

Degree course Biomedical Laboratory Techniques

INTEGRATED COURSE: ECONOMICD AND SOCIAL AND INTERNATIONAL POLITICS

CFU: 11

SSD: SECS P/07, MED/42, MED/44, SECS P/02

COORDINATOR: FAUSTO CICCACCI E-MAIL: fausto.ciccacci@unicamillus.org

MODULE: Business administration

CFU: 2

SSD: SECS P/07

Professor: Prof. Fabio Fiano fabio.fiano@unicamillus.org / office hours by appointment

MODULE: Forensic medicine

CFU: 1

SSD: MED/43

Professor: Prof.ssa Margherita Pallocci margherita.pallocci@unicamillus.org / office hours by appointment

MODULE: Hygiene and environmental prevention

CFU: 1

SSD: MED/42

Professor: Prof. Fausto Ciccacci fausto.ciccacci@unicamillus.org / office hours by appointment

MODULE: Political economy

CFU: 4

SSD: SECS P/02

Professor: Prof. Matteo Ruggeri matteo.ruggeri@unicamillus.org / office hours by appointment

MODULE: Occupational medicine

CFU: 1

SSD: MED/44

Professor: Prof. Pietroiusti Antonio antonio.pietroiusti@unicamillus.org /office hours by appointment

MODULE: History of medicine

CFU: 2

SSD: MED/02

Professor: Prof. Marco Mattei marco.mattei@unicamillus.org / office hours by appointment

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. Moreover, basic concepts of health and illness, determinants of health and the main strategies for prevention of infectious and non-communicable diseases are required.

LEARNING OBJECTIVES

Provide students with a set of basic business tools, useful for understanding the managerial dynamics of both public and private structures.

Aim of the course of Legal Medicine is to provide students with knowledge of the essential elements of forensic pathology and of the rules necessary to carry out the health profession. It will be essential to acquire knowledge of the legal obligations established by current legislation and to develop the ability to recognize which acts and events have or may have legal relevance. These objectives will be achieved through frontal lectures and seminars.

The educational objectives are the knowledge of the basis of general, descriptive, analytical and investigative epidemiology and the application of epidemiological methods to the study of infectious and non-communicable diseases.

The main learning objective is the knowledge of the principal characteristics and determinants of the markets functioning. Particular focus will be devoted to the study of the healthcare sector. Students are expected to learn how an economic policy is designed and implemented with particular regard to the understanding of the relationships between health and economic growth. Market failures will be considered as the main rationale to understand the role of governmental authorities in order to reduce social costs deriving from externalities, moral hazard, adverse selection and, in general, asymmetric information. Finally, students will learn the use of economic analysis and cost-benefit approach to evaluate public policies with particular focus to healthcare and the evaluation of new health professional roles.

Student should acquire 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.

At the end of the module, the students must have the salient knowledge of the history of medicine with particular regard to the fundamental stages that have characterized the evolution in the diagnosis, prognosis and therapy of the main pathologies treated.

LEARNING OUTCOMES

Knowledge and understanding

- Attending the course, the student will:
- Understand what a company is and how it works;
- Know the fundamental concepts of organizational, strategic and financial thinking;
- Understand the dynamics of human resources and information technologies;
- Learn the basic tools for planning and control.
- Know the various fields of interest of forensic medicine.
- Describe the characteristics of the various types of injury and identify the possible cause.
- Know the criminal and ethical obligations to which the health professional is subject.
- Know the basis of the regulations in force regarding the professional liability of the health care professional.

- Know the basics of epidemiology and epidemiological methodology
- Have basic knowledge of demography and health statistics
- Describe the basics of the epidemiology of infectious and non-infectious diseases
- Understand the role and the principal tools of the economic policy
- Understand and describe the effect of externalities, asymmetric information, moral hazard and adverse selection
- Understand the principal determinants of economic growth with particular focus on the role of health policy
- Describe the main characteristics of welfare systems
- Describe the main elements of the economic analysis of public policies
- Apply the economic analysis approach to the evaluation of healthcare
- Know the meaning of Occupational Medicine and its temporal evolution
- Know the legislative aspects of occupational medicine
- Know the general and specific risks for workers and the methods for risk assessment
- Know basics of health surveillance.
- Know and be able to critically discuss the main stages of the evolution of the concept of health and disease.
- Know and be able to discuss the ethical principles that govern the relationship between health care worker and patient.
- Know the historical stages of the evolution of bioethical thought, as well as the main bioethical issues of professional interest.
- Know the main materials and the main sources of historical-medical and bioethical research.
- Knowing how to apply the principles acquired, through the knowledge of the historical stages of medicine, in carrying out one's professional activity.

Applying knowledge and understanding

Attending the course, the student will be able to:

- use what he/she learnt to deepen autonomously aspects useful for his/her profession in the future, if he/shewill deal with healthcare management.
- He/she will have the means to evaluate the information provided by epidemiology in order to have an evidence-based approach to the profession.
- Students will also be able to use the economic analysis in order to understand and assess interventions and policies aimed to reduce social costs and improve welfare and well being.

Communication skills

Attending the course, the student will know how to use the glossary got during the course in an effective manner.

Making judgements

At the end of the course, the student will achieve the ability to perform general assessments related to the topics covered.

