

Degree Course in Physiotherapy

INTEGRATED COURSE: HEALTHCARE MANAGEMENT

CFU: 6

SSD: MED/42, SECS-P/02, MED/43

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MODULE: GENERAL AND APPLIED HYGIENE

CFU: 1

SSD: MED/42

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MODULE: APPLIED ECONOMICS

CFU: 4

SSD: SECS-P/02

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MODULE: FORENSIC MEDICINE

NUMERO DI CFU: 1

SSD: MED/43

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PREREQUISITES

GENERAL AND APPLIED HYGIENE

Although there is no preliminary requirement, basic concepts of microbiology and statistics.

APPLIED ECONOMICS

No prerequisites are needed in order to attend the course. Basic elements of microeconomics and macroeconomics will be provided during classes

FORENSIC MEDICINE

No prior exams passed are necessary to follow the course.

LEARNING OBJECTIVES

GENERAL AND APPLIED HYGIENE

Main objectives include knowledge of the general principles of hygiene and public health, and of health promotion. These objectives, in turn, include knowledge of the specific ways of transmission of infections; the epidemiological chain; the main healthcare associated infections; roles and characteristics of the epidemiological studies; data of the epidemiological studies on healthcare associated infections; the concepts of cleaning, sanitation, disinfection, antisepsis and sterilization; infection control measures in the community and healthcare settings especially in the imaging diagnostic facilities; the concepts of prophylaxis.

These objectives will be achieved through lectures/lessons, and with all the other tools capable of facilitating learning and the problem solving of the main aspects of the prevention and control of infection within applied hygiene.

APPLIED ECONOMICS

The main learning objective is the knowledge of the principal characteristics and determinants of the markets functionings. Particular focus will be devoted to the study of the healthcare sector. Students are expected to learn how an economic analysis can be used to design and implement healthcare services. Finally, students will learn the use of economic analysis and cost-benefit approach to evaluate public policies with particular focus to health technologies and the evaluation of new health professional roles.

FORENSIC MEDICINE

The objective of the Legal Medicine course is to provide basic knowledge in the field of forensic pathology and legal forensic medicine, with reference to civil, criminal and deontological aspects.

Particular attention will be paid to the acquisition of indispensable knowledge for the practice of the profession and the correct awareness of the ethical and legal framework in which the health professional operates, with reference to the obligations to which the professional himself is subject in the practice of the profession.

These objectives will be achieved through frontal lessons and seminars.

LEARNING OUTCOMES

GENERAL AND APPLIED HYGIENE

Knowledge and understanding:

At the end of this course, the student will need to know:

1. the main elements of applied hygiene, public health and health promotion;
2. how to describe the main ways of transmission of infections in the community and healthcare settings;
3. the elements of the epidemiological chain
4. the epidemiological methods applied to hygiene and prevention
5. epidemiology of healthcare associated infection
6. the prevention and control of healthcare associated infections
7. how to describe the principles of cleaning, sanitation, disinfection, antisepsis, decontamination and sterilization
8. the main concepts of prophylaxis.

Applying knowledge and understanding

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

- to use the knowledge gained for further study on the specific field of his/her professional activity.

Communication skills

At the end of this course, the student will be able

- to expressing in an appropriate manner with respect to the scientific terminology related to hygiene.

Making judgements

At the end of this course, the student will need to know

- how to make general assessments of the topics covered.

APPLIED ECONOMICS

knowledge and understanding

At the end of the course students will be able to:

- Understand the role and the principal tools of the economic analysis
- 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

Applying knowledge and understanding

At the end of the course students will 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

At the end of the course students will be able to:

- At the end of the course students are expected to use the economic terms appropriately in order to describe and appraise the results of an economic analysis.

making judgements

At the end of the course students will be able to:

- At the end of the course students are expected to make critical appraisal in order to assess the economic sustainability of public policies

FORENSIC MEDICINE

Knowledge and understanding

At the end of this course the student will have to:

- Know the various fields of application of forensic and legal medicine;
- Recognise the qualitative-quantitative characteristics of the various types of injuries observable in forensic pathology and be able to define possible causes;
- Know the criminal and deontological obligations to which the health professional is subject by virtue of his or her qualification;
- know the fundamentals of current legislation concerning the professional liability of health professionals in civil and criminal law.
- Know general topics in bioethics (legislation on informed consent, DAT and shared care planning).

