**SYLLABUS**

1. **Programme Details**

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| **1.1.** | **GRIGORE T. POPA UNIVERSITY OF MEDICINE AND PHARMACY IASI** |
| **1.2.**  | **FACULTY : MEDICINE / DEPARTMENT:** MEDICINE PREVENTIVEAND INTERDISCIPLINARITY |
| **1.3.** | **DISCIPLINE: LABOUR MEDICINE** |
| **1.4.**  | **FIELD of STUDY: HEALTH** |
| **1.5.** | **STUDY CYCLE: BACHELOR**  |
| **1.6.** | **PROGRAMME of STUDY: English**  |
| 1. **Discipline Details**
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| **2.1.** | **Name of the Discipline: OCCUPATIONAL MEDICINE** |
| **2.2.** | **Teaching staff in charge with lectures: CONF. DR. VERONICA OPREA, S.L. DR. GURZU IRINA LUCIANA** |
| **2.3.** | **Teaching staff in charge with seminar activities: CONF. DR. VERONICA OPREA, S.L. DR. GURZU IRINA LUCIANA, ASIST. LOREDANA NICOLETA HILITANU** |
| **2.4. Year**  | **2019-2020** | **2.5. Semester** | **I / II** | **2.6. Type of evaluation**  | C1/C2 | **2.7. Discipline regimen**  | Mandatory |

1. **Overall Time Estimates (hours/semester of didactic activity)**

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| * 1. **Number of hours per week**
 | **4** | **Of which: 3.2. lectures** | **2** | * 1. **seminar/ laboratory**
 | **2** |
| * 1. **Total hours in the curriculum**
 | **28** | **Of which: 3.5. lectures** | **14** | **3.6. seminar/ laboratory** | **14** |
| **Distribution of time**  |  |  |  |  | Hours |
| **Study time using course book materials, bibliography and notes**  | **14** |
| **Further study time in the library, online and in the field** | **16** |
| **Preparation time for seminars / laboratories, homework, reports, portfolios and essays** | **14** |
| **Tutoring** |  |
| **Examinations** | **6** |
| **Other activities** |  |
| **3.7. Total hours of individual study** |  | **47** |
| **3.8. Total hours / semester** |  | **75** |
| **3.9. Number of credits** |  | **3** |

1. **Prerequisites (where applicable)**

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| **4.1. curriculum** |  |
| **4.2. competences** |  |

1. **Conditions (where applicable)**

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| **5.1. for lecture delivery** |  |
| **5.2. for seminar / laboratory delivery** |  |

1. **Specific Competences Acquired**

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| **Professional Competences (knowledge and skills)** | 1. Basic pulmonary function tests: Spirometry, specific and nonspecific tests for the diagnosis of occupational respiratory pathology (asthma, bisinosis, chronic bronchitis, COPD, alveolitis)
2. Correct interpretation of radiological changes in silicosis
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| **Transversal Competences (roles, personal and professional development)** | 1. Communication skills of students with a patient from an environment with occupational risk to undertake a proper professional anamnesis
2. Assessment of an occupational disease case to establish the diagnosis of professionalism or denial of professionalism, the general principles of signaling, communication and referral of suspected cases of occupational diseases, maintains permanent contact with family and occupational physician
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1. **Objectives of the Discipline (related to the acquired competences)**

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| **7.1. General Objective** | Theoretical and practical information for students in occupational medicine and occupational pathology |  |
| **7.2. Specific Objectives** | 1. Occupational risk assessment and control programs of Occupational Medicine (organizational management, ergonomics, health)
2. Institutional and legal provisions consistent with the conventions and recommendations of international bodies.
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1. **Contents**

