MATER OF STUDY FILE

1. **Programme Details**

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| **1.1.** | **GRIGORE T. POPA UNIVERSITY OF MEDICINE AND PHARMACY IASI** | | | | | | |
| **1.2.** | **FACULTY : MEDICINE / DEPARTMENT: 5- MEDICAL SPECIALTIES III** | | | | | | |
| **1.3.** | **DISCIPLINE: LEGAL MEDICINE** | | | | | | |
| **1.4.** | **FIELD of STUDY: HEALTH** | | | | | | |
| **1.5.** | **STUDY CYCLE: LICENSE** | | | | | | |
| **1.6.** | **PROGRAMME of STUDY: MEDECINE English** | | | | | | |
| 1. **Discipline Details** | | | | | | | |
| **2.1.** | **Name of the Discipline: LEGAL MEDICINE** | | | | | | |
| **2.2.** | **Teaching staff in charge with lectures: Prof. Dr. Beatrice Gabriela Ioan, Prof. Dr. Diana Bulgaru Iliescu** | | | | | | |
| **2.3.** | **Teaching staff in charge with seminar activities: Asist. Dr. Sofia David**  **Asist. Drd. Bianca Hanganu, Asist. Drd. Mădălina Maria Diac** | | | | | | |
| **2.4. Year** | **VI** | **2.5. Semester** | **I/II** | **2.6. Type of evaluation** | **E1/E2** | **2.7. Discipline regimen** | **Obligatory** |

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** | 56 | **Of which: 3.5. lectures** | | 28 | **3.6. seminar/ laboratory** | 28 |
| **Distribution of time** |  |  | |  |  | Hours |
| **Study time using course book materials, bibliography and notes** | | | | | | 30 |
| **Further study time in the library, online and in the field** | | | | | | 10 |
| **Preparation time for seminars / laboratories, homework, reports, portfolios and essays** | | | | | | 25 |
| **Tutoring** | | | | | |  |
| **Examinations** | | | | | | 4 |
| **Other activities** | | | | | | - |
| **3.7. Total hours of individual study** | | |  | | | 69 |
| **3.8. Total hours / semester** | | |  | | | 125 |
| **3.9. Number of credits** | | |  | | | 5 |

1. **Prerequisites (where applicable)**

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| **4.1. curriculum** | **Anatomy, Morhopathology, Physiology, Medical Genetics, Physiopathology, Medical Clinics, Surgery, Toxicology, Paediatrics,** |
| **4.2. competences** | **Not necessary** |

1. **Conditions (where applicable)**

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| **5.1. for lecture delivery** | **Access to projector, laptop** |
| **5.2. for seminar / laboratory delivery** | **- Access to the necropsy room of the Institute of Forensic Medicine Iasi, where the students will assist in conducting necropsies.**  **• Access to the internal video network of the Institute of Forensic Medicine Iasi, where students can see in real time images transmitted from the autopsy room and registered necropsies.**  **• Access to the laboratories of the Institute of Forensic Medicine Iasi for students to familiarize themselves with various forensic activities.**  **• Possibility to examine traumatized patients addressing the Forensic Institute for examination.**  **• Access to the Institute of Forensic Medicine Iasi casuistry**  **• Access to video projector and laptop** |

1. **Specific Competences Acquired**

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| **Professional Competences (knowledge and skills)** | **- The diagnosis of clinical death in necropsy room**  **- Knowledge of legal situations of request for and procedures for forensic examinations in living persons (traumatology, psychiatric expertize, parentage etc) and the dead body (necropsy)**  **- Completing methodology of the death certificate**  **- Description and interpretation of violence bodily injuries**  **- Knowledge of lethal syndromes and issues lesion specific to various causes of death.** |
| **Transversal Competences (roles, personal and professional development)** | **- Ethical standards in handling and examining cadavers**  **- Integration of acquired knowledge from other disciplines in medico-legal and legal context.** |

1. **Obiectives of the Discipline (related to the acquired competences)**

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| **7.1. General Obiective** | Students acquire theoretical and practical knowledge of legal medicine and law useful in their clinical practice |
| **7.2. Specific Obiectives** | Students know the circumstances and procedures for forensic examinations of living persons (traumatology, psychiatric parentage etc.) and corpses (necropsy)  Students can recognize signs of violence and could interpret them correctly.  Students know and correctly apply the criteria for diagnosing death in necropsy room.  Students know to fill in the death certificate.  Students know the lethal syndromes and specific injuries in different causes of death. |

