

## Radiology diagnosing imaging and radiotherapy techniques

**INTEGRATED COURSE: ECONOMICS AND SOCIAL AND INTERNATIONAL POLITICS**

**SSD: MED/42, SECS-P/02/17, SECS-P/07**

**CFU: 9**

**COORDINATOR: PROF. [FEDERICO DE ANDREIS](#)**

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MODULE: General applied hygiene

SSD: MED/42

CFU: 3

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Professor: [Gualano Maria Rosaria](#) e-mail: [mariarosaria.galano@unicamillus.org](mailto:mariarosaria.galano@unicamillus.org)

MODULE: Political Economy

SSD: SECS-P/02

CFU: 4

Professor: [Federico de Andreis](#) e-mail: [federico.deandreis@unicamillus.org](mailto:federico.deandreis@unicamillus.org)

MODULE: Business administration

SSD: SECS-P/07

CFU 2

Professor: [Fabio Fiano](#) e-mail: [fabio.fiano@unicamillus.org](mailto:fabio.fiano@unicamillus.org)

### PREREQUISITES

*Although there is no prerequisite, basic concepts of microbiology, statistics and epidemiology are necessary with particular reference to the transmission of microorganisms in the community and in the care structures.*

### LEARNING OBJECTIVES

*Knowledge of the purposes of the health service and of the organizational models at international, national and local level are educational objectives.*

*Knowledge of the basic dynamics that regulate the functioning of the markets, with particular reference to the health services sector, are essential objectives. Students will have to acquire knowledge of the determinants underlying the design and implementation of economic policies and the relationships between health and economic growth. Particular attention will be paid to the study of market failures and state intervention to reduce social costs resulting from these*

imperfections. Finally, the topic of cost benefit analysis will be discussed for the evaluation of public policies with particular reference to health planning.

Introduce the student to the knowledge of business economics with reference to the public and private sector by inserting some thematic focus on health organizations

## **LEARNING OUTCOMES**

### **Knowledge and understanding**

At the end of the course, the student will be able to use the knowledge acquired within his profession, in order to place his work in the global framework of the health system. It will also have the means to recognize the specific role of its professional profile in the organization and planning of healthcare intervention. Know the main elements of applied hygiene, public health and health promotion; describe the main methods of transmission of infections in the community and in the care facilities, know the elements of the epidemiological chain, know and describe the epidemiological methodologies applied to hygiene, describe the infections associated with assistance, know the prevention measures of infections associated with the assistance, describe the principles of sanitization, cleaning, disinfection, decontamination, antiseptics, sterilization, know the concepts of prophylaxis. Understand the role and objectives of economic policy. Describe the effects of information asymmetries, externalities and limited rationality. Know the main determinants of economic growth with particular reference to the role played by health protection policies. Know the characteristics of the main health systems. Know the basic elements of public policy assessments. Apply these elements to the context of the economic evaluation of health services. Know the business economy as a science that studies the business phenomenon and its multiple manifestations in civil society. Know the business circuits, operations, values and changes in value deriving from exchanges, at market and non-market conditions, between the company and the outside world. Know and know how to basically interpret the documents making up the financial statements of companies. Know the basic tools useful for management control (classifications and cost configurations).

## **Applying knowledge and understanding**

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

- *Use the economic analysis to understand the international reality and the problems of the economic sector, evaluating the interventions aimed at improving the well-being of an economic and social nature.*

## **Communication skills**

*At the end of the course, the student will have to know how to use the acquired terminology with competence and appropriateness. Use specific scientific terminology appropriately and interpret results of an economic analysis*

## **Making judgements**

*At the end of the course, the student must be able to make general assessments on the topics covered. Carry out assessments relating to the economic sustainability of public programs with particular reference to health policies. Provide basic interpretations of a company's trend and economic health status.*

## **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.*

*Health organization and planning:*

- *principles and purposes of the health organization;*
- *models of organization of the health service;*

- the hospital and non-hospital organization;
- health planning at regional, national and supranational level.

General and applied hygiene:

- the physical environment: air, water, soil, climate, ionizing radiation;
- the biological environment: microorganisms, food;
- the social environment: urbanization, housing;

Epidemiology:

- definition and purpose of epidemiology;
- experimental and general epidemiology of non-infectious diseases;
- overall health and health determinants.

## **POLITICAL ECONOMY MODULE**

- The markets for goods, preferences, utility, supply and demand
- Pareto efficiency and market failures: information asymmetries, externalities, moral hazard, adverse selection
- Agency report
- Relations between economy, development and health
- Welfare systems and health systems
- Demand and supply of health services
- The economic analysis of health programs
- Cost effectiveness, utility cost and benefit cost assessments
- Historical approach to international economic policy
- The market
- Supply and demand
- Development and underdevelopment
- Consumer preferences
- Economic analysis of risk management in healthcare systems.

## **BUSINESS ADMINISTRATION MODULE**

Brief index of topics:

- \_ 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*
- \_ *What is a company and its distinctive characteristics.*
- \_ *The classification of the companies.*
- \_ *Company circuits.*
- \_ *The existing legal structures for the exercise of the company activity.*
- \_ *The budget and its basic elements: a first interpretative reading.*
- \_ *Cost classifications and configurations.*

## **COURSE STRUCTURE**

The course of SOCIAL AND INTERNATIONAL ECONOMY AND POLITICS is organized in lectures (90 hours) and theoretical-practical exercises. The lessons are held by projecting illustrative images (Power-Point) and through the use of paper material provided by the teacher.

## **COURSE GRADE DETERMINATION**

The exam is unique for the entire integrated course, it is not possible to take exam tests for the individual modules. 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, 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. During the teaching course a test aimed to verify possible deficit in understanding will be administered. 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. 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 synthetic capabilities. Good proper personal judgment.

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

### **OPTIONAL ACTIVITIES**

*In addition to the theoretical teaching activity, some topics and case studies will be addressed with monographic insights.*

### **READING MATERIALS**

#### **GENERAL AND APPLIED HYGIENE**

*Readings made available to the teacher and all the material used during the lessons.*

#### **POLITICAL ECONOMY MODULE**

*Readings made available to the teacher and all the material used during the lessons.*

- Wondeling, Gruen, Black. Introduction to health economics. Understanding Public Health. 1st edition.
- Randy Charles Epping, A Begginers' Guide to the World of Economy, Third Edition, New York : Vintage, 2001)

#### **BUSINESS ADMINISTRATION MODULE**

*Readings made available to the teacher and all the material used during the lessons.*