**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 | | | | **Medical Emergencies and First Aid** | | **RE1219** |
| 2.2. Teaching staff in charge with lectures | | | | **Lecturer Valentin Munteanu, MD, PhD** | | |
| 2.3. Teaching staff in charge with practical activities | | | | **Lecturer Valentin Munteanu, 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 | | | | |  | 10 | |
| 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 | | | | |  | 5 | |
| Tutorship | | | | |  | 4 | |
| Examinations | | | | |  | 4 | |
| Other activities | | | | |  | 2 | |
| 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 | Investigation and evaluation methods used in medical emergencies |
| 4.2. of competences | Knowledge of the macroscopic and microscopic structure of the organs and systems in the human body. Knowledge of investigation and evaluation techniques used in the assessment of organ/system functionality. |

5. **Conditions (where applicable)**

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| 5.1. for lectures | Video logistical support |
| 5.2. for seminars / practical classes | Students will wear protective equipment (Robe, Medical Clogs). |

**6. Specific competences acquired**

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| **Professional competencies** | **C 1.4** | The use of appropriate parameters in techniques for increasing joint mobility, muscle strength, coordination, balance, in improving some modified parameters  Critical interpretation of functional assessment scores, permanently updated according to international standards |
| **C5.4** | Critical interpretation of functional evaluation scores and quality of life permanently updated according to international standards |

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 application techniques, principles of operation and therapeutic effects of firs aid procedures |
| 7.2. Specific objectives | Knowledge of specific techniques and application methods used in medical emergencies |

**8. Contents**

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| **8.1. Lectures** | | **Teaching methods** | **Observations** |
| 1 | Basic Life Support | PPT presentation, video presentations, interactive discussions, | 2 hours |
| 2 | Advanced Life support | 2 hours |
| 3 | Hipovolemic Shock | 2 hours |
| 4 | Septic shock | 2 hours |
| 5 | First aid in Burns | 2 hours |
| 6 | First aid in cranio cerebral trauma | 2 hours |
| 7 | First aid in respiratory failure | 2 hours |

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| **8.2. Practical activities - practical class** | | **Teaching methods** | **Observations** |
| 1 | CPR ,AED, First Aid, | Demonstrations, practical applications | 2 hours |
| 2 | Ventilation on bag and masck, Heimlich maneover | 2 hours |
| 3 | Types of solutions for volemic replacement, types of inotropic and vasoactive agents | 2 hours |
| 4 | Signs and simptoms in septic shock, Quick SOFA | 2 hours |
| 5 | Burns:Rule of 9, Baux index, Parkland formula | 2 hours |
| 6 | Glasgow score,neurologic signs in cranio-cerebral trauma | 2 hours |
| 7 | Devices for management of respiratory failure(masks, bag, CPAP, Hi-Flow, traheal tube, ventilator) | 2 hours |

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| **8.3. Bibliography:** |
| ***Mandatory:***   1. Discipline lectures from E-learning platform 2. Advanced Cardiac Life Support (ACLS) Provider Handbook by Dr . Karl Disque, 2016 3. Basic Life Support (BLS) Provider Handbook by Dr. Karl Disque, Satori Continuum Publishing, 2021 4. CPR, AED and First Aid by Karl Disque, 2021 |
|  |
| ***Elective:*** |
| 1. Surviving sepsis campaign 2023  2. Antonino Gullo, Anaesthesia, Pharmacology, Intensive Care and Emergency Medicine, Springer, 2011 |
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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 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:   * Recognition and and first aid in cardiac arrest * First aid in respiratory failure | | | |

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| Date  10.09.2024 | Holder of course / signature,  Lecturer Valentin Munteanu, MD, PhD | Holder of practical activities / signature,  Lecturer Valentin Munteanu, 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 |