

**1. language**

Italian.

**2. course contents**

Coordinator: Prof. IENOPOLI CHIARA

Year Course: 1°

Semester: 2

UFC: 8

Modules and lecturers:

- EPIDEMIOLOGIA, IGIENE E PROBLEMI PRIORITARI DI SALUTE (ITO025) - 2 cfu - ssd MED/42

Prof. Marco Colotto

- INFERMIERISTICA PREVENTIVA E SICUREZZA (ITO027) - 2 cfu - ssd MED/45

Prof. Silvia Bagnato

- METODOLOGIA DELLA RICERCA (ITO029) - 1 cfu - ssd MED/45

Prof. Chiara Ienopoli

- MICROBIOLOGIA CLINICA (ITO028) - 1 cfu - ssd MED/07

Prof. Laura Bellizia

- STATISTICA SANITARIA (ITO026) - 2 cfu - ssd MED/01

Prof. Michela Peluso

**3. BIBLIOGRAPHY**

**Epidemiologia, igiene e problemi prioritari di salute**

Ricciardi G. Igiene. Igiene. Medicina preventiva. Sanità pubblica di Walter Ricciardi, Stefania Boccia. Idelson Gnocci. Febbraio 2021

**Statistica sanitaria**

Swinscow TDV, Campbell MJ. Le basi della statistica per Scienze bio-mediche. Torino: Edizioni Minerva Medica, 2004.

**Microbiologia clinica**

Cevenini R, Sambri V. Microbiologia e microbiologia clinica. Padova: Ed Piccin, 2004.  
E. Lanciotti . Elementi di Microbiologia clinica. Milano: Edizioni Ambrosiana, quarta edizione 2017.

**Infermieristica preventiva e sicurezza**

Marchiaro G, Farina EC. infezioni ospedaliere. Torino: Centro Scientifico Editore, 2007.  
Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.  
In: <https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html> (ultimo accesso 08/05/2019)  
INF-OSS. Compendio delle principali misure per la prevenzione e il controllo delle infezioni correlate all'assistenza. In: [http://www.salute.gov.it/imgs/C\\_17\\_pagineAree\\_4621\\_listaFile\\_itemName\\_0\\_file.pdf](http://www.salute.gov.it/imgs/C_17_pagineAree_4621_listaFile_itemName_0_file.pdf) (ultimo accesso 08/05/2019)

**Metodologia della ricerca**

Chiari P, Mosci D, Naldi E. Evidence based clinical practice: la pratica clinico assistenziale basata su prove di efficacia. Milano: Mc Graw Hill, 2011.

Competenze core per l'EVIDENCE-BASED PRACTICE.  
In: [https://www.gimbe.org/pubblicazioni/gimbe/Handbook\\_Competenze\\_core\\_per\\_l\\_Evidence-based\\_Practice.pdf](https://www.gimbe.org/pubblicazioni/gimbe/Handbook_Competenze_core_per_l_Evidence-based_Practice.pdf) (ultimo accesso 16/03/2020)

Come documentare l'evidenza in sanità pubblica. La guida Dors per la sintesi delle evidenze scientifiche.  
In: [https://www.dors.it/documentazione/testo/201904/Documentare\\_evidenze2019.pdf](https://www.dors.it/documentazione/testo/201904/Documentare_evidenze2019.pdf) (ultimo accesso 16/03/2020)

#### 4. LEARNING OBJECTIVES

**Knowledge and understanding (Dublin 1) – At the end of the course the student will be able to attribute appropriate meanings to the teaching contents related to:**

- %2) Concepts of Hygiene and prevention of infectious and chronic-degenerative diseases,
- %2) Constitutive elements of the health needs of a population and public health approach,
- %2) Basic elements of descriptive and inferential statistics, probability theory and sampling techniques;
- %2) Fundamental elements of microbiology, mycology, parasitology;
- %2) models of transmission of infectious/parasitic diseases;
- %2) use of evidence-based information in clinical care practice: guidelines, protocols, procedures.

**Applied knowledge and understanding (Dublin 2) - At the end of the course the student will be able, on the basis of appropriate knowledge, to interpret data and information, connected to problematic situations, related to:**

- a) characteristics of epidemiological studies, measures of disease occurrence and risk measures;
- b) how to apply measures to prevent healthcare-associated infections;
- c) bibliographic research on scientific databases;
- d) critical reading of scientific research articles.

**Making judgments (Dublin 3) - At the end of the course the student will be able to analyze and evaluate, following an appropriate reasoning, problematic topics and situations with particular reference to:**

- a) assessment of the infectious risk;
- b) interpretation and application of the results of scientific research in the professional field (epidemiological, statistical and "best practice" measures).

**Communication skills (Dublin 4) – At the end of the course the student will be able to answer specific questions and discuss emblematic topics:**

- a) using the correct terminology and syntax both in written and oral form;
- b) expressing himself in a clear, understandable way adapted to the type of interlocutor and his receptive and interpretative abilities.

