

#### Radiology diagnosting imaging and radiotherapy techniques

INTEGRATED COURSE: ECONOMICS AND SOCIAL AND INTERNATIONAL POLITICS SSD: MED/42, SECS-P/02/17, SECS-P/07 CFU: 9 DIRECTOR: PROF. FEDERICO DE ANDREIS E-MAIL: <u>FEDERICO.DEANDREIS@UNICAMILLUS.ORG</u>

MODULE: General applied hygiene SSD: MED/42 CFU: 3 Professor: Fausto Ciccacci e-mail:fausto.ciccacci@unicamillus.org Nicola Petrosillo e-mail: nicola.petrosillo@unicamillus.org Professor: MODULE: Political Economy SSD: SECS-P/02 CFU: 4 Professor: e-mail: federico.deandreis@unicamillus.org Federico de Andreis MODULE: Business administration SSD: SECS-P/07 CFU 2 Professor: Federico de Andreis e-mail: federico.deandreis@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, antisepsis, 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, valuesand 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 APPLIED HYGIENE MODULE

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.
- Introduction to the course: concept of health, hygiene and public health

Hygiene and epidemiological tools: the health of the population and its determinants, in the community and care sector. Descriptive epidemiological measures of common use in applied hygiene: prevalence and incidence studies, the concept of risk and cause-effect relationship.



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

Prevention and prophylaxis principles: primary, secondary and tertiary prevention.

Prevention of infectious diseases, concepts of environmental hygiene, disinfection, antisepsis, sterilization, biological risk in the care sector and its prevention

# POLITICAL ECONOMY MODULE

- The markets for goods, preferences, utility, supply and demand

- Pareto efficiency and market failures: information asymmetries, externalities, moral harzard, 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

- Healthcare management
- Leadership
- Management and motivation
- Organizational Behaviour
- Strategic planning
- Healthcare marketing and marketing
- Quality
- Communication and information
- Financing health care and health insurance
- Cost and revenue management
- Management of healthcare professionals
- Strategic human resource management
- Teamwork
- Addressing health care disparities: cultural competency
- Ethics and Law
- Risk management in healthcare organizations



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 module 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

## APPLIED HYGIENE MODULE

The verification of the achievement of the training objectives will be performed with a written exam, followed by an oral test. The written test will consist of 15 questions with multiple choice answers. For each correct answer 2 points will be assigned and the final mark will be given by the sum of the scores of the single questions. To access the oral exam, the student must have obtained a written test mark of at least 14 points.

During the oral exam, the Commission will assess the student's ability to apply the knowledge acquired, the communication skills developed in the field of organization and health planning and the autonomy of basic judgment on the topics covered as indicated in the Dublin descriptors.

## POLITICAL ECONOMY MODULE

The preparation of the students will be verified by means of an oral exam (or written – depending on the number of candidates), about the course topics covered. The exam will be assessed thirtieth. The exam will be considered passed if a minimum score of 18/30 is reached.

#### **BUSINESS ADMINISTRATION**

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## **OPTIONAL ACTIVITIES**

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

## **READING MATERIALS**

#### **APPLIED HYGIENE MODULE**

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

#### POLITICAL ECONOMY MODULE

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

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