, reviews, portfolio and essays | | | | |  | 6 | |
| Tutorship | | | | |  | 2 | |
| Examinations | | | | |  | 2 | |
| Other activities | | | | |  | 6 | |
| 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 | Notions of Physiology, Biochemistry, Biophysic |
| 4.2. of competences | Knowledge of the physiological and pathological mechanisms at the level of the main systems of the human body |

5. **Conditions (where applicable)**

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

**6. Specific competences acquired**

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| **Professional competencies** | **C1.1** | Description of concepts, theories and fundamental notions of physiological and pathological mechanisms of the human locomotor system, recognition of clinical symptoms and signs, identification of physical therapy methods and techniques |
| **C1.2** | Formulation of hypotheses and operationalization of key concepts in order to explain syndromes and/or diseases |

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

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| 7.1. General objective | Learning the fundamental principles of Hygiene and Environmental Health |
| 7.2. Specific objectives | Knowledge of natural and artificial environmental factors and  the ways in which they affect health at the individual and community level. Knowledge of general notions about medical prevention and health education. |

**8. Contents**

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| **8.1. Lectures** | | **Teaching methods** | **Observations** |
| 1 | Energy requirements of the human body. Energy providing nutrients and non-energy-bearing nutrients. | Interactive debates  PowerPoint presentations  Video presentations | 2 hours |
| 2 | Food groups: nutritional value, Recommended Dietary Allowance and the effects of an inadequate consumption. | 2 hours |
| 3 | The role of air in maintaining health status. Biological air pollution (air contamination) and physical pollution (ionizing and non-ionizing radiations) in relation to human health. | 2 hours |
| 4 | The role of drinking water in maintaining health status.  Sources of drinking water. Central water supply to the population. | 2 hours |
| 5 | Use of mineral waters in balneo-physiokinetotherapy and rehabilitation/recovery procedures. | 2 hours |
| 6 | Fundamental aspects of children and teenager’s hygiene. | 2 hours |
| 7 | Healthy housing and professional exposure to artificial indoor environment (hospital, gym hall, recovery room). Sick building syndrome. | 2 hours |

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| **8.2. Practical activities - practical classes** | | **Teaching methods** | **Observations** |
| 1. | Methodology for conducting qualitative surveys  on nutrients and energy assessment of food intake. | Individual work  and teamwork | 2 hours |
| 2. | Methodology for conducting quantitative surveys on food groups. | 2 hours |
| 3. | Methodology for determining air pollution in an urban area. | 2 hours |
| 4. | Methodology for assessing the contamination of medical devices, surfaces, hands in the prevention of healthcare-associated infections. | 2 hours |
| 5. | Establishing the physical, chemical and microbiological  diagnosis of drinking water. | 2 hours |
| 6. | Establishing the corelative diagnosis of physical development  of children and teenagers. | 2 hours |
| 7. | Determination of the microclimate quality inside the house. | 2 hours |

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| **8.3. Bibliography:** |
| ***Mandatory:***  1. Lectures and practical work support posted on the *e-learning* platform of „Grigore T. Popa” U.M.Ph. from Iași  2. Cepoi V., Azoicăi D. *Ghid de management al infecțiilor asociate asistenței medicale,* ediția a II-a, București: Editura SC Global Management Arte, 2017.  3. Gavăt V, Petrariu F.D., Gavăt C.C., Azoicăi D. *Factorii de risc din mediu şi sănătatea*,  Iași: Editura EditDAN, 2001.  4. Gavăt V., Albu A., Petrariu F.D. *Alimentația şi mediul de viață în relație cu dezvoltarea copiilor şi a tinerilor,* Iaşi: Editura „Gr. T. Popa”, 2006.  5. Gavăt V. *Sănătatea mediului şi implicațiile sale în medicină,* Iaşi: Editura „Gr. T. Popa”, 2007. |
| ***Elective:*** |
| 7. <https://www.cdc.gov/nceh/publications/books/housing/cha02.htm>  8. Florin Petrariu, Adriana Albu, Hygiène – santé environnementale – Notes de cours, edit ,,Gr.T.Popa” UMF Iasi 2015 |

**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:   * Developing a food/nutrional survey. Assessing air and water quality. * Performing a correlative assessment of physical development of children and teenagers. | | | |

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| Date | Holder of course / signature, | Holder of practical activities / signature, |
| 13.09.2024 | Professor Florin Petrariu, MD, PhD | Professor Florin Petrariu, MD, PhD |

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| Date of approval in the Department Council/Teaching Council, | | |
| 19.09.2024 |  | Department director / signature, |
|  |  | Associate Professor Daniela-Viorelia Matei, MD, PhD |