



UNICAMILLUS

## BSc in Physiotherapy

**INTEGRADED COURSE TITLE:** HEALTHCARE MANAGEMENT  
**NUMBER OF ECTS CREDITS:** 6  
**SSD:** MED/42, SECS-P/02, MED/43  
**MODULE CONVENOR:** PROF. FAUSTO CICCACCI  
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MODULE: GENERAL AND APPLIED HYGIENE  
NUMBER OF ECTS CREDITS: 1  
SSD: MED/42  
PROFESSOR: [FAUSTO CICCACCI](#)

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MODULE: APPLIED ECONOMICS  
NUMBER OF ECTS CREDITS: 4  
SSD: SECS-P/02  
PROFESSOR: [MATTEO RUGGERI](#)

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MODULE: FORENSIC MEDICINE  
NUMBER OF ECTS CREDITS: 1  
SSD: MED/43  
PROFESSOR: [MARGHERITA PALLOCCI](#)

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### **PREREQUISITES**

Although there is no preliminary requirement. Basic concepts of microbiology and statistics are required while basic elements of microeconomics and macroeconomics will be provided during classes.

### **LEARNING OBJECTIVES**

At the end of the course, students will acquire the general principles of hygiene, public health, and health promotion. Among the objectives are the knowledge of the specific modes of infection transmission; the epidemiological chain; the main infections associated with healthcare; roles and types of epidemiological studies; data from epidemiological studies related to healthcare-associated infections; the concepts of cleaning, sanitation, disinfection, antisepsis, and sterilization; prevention measures in communities and in healthcare facilities, with particular reference to diagnostic imaging facilities; and the concepts of prophylaxis.

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

Other indispensable objectives include knowledge of the basic dynamics that regulate market functioning, with particular reference to the healthcare services sector. Students will need to acquire knowledge of the determinants underlying the design and implementation of health policies and the existing relationships between health and economics. Particular attention will be paid to the theme of cost-benefit analysis for the evaluation of



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public policies, with particular reference to health planning. The teaching of Legal Medicine aims to provide basic knowledge in the field of forensic pathology and legal medicine, with reference to civil, criminal, and ethical aspects.

Particular attention will be given to the acquisition of notions indispensable to the practice of the profession and the correct awareness of the ethical and legal framework in which the healthcare professional operates, with reference to the obligations that the professional himself/herself is subject to in the practice of the profession.

These objectives will be achieved through lectures and seminars.

## **LEARNING OUTCOMES**

### **Knowledge and Understanding**

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

- Understand the main elements of applied hygiene, public health, and health promotion;
- Describe the main modes of infection transmission in communities and healthcare facilities;
- Understand the elements of the epidemiological chain;
- Know and describe the epidemiological methodologies applied to hygiene;
- Describe infections associated with healthcare;
- Know the measures for preventing infections associated with healthcare;
- Describe the principles of sanitation, cleaning, disinfection, decontamination, antisepsis, and sterilization;
- Understand the concepts of prophylaxis;
- Comprehend the role and objectives of economic analysis;
- Know the basic elements of public policy evaluations;
- Apply such elements in the context of the economic evaluation of health services;
- Know the various application areas of legal medicine and jurisprudence;
- Recognize the qualitative and quantitative characteristics of various types of lesions observable in forensic pathology and be able to define their possible causes;
- Know the criminal and ethical obligations to which the healthcare professional is subject by virtue of their qualification;
- Understand the basics of current legislation regarding the professional responsibility of healthcare workers in civil and criminal areas;
- Know general topics in the field of bioethics (legislation on informed consent, Advanced Healthcare Directives (DAT), and shared care planning).

### **Applying knowledge and understanding**

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

- Use the knowledge acquired for the independent deepening of aspects related to the specific field to which the student will dedicate themselves in the context of professional activity;
- Use economic analysis to interpret the needs of the community and assess interventions aimed at improving well-being.

### **Communication skills**

At the end of the course, the student will know how to interpret the results of an economic analysis and use the specific scientific terminology related to hygiene and the legal field appropriately.



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## **Making judgements**

At the end of the course, the student will be able to make rough assessments related to the topics covered and carry out evaluations related to the economic sustainability of public programs, with particular reference to health policies.

## **COURSE SYLLABUS**

### **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.

### **Syllabus 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.

### **Syllabus 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, Asphyxiology. 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**

The course is structured into 60 hours of classroom teaching, divided into lessons scheduled according to the academic calendar. Attendance is mandatory for at least 75% of the total hours across all the integrated course modules.

## **COURSE GRADE DETERMINATION**

The students' preparation will be verified by administering a written test including questions from all three subjects, in a number proportional to the CFU of the individual modules.

## **OPTIONAL ACTIVITIES**

In addition to traditional teaching activities, students will be given the opportunity to participate in a project work, which will consist of the critical reading of an economic paper, as well as the opportunity to participate in seminars.



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## **READING MATERIAL**

### GENERAL AND APPLIED HYGIENE

1. Materials provided by the professor
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.

Additional materials (PowerPoint slides) provided in class.

### FORENSIC MEDICINE

Titolo: "Manuale di Medicina Legale"

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