

Master's Degree in Dentistry and Dental Prosthetics 2023/2024

Integrated Teaching: Forensic and occupational medicine

Scientific Disciplinary Sectors: MED/44, MED 43

Responsible Professor: Prof. [Antonio Pietroiusti](#); e-mail: antonio.pietroiusti@unicamillus.org

Number of University Educational Credits (CFU): 5

Module: Occupational Medicine

Scientific Disciplinary Sector: MED 44

Number of University Educational Credits (CFU): 2

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Module: Forensic Medicine

Scientific Disciplinary Sector: MED 43

Number of University Educational Credits (CFU): 3

Professor: Prof. [Michele Farinacci](#); e-mail: michele.farinacci@unicamillus.org

PREREQUISITES

There are no mandatory prerequisites. Basic knowledge is required in the following subjects: medical physics, cell and general biology, medical genetics, physiology, biochemistry, microbiology, hygiene and environmental prevention.

LEARNING OBJECTIVES

The integrated teaching of Occupational and Forensic Medicine has the aim to provide the students the knowledge of the regulatory framework for maintaining the health and safety (H&S) both at individual and community level in the occupational setting; knowledge of the legislation and practice for health promotion and the ability to recognize situations of specialistic pertinence. Knowledge of the norms regulating health organization and their applications in occupational medicine is also required. The students will also acquire knowledge of the legal and ethical rules that are essential for the exercise of the healthcare professional by highlighting the limits, prerogatives, rights and behavioural duties in health care, with particular reference to the professional responsibility of the practitioner and informed consent, with detailed mention to the dentist; scientific and technical knowledge useful for carrying out of technical advice as required by the Administration of Justice; with particular regard issues related to the causal link, tanatochronology, injuries in cadaver and in the living individuals, identification, and assessment of damage to the person in relation to specific situations of impairment; knowledge of the Italian system of social protection and security in relation to the specific protected event; knowledge of trauma by the different causes, asphyxia and toxicology.

LEARNING OUTCOMES

Knowledge and understanding

At the end of the course, the student must have acquired the following knowledge:

- Meaning of Occupational Medicine.
- Temporal evolution of legislative aspects.
- General and specific risks for workers.
- Methods for risk assessment.
- Health surveillance.
- Fitness and unfitness for work.
- Understanding of the basilar principles of Occupational Medicine.
- Ability to perform risk assessment, and the steps of health surveillance.
- Knowledge of the criteria of risk assessment and ability to apply them.
- Knowledge of Italian legislation of health interest.
- Essential knowledge of the Italian judicial system.
- Knowledge of legislation related to sectorial and mortuary, judicial and sanitary types of activities.
- Understanding the importance of macro and microscopic sectorial activity and differential diagnosis.
- Ability to describe the main aspects of forensic pathology with attention to different types of injuries.

Applying knowledge and understanding

At the end of the course, the student will be able to:

- Translate the acquired knowledge into the future occupational activities.
- Provide a differential diagnosis based on the results of sectorial activities, examining data arising from inspection of scene crime and previous clinical picture.
- Participate in the study or discussion of cases related to forensic pathology of healthcare professionals, by civil, penal.
- Order compulsory registration, disciplinary and administrative-accounting professional responsibility.

Communication skills

At the end of the course, the student will achieve:

- The proper use of the specific H&S scientific terminology.
- The ability to provide elements for the specific language of the matter.

Making judgements

At the end of the course, the student will achieve:

- The ability to perform general assessments related to the topics covered.
- The ability to provide elements for an independent judgment on the legal dispute and the medical-legal issue under consideration.

Learning skills

- Ability to apply a study and learning method that will be adequate to deepen the topics of the course with a high degree of autonomy.

COURSE SYLLABUS

Occupational medicine

KEY CONCEPTS:

1. Occupational Risk
2. Occupational Disease
3. Accident at work
4. Health surveillance

Topic I. Historical evolution of Occupational Medicine (Castellino, Anzelmo, Castellani, Pofi. Breve storia della Medicina del lavoro in Italia. Pag 15-165)

Topic II Chemical risk in Occupational Medicine (Perbellini, Sartorelli, Satta, Cocco, Genovese, Monaco, Miraglia, Oddone, Taino, Imbriani, Colosio, Candura, Manzo. Parte Terza Agenti Chimici. In "Manuale di Medicina del Lavoro" a cura di Tomei, Candura, Sannolo, Sartorelli, Costa, Perbellini, Larese-Filon, Maestrelli, Magrini, Bartolucci, Ricci. Pag 165-245)