Applying knowledge and understanding

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

- To use the acquired knowledge for the autonomous deepening of aspects related to the specific field to which the student will devote himself within the professional activity;

Communication skills

At the end of the course, the student should know :

- Use specific scientific and legal terminology in an appropriate manner.

Making judgements

At the end of the course, the student should know:

- carry out general assessments of the topics covered.

COURSE SYLLABUS

GENERAL AND APPLIED HYGIENE

Introduction: concepts of health, hygiene and public health.

General applied hygiene and epidemiological tools: health of different populations and its determinants, in the community and healthcare settings. Descriptive epidemiology in general applied hygiene: prevalence and incidence studies, the concept of risk/hazard, and cause-effect relationship.

Hygiene applied to the epidemiology of infectious diseases: general concepts, epidemiological models of infectious diseases. Concepts of epidemic and endemic. Sources of infection, entry and elimination routes of microorganisms, epidemiological chain and transmission of infections.

Principles of prevention and prophylaxis: primary, secondary and tertiary prevention.

Prevention of infectious diseases: concepts of environmental hygiene, disinfection, antisepsis, sterilization, biological risk in the healthcare settings and ways of prevention.

APPLIED ECONOMICS

- *Pareto-efficiency and market failures: asymmetric information, externalities, moral hazard and adverse selection*
- *The economic analysis of healthcare*
- *Cost effectiveness, cost utility and cost benefit analyses*

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.

COURSE STRUCTURE

GENERAL AND APPLIED HYGIENE

The course is structured in 10 hours of lessons, according with the academic schedule.

FORENSIC MEDICINE

The course is structured in 10 hours of frontal teaching, divided into lessons of 2 or 4 hours according to the academic calendar. Frontal teaching includes theoretical lessons and additional seminars on the topics covered.

COURSE GRADE DETERMINATION INTEGRATED COURSE

The assessment of students' preparation will take place, for the Hygiene and Economics subjects, through the administration of a written assignment possibly followed by an oral exam. The Hygiene written test will consist of 30 questions with multiple choice answers, one point will be assigned for each correct answer. The final score of the written test will be given by the sum of the partial scores assigned to each question answered correctly. To access the oral exam, the student must have scored at least a minimum of 18 points. During the oral exam, the examining commission will assess the student's ability to apply the knowledge and will ensure that the skills are adequate to support and solve problems of a hygienic-sanitary nature.

The verification of the preparation in the subject Economics will take place with a written exam consisting of 10 questions. One of the topics will consist in the solution of an economic analysis problem concerning the introduction of a health service. The written exam will be evaluated out of thirty. The exam will be deemed passed if a minimum score of 18/30 is achieved. The following will also be assessed: making judgements, communication skills and learning skills as indicated in the Dublin descriptors.

The exam of the course in Forensic Medicine will take place through an oral exam.

For the attribution of marks, the following criteria will be adopted:

Unsuitable: Poor or lacking knowledge and understanding of the topics; limited capacity for analysis and synthesis, frequent generalizations of the required contents; inability to use technical language.

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

21-23: Sufficient knowledge and understanding of topics; sufficient capacity for analysis and synthesis with the ability to logically and coherently argue the required contents; sufficient ability to use technical language.

24-26: Fair knowledge and understanding of the topics; discrete capacity for analysis and synthesis with the ability to rigorously argue the required contents; discrete ability to use technical language.

27-29: Good knowledge and understanding of required content; good capacity for analysis and synthesis with the ability to rigorously argue the required contents; good ability to use technical language.

30-30L: Excellent level of knowledge and understanding of the requested contents with an excellent capacity for analysis and synthesis with the ability to argue the requested contents in a rigorous, innovative and original way; Excellent ability to use technical language.

OPTIONAL ACTIVITIES

GENERAL AND APPLIED HYGIENE

Optional activities will include seminars.

APPLIED ECONOMICS

Alongside lectures students will be given the chance of participating to a project work regarding the critical reading and appraisal of a scientific article reporting results of an economic analysis.

READING MATERIAL

GENERAL AND APPLIED HYGIENE

1. Materiale fornito dal docente.
2. Bonita, Ruth, Beaglehole, Robert, Kjellström, Tord & World Health Organization. (2006). Basic epidemiology, 2nd ed. World Health Organization. <https://apps.who.int/iris/handle/10665/43541>

APPLIED ECONOMICS

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

Materiale aggiuntivo (slides Power point) fornito in classe

FORENSIC MEDICINE

Titolo: "Manuale di Medicina Legale"

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