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| **8.1. Lecture** | **Teaching methods**  | **Comments** |
| 1. Occupational Medicine/Occupational Health: definition, objectives, the concept of pluridisciplinary specialty, working capacity, tiredness in the working process (neuro-sensitive and musculoskeletal overload), professional effort (adaptive responses). Occupational noxious/hazards: definition, classification, occupational risk assessment. Definition of occupational diseases and work-related diseases, work accidents. | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 2. Occupational exposure to physical factors: noise, unfavorable indoor environment, vibrations, non-ionizing radiations, laser radiations and related pathology | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 3. Occupational exposure to mineral powder: definition and classification of pneumoconiosis. Silicosis, asbestosis: workplaces, job exposure, positive occupational diagnosis, prevention | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 4. Occupational exposure to irritants and sensitizing agents: classification, lung clearance processes, impact with the biological structures (bronchial hyperreactivity). Bronchial asthma: definition, classification, occupational etiological agents, criteria of professionality, reorientation and reconversion problems | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 5. Occupational exposure to toxic substances - mechanisms of action, chemically induced carcinogenicity - problems of health and safety protection in the environment with toxicological risk. Occupational poisoning with lead, mercury (metallic, organic and inorganic compounds): etiology, diagnosis, prophylaxis by medical and technical- administrative measures.  | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 6. Occupational exposure to organic solvents: Classification, general characteristics, mechanisms of action (central or peripheral neurotoxicity). Professional poisoning with aromatic hydrocarbure (benzene) and halogenated hydrocarbure; Occupational poisoning with asphyxiating substances: carbon monoxide, cyanhidric acid and cyanic compounds, irritating gases and vapors - etiology, diagnosis, treatment, prophylaxis by medical and technical- administrative measures. | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 7. Occupational risks assessment in the health-care system: classification, nosological entities, ergonomics and legislative aspects. | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| **Bibliography** 1. Brânduşa Constantin, Cornelia Mihalache, Veronica Oprea, *“Occupational Health”-* second volume, Ed. “Gr.T.Popa” Iaşi, 2003.
2. Agius R, Seaton A. Practical Occupational Medicine, 2nd edition, Hodder Arnold Publisher, London, 2005.
3. Encyclopaedia of occupational health and safety, <http://www.iloencyclopaedia.org/>
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| **8.2. Seminar / Laboratory** | **Teaching methods**  | **Comments** |
| 1. Methodology for workers' health surveillance (medical examination at employment, adaptation, periodical medical examinations, fitness for work). The protection of maternity at work. | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 2. Interpretation of radiographic pulmonary changes in pneumoconiosis. | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 3. Paraclinical explorations in professional pathology: ventilation parameters measurement, bronchial reactivity tests, liminal tonal audiometry, indicators of biological effect in practice of occupational medicine: methodology, technique, interpretation | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 4. The importance of occupational history and necessary documents for the the diagnosis of professionality | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 5. Occupational respiratory diseases: case reports, silicosis, bronchial asthma, professional chronic bronchitis syndrome, professional upper airway irritation, occupational lung emphysema | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 6. Occupational toxicology: presentations of clinical cases - occupational chronic poisoning with metals (lead, mercury), organic solvents, irritative gases and vapours, asphyxiating substances | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| 7. Occupational diseases caused by musculoskeletal and neuro-sensitive overload and work-related diseases: definition, classification, follow-up and importance of follow-up by occupational health service, rehabilitation and reconversion.  | - Interactive lectures- PowerPoint Projections, movies / images real job commented- presentation of personal clinical experience  | Simulation and thematic discussions focused on information from the lectures |
| **Bibliography**1. Brânduşa Constantin, Cornelia Mihalache, Veronica Oprea, Irina Ligia Mihalache, “*Occupational Health* – first volume, Ed. Spectrum, Iaşi, 2000.
2. Encyclopaedia of occupational health and safety, <http://www.iloencyclopaedia.org/>
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1. **Correlations between the contents of the discipline and the expectations of the epistemic community, of professional associations and of employers in the 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. As primary goal the discipline intends to offer the students optimal background for the following years of study in the program for License in Medicine, in the perspective of successfully hiring, immediately after graduation, in residence programs from Romania and other EU countries |

1. **Evaluation**

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| **Type of activity**  | **10.1. Evaluation criteria:**  | **10.2. Methods of evaluation** | **10.3. Percentage of final grade** |
| **10.4. Lecture** | Grade for multiple choice test | standardized multiple choice test | 50% |
| **10.5. Seminar / Laboratory** | Average grade of ongoing examinations | ongoing evaluation | 10% |
| Grade for practical examination | practical exam | 40% |
| **Minimum standard of performance: at least grade 5 to pass the discipline** |

**Date: 11.10.2019**

 **Signature of Didactic Coordinator**

**Conf. Dr. VERONICA OPREA**

 **Signature of Department Director Conf. Dr. PETRARIU FLORIN**