COURSE SYLLABUS

BUSINESS ADMINISTRATION

- An Overview of Health Care Management
- Leadership
- Management and Motivation
- Organizational Behavior and Management Thinking
- Strategic Planning
- Healthcare Marketing
- Quality Improvement Basics
- Information Technology
- Financing Health Care and Health Insurance
- Managing Costs and Revenues
- Managing Health Care Professionals
- The Strategic Management of Human Resources
- Teamwork
- Addressing Health Disparities: Cultural Proficiency
- Ethics and Law
- Fraud and Abuse
- Special Topics and Emerging Issues in Health Care Management
- Health Care Management Case Studies and Guidelines

FORENSIC MEDICINE

- Fields of interest of legal medicine, methodology.
- FORENSIC PATHOLOGY : Principles of Thanatology, injuries from firearms, injuries from cutting weapons, injuries from blunt force, Asphysiology
- DEONTOLOGY: Referto, Professional secrecy, L.219/2017 and informed consent, code of ethics.
- PROFESSIONAL LIABILITY: Civil and criminal liability, Guidelines and Law 24/2017.

HYGIENE AND ENVIRONMENTAL PREVENTION

- Definition and purpose of epidemiology;
- notes on demography and health statistics;
- epidemiological methodology: rates, mortality and morbidity measures, prevalence and incidence, association measures;
- descriptive, analytical and investigative epidemiology, transversal, retrospective and prospective investigations;
- experimental and general epidemiology of infectious diseases and non-infectious diseases; global health and health determinants.

POLITICAL ECONOMY

- Markets, preferences, utility, demand and supply
- Pareto-efficiency and market failures: asymmetric information, externalities, moral hazard and adverse selection
- Agency
- Relationships between economic growth and health
- Welfare systems
- Demand and supply of healthcare
- The economic analysis of healthcare
- Cost effectiveness, cost utility and cost benefit analyses

OCCUPATIONAL MEDICINE

KEY CONCEPTS:

- Occupational Risk
- Occupational Disease
- Accident at work
- 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)

HISTORY OF MEDICINE

- History of medicine: prehistoric medicine, ancient Egypt, the classical world (Greece and Rome), the Middle Ages, the modern age, the contemporary age.



- History of the concept of health and disease
- Main historical and ethical aspects of the relationship between health professionals and patients
- Historical origins of bioethics
- Birth and structuring of professional ethics
- Books, objects, biological sources as tools of historical research applied

COURSE STRUCTURE

The course is structured in 110 hours of frontal teaching. The lectures will include theoretical lessons, seminars of case studies and sessions to evaluate the learning mechanism through test.

COURSE GRADE DETERMINATION

The exam will be in part done with practical exercitation, in part through written multiplechoice test, and in part through oral examination.

In the assessment, knowledge and understanding have a weight of 40%, applied knowledge and understanding of 40% and autonomy of judgment of 20%

The evaluation criteria are as follows:

Not suitable: Poor or lacking knowledge and understanding of the topics; limited capacity for analysis and synthesis, frequent generalizations of the requested contents; inability to use technical language.

18-20: Just sufficient knowledge and understanding of the topics, with obvious imperfections; just sufficient capacity for analysis, synthesis and autonomy of judgment; poor ability to use technical language.

21-23: Sufficient knowledge and understanding of the topics; sufficient ability to analyze and synthesize with the ability to reason with logic and coherence the required contents; sufficient ability to use technical language.

24-26: Fair knowledge and understanding of the topics; discrete ability to analyze and synthesize with the ability to rigorously argue the required contents; good ability to use technical language.

27-29: Good knowledge and understanding of the required contents; good ability to analyze and synthesize with the ability to rigorously argue the required contents; good usability

30-30L: Excellent level of knowledge and understanding of the required content with an excellent ability to analyze and synthesize with the ability to argue the required content in a rigorous, innovative and original way; excellent ability to use technical language

OPTIONAL ACTIVITIES

In addition to teaching activities, students will be given the opportunity to participate in Seminars, Research Internships, Department Internships, Monographic Courses and some additional papers will be provided by the professors.



READING MATERIALS

BUSINESS ADMINISTRATION

Sharon Bell Buchbinder, Nancy H Shanks (2017), Introduction to health care management, Jones & Bartlett Learning, Burlington, Massachusetts.

Readings provided by the teacher as well as all the material used during the lessons.

FORENSIC MEDICINE

Natale M. Di Luca, Tommaso Feola, Enrico Marinelli, Serafino Ricci. “Nuovo Compendio di Medicina Legale”

HYGIENE AND ENVIRONMENTAL PREVENTION

Bonita, Ruth, Beaglehole, Robert, Kjellström, Tord & World Health Organization. (2006). Basic epidemiology, 2nd ed. World Health Organization. <https://apps.who.int/iris/handle/10665/4354>

POLITICAL ECONOMY

Wondeling, Gruen, Black. Introduction to health economics. Understanding Public Health. 1st edition.

OCCUPATIONAL MEDICINE

“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

HISTORY OF MEDICINE

William Bynum. The History of Medicine. Oxford

STUDENT RECEPTION

The teacher will reply to all booking requests that will arrive via e-mail. Receive by appointment.

Prof. Fausto Ciccacci

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