Topic III Risk related to physical agents (De Vito, Riva, Cassano, Tomei, Suppi, Albera, Pimpinella, Peretti, Pasqua di Bisceglie, Gambelunghe, Abbritti, Trenta, Gobba. Parte Seconda. Agenti Fisici. In "Manuale di Medicina del Lavoro" a cura di Tomei, Candura, Sannolo, Sartorelli, Costa, Perbellini, Larese-Filon, Maestrelli, Magrini, Bartolucci, Ricci. Pag 109-161)

Topic IV. Biological risk (Porru, Arici, Rosati, Giubilati, Suppi, Fidanza, Ricci, Nardone, Tomei. Parte Quarta. Agenti Biologici. In "Manuale di Medicina del Lavoro" a cura di Tomei, Candura, Sannolo, Sartorelli, Costa, Perbellini, Larese-Filon, Maestrelli, Magrini, Bartolucci, Ricci. Pag 249-269)

Topic V. Alcohol and drug abuse at work (Bordini, Briatico-Vangosa. Parte Quinta. Alcol e droghe sul luogo di lavoro. In "Manuale di Medicina del Lavoro" a cura di Tomei, Candura, Sannolo, Sartorelli, Costa, Perbellini, Larese-Filon, Maestrelli, Magrini, Bartolucci, Ricci. Pag 347-352)

Forensic medicine

- Introducing to the discipline. Definition, history and sections
- Deontology, ethical principles and bioethics
- Professional secret
- Medical judicial report
- Informed consent
- Causality nexus and medical-legal causation
- Medical records
- Tanatology, tanatocronology, identification and inspection
- Traumatology. Asphixia and toxicology
- The assessment of damage to the person

- Public or compulsory insurance
- Professional responsibility of health care professionals
- Professional responsibility of the dentist
- Court administration technical counseling
- Re-examination of most important topics in legale medicine

COURSE STRUCTURE

The Course is structured in 50 hours of frontal teaching (20 for Occupational Medicine and 30 for Forensic Medicine). Tools such as power point presentation, diagrams, movies and animations will be used in support of the explanation of the single topics. An in depth seminar of 3 hour duration will be delivered for each module. A 3 hour specific seminar of Occupational Medicine will be devoted to the following topic “New risk factors in occupational medicine: nanomaterials, microplastics and nanoplastics”.

COURSE GRADE DETERMINATION

The Course grade determination will be assessed through a multiple-choice written test aimed to verify the student's ability to making judgments, communication skills and learning skills according to the Dublin descriptors. The test will include 30 questions (15 regarding Occupational Medicine and 15 regarding Forensic Medicine), each of which will attribute 1 point in the case of a correct answer, and will last 30 min. No penalty will be given in the case of wrong answers. The minimum threshold for considering the test as successful is a mark of 18. The test will be evaluated according to the following criteria:

Failed: Relevant weaknesses and/or inaccuracies in knowledge and understanding of the topics. Limited analytical and syntetic capabilities.

18-20: Sufficient knowledge and understanding, with possible inaccuracies. Sufficient analytical and synthetic capabilities, and proper personal judgment.

21-23 Average knowledge and understanding. More than sufficient analytical and synthetic capabilities.

24-26 Knowledge and understanding in the upper 50%. Good analytical and synthetic capabilities.

27-29 Extensive knowledge and understanding of the topics. Relevant analytical and syntetic capabilities. Good proper personal judgment.

30-30L Impressive knowledge and understanding of the topics. Very good analytical and synthetic capabilities, and proper personal judgment.

During the teaching course a test aimed to verify possible deficit in understanding will be administered for each module. This intermediate test will not impact on the evaluation of the exam test.

Students achieving a mark of at least 18 points will be offered the possibility to perform an integrative oral exam, aimed to a further in depth evaluation of the knowledge and understanding of the various topics, of their analytical and synthetic capabilities and of their personal judgment. A relevant portion of the oral exam will be devoted to evaluate their communication ability. At the end of the oral exam, the mark achieved with the written test may be maintained, or increased, or decreased. A final evaluation of failure in passing the exam will be also possible.

READING MATERIALS

- “Manuale di Medicina del Lavoro” a cura di Tomei, Candura, Sannolo, Sartorelli, Costa, Perbellini, Larese-Filon, Maestrelli, Magrini, Bartolucci, Ricci. Pag 1-526
- “Medicina del Lavoro. Manuale per le professioni sanitarie” Sacco, Ciavarella, De Lorenzo. Pag 1-195
- American college of legal medicine, Legal Medicine, Mosby Elsevier Press
- Clark Michael and Crawford Catherine, Legal Medicin in history, Cambridge University press
- Puccini Clemente, Istituzioni di medicina legale, CEA
- De Leo Domenico – Orrico Marco, Medicina legale e delle assicurazioni in odontoiatria e protesi dentaria, Edizioni Libreria Cortina Verona
- Società italiana di medicina legale e delle assicurazioni, linee guida per la valutazione medico-legale del danno alla persona in ambito civilistico, Giuffrè Editore