1. **Contents**

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| **8.1. Lecture** | | **Teaching methods** | | **Comments** |
| **Lecture 1 – Legal Medicine : definition , field of study historical evolution in the context of the evolution of legal and medical knowledge**  **-Regulation of the medico- legal activity,**  **- The role and value of forensic evidence in court**  **- Organization of the medico-legal field in Romania**  **- Links between legal medicine and law** | | **Lecture** | | **2h** |
| **Lecture 2 - Forensic thanatology**  **- Defining the stages of death**  **- Criteria for the diagnosis of death**  **- Agony; importance for medico-legal evaluation**  **- Lethal syndromes** | | **Lecture** | | **2h** |
| **Lecture 3 - Injuries: definition, classification, evolution, and method and timing of healing, effects on life and health.**  **- definition, classification and macroscopic aspects of injuries**  **- Description and interpretation of the injuries**  **- Abused child syndrome** | | **Lecture** | | **2h** |
| **Lecture 4 - Death and injury arising from shooting.**  **- Ballistics notions.**  **- The description of the shotgun wound: the inlet, channel and the outlet of the projectile.**  **- Medico-legal issues in death and injuries by gunshot** | | **Lecture** | | **2h** |
| **Lecture 5- Injuries and death by head trauma**  **- Mechanisms**  **- Injuries of soft tissue, bones and brain**  **- Medico-legal issues in head trauma** | | **Lecture** | | **2h** |
| **Lecture 6- Injuries and death by traffic accidents**  **- Mechanisms of producing and specific injuries in road, rail and airplane accidents.**  **- Alcohol and road accidents** | | **Lecture** | | **2h** |
| **Lecture 7- Injuries and death by mechanical asphyxiation**  **- Definition, classification**  **- General signs of asphyxiation**  **- Specific injuries in hanging, strangulation, choke, ports and airways obstruction, thoraco-abdominal compression, drowning.**  **- Death mechanisms in mechanical asphyxiation** | | **Lecture** | | **2h** |
| **Lecture 8- Injuries and death by fall to the same level and falls from height**  **-causes and facilitating factors**  **- fall at the same level: lesional aspects and causes of death**  **- fall from height: lesional aspects and causes of death** | | **Lecture** | | **2h** |
| **Lecture 9- Injuries and death by physical factors**  **- burns and hyperthermia- injuries, death mechanisms**  **- frostbite and hypothermia- injuries, death mechanisms**  **- electrocution - characteristics of electricity, injuries, death mechanisms**  **- lightning - injuries, death mechanisms** | | **Lecture** | | **2h** |
| **Lecture 10- Injuries and death by poisoning.**  **- General notions about toxic, poisoning**  **- Poisoning by CO, methemoglobin substances, caustic /corrosive toxics, ethanol, methanol, pesticides, illicit drugs - injuries, death mechanisms** | | **Lecture** | | **2h** |
| **Lecture 11- Injuries and death by biological factors**  **- stings by bee, wasp, and spiders,**  **- bite by animals (dog, cat, horse, reptiles)**  **- mushroom poisoning** | | **Lecture** | | **2h** |
| **Lecture 12- Medico-legal expertise in rape, abortion and killing newborn by mother**  **- rape: legal provisions, injuries**  **- abortion: legal provisions, injuries**  **- killing newborn by the mother: legal provisions, injuries, medico-legal examination of the corpse of the newborn, medico-legal expertise of the mother** | | **Lecture** | | **2h** |
| **Lecture 13- Sudden death in children and adults**  **- causes of sudden death in adults**  **- causes of sudden death in children** | | **Lecture** | | **2h** |
| **Lecture 14- Professional responsibility in medical practice**  **- malpraxis**  **- disciplinary responsibility**  **- criminal liability** | | **Lecture** | | **2h** |
| **Bibliography**  Bulgaru Iliescu D., Knieling A., Scripcaru C. Forensic Medicine, Ed. Gr.T.Popa Iași, 2015  Ioan B., Bulgaru Iliescu D., Scripcaru C., Knieling A. Forensic Medicine, Ed. Junimea Iași, 2003  Knight B. Forensic Pathology. London: Edward Arnold, 1991 | | | | |
| **8.2. Seminar / Laboratory** | **Teaching methods** | | **Comments** | |
| **LP I**  **Presentation of the main sectors of the Legal Medicine**  a. expertise on corpses – medico-legal necropsy  b. expertise on living person (traumatologic expertise, expertize with a view of postponement of punishment etc.)  c. Other types of expertise: toxicology, histopathology, serology, anthropological**.**  **Presentation of the main medico-legal documents** | Interactive lecture  Case presentation | | 2 hours  Students will sign a **confidentiality agreement** - not to disseminate information on cases presented to them | |
| **LP II**  **Forensic autopsy**  **-** Situations and procedure of requesting  - Objectives of the forensic autopsy  - Rules for conducting forensic autopsy  - Forensic autopsy technique  - Establishing the certificate confirming death | Interactive lecture  Video-presentation of the necropsy technique (the internal video network of IML Iasi). | | 2 hours  Before entering the necropsy room, students will be introduced protection rules to be complied with. | |
