UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

History and Evolution in Medicine

2627-2-H4103D158

Aims

The course History and Evolution in Medicine aims to provide students with an integrated understanding of the evolution of medicine, considered both as a historical, social and epistemological field, and as a biological discipline grounded in the evolutionary processes that have shaped human genetic variability and the relationship between organisms, environment and disease. The course also aims to develop scientific English skills required to understand, analyse and discuss biomedical texts and topics in an international context.

At the end of the course, students are expected to be able to:

1. Knowledge and understanding
Understand the main stages in the historical evolution of medicine, healthcare practices, institutions, and concepts of health, disease and treatment; know the basic principles of population genetics, molecular evolution, evolutionary medicine and viral evolution; understand scientific texts, dialogues and articles in English on biomedical topics.
2. Applying knowledge and understanding
Apply the acquired knowledge to critically interpret the role of medicine in the past and present, to understand the relevance of evolutionary processes in genetic variability, human disease and infectious diseases, and to use English appropriately when reading, writing and discussing scientific content.
3. Making judgements
Develop critical thinking in the evaluation of the historical, social, cultural and biological changes that have influenced medicine, the doctor-patient relationship, healthcare organization, the evolution of human populations and the interpretation of disease.
4. Communication skills
Present the main contents of the course clearly, coherently and appropriately, using suitable scientific language in Italian and English, and demonstrating the ability to discuss biomedical, historical and evolutionary topics.
5. Learning skills
Autonomously connect historical, evolutionary and scientific-language contents with contemporary medical education, developing professional awareness, lifelong learning skills and a critical attitude towards scientific sources.

Contents

The course explores the evolution of medicine through an interdisciplinary approach integrating historical, biological-evolutionary and linguistic perspectives. It examines the development of medical thought, clinical practice and healthcare systems within their historical context, the principles of evolutionary biology applied to human genetics, evolutionary medicine and infectious diseases, and the language skills required to understand, interpret and communicate biomedical information in English. Particular emphasis is placed on critical thinking, the interpretation of scientific literature and the understanding of the role of medicine in contemporary society.

Detailed program

The integrated course consists of the following modules:

- History of Medicine
- Evolutionary Genetics
- Scientific English

Each module addresses specific aspects of the evolution of medicine from historical, biological-evolutionary and scientific-language perspectives, contributing to the overall learning objectives of the integrated course.

For the detailed programme students should refer to the respective syllabi of the individual course units.

Prerequisites

As specified in the Degree Programme Regulations.

Teaching form

The course consists of three modules employing different teaching methods.

The *History of Medicine* and *Evolutionary Genetics* modules are delivered through face-to-face lectures, complemented by class discussions designed to promote critical reflection and the integration of historical, biological-evolutionary and medical perspectives. All teaching activities are delivered on campus in lecture format. The language of instruction is Italian.

The *Scientific English* module is based on independent learning through a dedicated online Medical and Scientific English platform, according to the procedures and requirements described in the corresponding module syllabus.

For detailed information on the teaching methods of each module, students should refer to the respective module syllabi.

Textbook and teaching resource

Teaching materials are module-specific and include textbooks, teaching materials provided by the lecturers, lecture slides, scientific articles and online learning resources.

For detailed information on the teaching materials required for each module, students should refer to the respective module syllabi.

Semester

Second year, first semester.

Assessment method

Assessment is designed to verify the achievement of the intended learning outcomes of the integrated course, in accordance with the Dublin Descriptors, by evaluating students' knowledge and understanding, ability to apply knowledge, independent judgement and communication skills.

Admission to the integrated examination is conditional upon passing the *Scientific English* module. This requirement is fulfilled by successfully completing an online test consisting of several sections assessing listening comprehension, reading comprehension, grammar and biomedical vocabulary. Assessment is expressed on a pass/fail basis. A minimum score of 6/10 is required to obtain a pass.

After successfully completing the Scientific English module, students are admitted to the integrated examination covering the *History of Medicine* and *Evolutionary Genetics* modules.

The integrated examination consists of a written test including:

- multiple-choice questions designed to assess knowledge and understanding of the core disciplinary contents;
- open-ended questions designed to evaluate the ability to apply knowledge, establish interdisciplinary connections, develop critical reasoning and communicate using appropriate scientific language.

The final mark is expressed on a 30-point scale and takes into account the completeness and accuracy of the acquired knowledge, analytical and critical skills, independent judgement, quality of argumentation and appropriate use of scientific terminology.

Office hours

Lecturers are available by appointment, to be arranged via e-mail.

The course coordinator can be contacted at: michele.riva@unimib.it.

For information on the office hours and contact arrangements of the lecturers responsible for the individual modules, please refer to the respective module syllabi.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY | REDUCED INEQUALITIES