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**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 | | | | **Nutrition and dietetics elements** | | **RE1112** |
| 2.2. Teaching staff in charge with lectures | | | | **Lecturer Luminita-Georgeta Confederat, MD, PhD** | | |
| 2.3. Teaching staff in charge with practical activities | | | | **Lecturer Luminita-Georgeta Confederat, MD, PhD** | | |
| 2.4. Year of study | **I** | 2.5. Semester | **2** | 2.6. The type of assessment | **Exam, E2** | |
| 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 | | | | |  | 10 | |
| 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 | | | | |  |  | |
| Tutorship | | | | |  | 2 | |
| Examinations | | | | |  | 2 | |
| Other activities | | | | |  | 4 | |
| 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 | - |
| 4.2. of competences | Knowledge of communication means between basic units of living matter and extracellular environment |

5. Conditions (where applicable)

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| 5.1. for lectures | Projector |
| 5.2. for seminars / practical classes | Students will wear protection equipement (white coat) |

6. Specific competences acquired

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| **Professional competencies** | **C1.3** | Formulation of hypotheses and operationalization of key concepts to explain syndromes and / or diseases.Application of kinetotherapy programs in relation to functional diagnosis and physician's indications, and also carrying out secondary prophylaxis. |
| **C 1.5** | Awareness of the importance and impact on human health preventive medicine. The ability to plan the use of resources and materials to effectively manage time budget.  Treatment of various diseases and conditions of the human body by using the specific means of physical therapy. |

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

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| 7.1. General objective | Knowledge of the principles and fundamentals elements of nutrition and dietetics. |
| 7.2. Specific objectives | Knowledge of general notions ofnutritional status, as well as establishing a diet in both acute and chronic diseases. The diet is important at all stages of life, in iatrogenic pathology and allergy, etc.  This discipline aims to guide the student on proper diet schemes for healthy and sick man. |

8. Contents

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| **8.1. Lectures** | | **Teaching methods** | **Observations** |
| 1 | 1. Physiological bases of nutrition. Digestion and absorption of the main food groups. The main macro and micronutrients. | Interactive lecture, discussions, explanations | 2 hours |
| 2 | 2. Healthy human diet (by age group). Normal eating behavior. Eating disorders: anorexia nervosa. Bulimia nervosa and other eating disorders. | 2 hours |
| 3 | 3. Nutritional status. Means for assessing nutritional status (anthropometric indices, laboratory explorations). Obesity and malnutrition. | 2 hours |
| 4 | 4. Stages of development and individualization of diet. Prophylactic diet, implementing the principles of nutritional education, assessing and monitoring the results. | 2 hours |
| 5 | 5.Curative diets. Food groups containing reduced: calories, carbohydrates, lipids, proteins, fiber. | 2 hours |
| 6 | 6. Principles of diet in nutrition and metabolic diseases (diabetes, rickets, malnutrition, obesity, dyslipidemia, inborn errors of metabolism) | 2 hours |
| 7 | 7. Principles of diet in cardiovascular (congenital heart disease, hypertension), digestive (cystic fibrosis, celiac disease, food intolerance, malabsorption syndrome, pancreatitis), renal (nephrotic syndrome, glomerulonephritis, chronic kidney disease), neurological diseases. | 2 hours |

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| **8.2. Practical activities - practical class** | | **Teaching methods** | **Observations** |
| 1 | Physiological bases of nutrition. Main food groups | Interactive lecture, discussions, | 2 hours |
| 2 | Healthy human diet | 2 hours |
| 3 | Eating disorders. Stages of development and individualization of diet. Prophylactic diet. | Case solvings, explanations | 2 hours |
| 4 | Principles of diet in diabetes mellitus and inborn errors of metabolism. | 2 hours |
| 5 | Principles of diet in malnutrition, obesity, metabolic syndrome, dyslipidemia, hyperuricemia. | 2 hours |
| 6 | Principles of diet in cardiovascular and renal diseases. | 2 hours |
| 7 | Principles of diet in digestive and neurological diseases. | 2 hours |

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| **8.3. Bibliography:** |
| ***Mandatory:*** |
| 1. Courses on E-learning platform  2. Ingrith Miron (editor-in-chief). Pediatrics, “Gr. T. Popa” UMF Iasi Ed. 2016. |
| 3. Andreea Gherasim, Otilia Nita, Alina Onofriescu. Practical Guide of Nutrition and Dietetics, "Gr. T. Popa" UMF Iasi Ed.2017  4. Handbook of Nutrition and Dietetics, Bogdan Mircea Mihai, Cristina Mihaela Lăcătuşu, Gina Eosefina Botnariu, Editura Gr. T. Popa, UMF Iași 2017 |

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| ***Elective:*** |
| 1. U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for Americans 2020-2025. 9th Ed. 2020. 2. Robert M. Kliegman et al. Nelson Textbook of Pediatrics (20th edition). Elsevier Ed. 2016 3. Bernadette P. Marriott, Diane F. Birt, Virginia A. Stallings, Allison A. Yates (editors). Present knowledge in nutrition. Basic nutrition and metabolism. Vol. 1 and 2. (11th edition). Academic Press Ed. 2020 4. Paul Insel, Don Ross, Kimberley McMahon, Melissa Bernstein. Discovering nutrition. (6th edition). Jones & Bartlett Learning Ed. 2019 |
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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 individual 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:   * Understanding and applying basic notions of Nutrition and Dietetics | | | |

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| Date | Holder of course / signature, | Holder of practical activities / signature, |
| 11.09.2024 | Lecturer Luminița Confederat, MD, PhD | Lecturer Luminița Confederat, 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 |