**Learning skills (Dublin 5) - At the end of the course the student will be able to self-evaluate their learning skills in relation to the teaching topics:**

- a) identifying, on the basis of his intellectual performance and the feedback provided by the teachers, any need for cognitive or methodological compensation / integration;
- b) autonomously using the information sources available to address these needs.

#### 5. prerequisites

In order to understand the teaching contents, the student must possess logical-mathematical knowledge and skills. Elements of biology.

#### 6. TEACHING METHODS

The teaching of the course, in relation to the educational objectives combined according to the Dublin descriptors, is divided into:

- a) interactive frontal lessons through the use of slide shows, plenary discussion of clinical cases, exercises with scenarios in small groups and practical exercises; group and individual work on mandates aimed at statistical calculations (and their interpretation) and bibliographic research. Group work is conducted interactively by the teachers.
- b) Blended teaching through the integrated use of institutional platforms.

#### 7. OTHER INFORMATIONS

The teachers are available for information on teaching and clarifications on lessons by appointment.

## 8. METHODS FOR VERIFYING LEARNING AND FOR EVALUATION

There is a final written exam with multiple choice questions and/or open questions and subsequent oral exam. Students with an evaluation equal to or higher than 18/30 for each single module will be admitted to the oral exam. Students with one or two minor failings (16 or 17/30) may be admitted to the oral exam sub condicione (passing the exam is conditioned by the positive outcome of the oral exam). Students with one or more failing marks (15/30) will not be admitted to the oral exam. The final evaluation of the exam will be expressed out of thirty; the mark results from the weighted average between the written and oral exams. Passing the exam requires a minimum grade of 18/30. The student will be able to obtain the maximum grade of 30/30 if the weighted average is at least 29.5/30. The exam can be conducted in face-to-face mode, in blended e-learning mode.

In relation to the "research methodology" module, the students will produce an individual work in progress of bibliographic research reporting which will be evaluated in an integrated and complementary way to the written test (a positive evaluation of this work is evaluated with "+3 points" only for students who have had an evaluation of at least 18/30 in the written test).

## 9. program

### Epidemiology, Hygiene and PPS

Concepts of: Hygiene; Epidemiology; Preventive Medicine; Public health; Health promotion and education. Epidemiology: occurrence measures, risk measures, epidemiological study models (strengths and limitations). Demography, demographic transition, epidemiological transition. The determinants of health. The natural history of the disease, epidemiology, etiology, risk factors and multifactoriality. Primary secondary tertiary disease prevention. Prophylaxis of infectious diseases: surveillance systems, notification, vaccinations. Healthcare associated infections. Antimicrobial-resistance. Chronic degenerative diseases: epidemiology, prevention, follow-up; the approach for diagnostic-therapeutic pathways. Fundamentals of healthcare organization: healthcare system models; the Italian health system: founding principles and organization; new models of healthcare organization in response to demographic changes.

### Preventive Nursing and Safety

Elements relating to the methods of transmission of infectious / parasitic diseases; general principles and methods of hand hygiene; personal protective equipment, universal and standard precautions and additional measures to prevent infection.

The transport of biological material, classification of medical waste and its collection and disposal methods; the general principles and operating methods of cleaning, environmental sanitation; the main active ingredients of disinfectant and antiseptic solutions, how to store them for use.

General principles and methods of sterilization of medical devices and other material useful for assistance; nursing skills in the prevention and control of major healthcare-associated infections; the organization of infection control; the main methods of isolation, organizational and welfare implications in the adoption of additional contact, droplets, airborne precautions; containment and prevention measures for Covid19 infections.

### Health statistics

Descriptive statistics and applications: characters, data, modes, values, mutables, variables. Definitions and applications.

Qualitative and quantitative dimensions. Univariate (representations, ordering, indexes of position and dispersion) and bivariate (representation, construction of tables, bivariate analysis, construction and use of the 2 test) distributions. Introduction to statistical inference: basics of probability calculation and the main sampling techniques. Elements of statistical inference: distributions and population samples. Hypothesis test. Reading and interpretation of the results.

### Clinical microbiology

Prokaryotic microorganisms: bacterial cell, bacterial genetics, bacterial pathogenicity. Special bacteriology: main bacteria of medical interest. Eukaryotic microorganisms: fungi, general characteristics and human pathogens, protozoa, general characteristics and human pathogens. Viruses: viral structure and multiplication, main viruses of medical interest. The study includes: analysis of the bacterial ecosystem present in physiological conditions in the various districts of the human body; description of the clinical forms;

description of pathogens; principles of diagnostics of infectious diseases; methods of collection, transport, storage of materials used for the isolation of microorganisms.

## Research methodology

Clinical query aimed at bibliographic research and research of references on scientific databases; methodological structure of a scientific article. Reading and critical analysis of two scientific articles.