| **LP III**  **Forensic autopsy different causes of death (I)** | Assisting to a forensic autopsy- in the autopsy room | | 2 hours  Students will wear protective clothing: gown, gloves and mask | |
| **LP IV**  **Forensic autopsy different causes of death (II)** | Assisting to a forensic autopsy- in the autopsy room | | 2 hours  Students will wear protective clothing: gown, gloves and mask | |
| **LP V**  **Forensic autopsy different causes of death (III)** | Assisting to a forensic autopsy- in the autopsy room | | 2 hours  Students will wear protective clothing: gown, gloves and mask | |
| **LP VI**  **Forensic autopsy different causes of death (IV)** | Assisting to a forensic autopsy- in the autopsy room | | 2 hours  Students will wear protective clothing: gown, gloves and mask | |
| **LP VII**  **Forensic autopsy different causes of death (V)** | Assisting to a forensic autopsy- in the autopsy room | | 2 hours  Students will wear protective clothing: gown, gloves and mask | |
| **LP VIII**  **The manner of description and interpretation of injuries to living person**  **Assessing the gravity of traumatic injuries**  **Medico-legal certificate**  **Forensic traumatological expertise** | Interactive lecture  Illustration photoes/slides | | 2 hours | |
| **LP IX**  **Examination of injured living person (I)**  Description of the injuries  Establishing the mechanism of producing the injuries  Trauma severity assessment | Examination of traumatized person  Illustration based forensic documents (medical certificate, forensic expertise) | | 2 hours  Examination of traumatized people will be made only with their written informed consent | |
| **LP X**  **Examination of injured living person (II)**  Description of the injuries  Establishing the mechanism of producing the injuries  Trauma severity assessment | Examination of traumatized person  Illustration based forensic documents (medical certificate, forensic expertise) | | 2 hours  Examination of traumatized people will be made only with their written informed consent | |
| **LP XI**  **Examination of injured living person (III)**  **Description of the violence lesions**  **Opinions regarding the mechanism production of injuries**  **Trauma severity assessment** | Examination of traumatized person  Illustration based forensic documents (medical certificate, forensic expertise) | | 2 hours  Examination of traumatized people will be made only with their written informed consent | |
| **LP XII**  **Psychiatric expertise in civil and criminal cases** | Demo case:  - images/photos illustrating the connection between various psychiatric disorders and antisocial acts  - Cases from IML Iaşi archive | | 2 hours | |
| **LP XIII**  **Forensic Serology** | Practical demonstration:  -Determining a group of blood in living person and corpes  - Methods of identification of biological products (blood, semen, amniotic fluid, etc.), corpus delicti  - Examination of the hair on optical microscope  - vaginal smear in cases of rape – determining of the sperm | | 2 hours  Before going to the serology lab, students will be trained on the rules of behavior and protection which must comply | |
| **LP XIV**  **Histopathological examination in forensic practice**  **Forensic toxicology** | Practical demonstration:  - Microscopic aspects in various causes of violent death  - Ethanol intoxication in drivers : clinical examination, examination sheet, BAC determination  - determination of toxics in samples harvested from the coprses and living persons | | 2 hours  Before going to histopathology and toxicology labs, students will be trained on the rules of behavior and protection which must comply | |
| **Bibliography**  Ioan B., Scripcaru C., Bulgaru Iliescu D. Forensic Medicine. Practical works for students, Ed. Junimea Iași, 2000 | | | | |

1. **Correlations between the contents of the discipline and the expectations of the epistemic community, of profesional associations and of employers in the field**

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| Knowledge and skills are set as objectives mentioned as such in teaching and curricula reviewed annually. After analysis within the discipline, they are discussed and approved at the Bureau of Curriculum, to harmonize with other disciplines. Throughout the period evaluated systematically possible direct correlation between content and expectations of the academic community, representatives of the community, professional associations and employers. As a primary goal, discipline aims to give students the best prerequisites towards successful employment immediately after graduation in residency programs in 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:**

**1.10.2019 Signature of Didactic Co-ordinator**

**Prof. Dr. Ioan Beatrice Gabriela**

**Signature of Department Director Prof. Dr. Gheucă Solovăstru Laura**