

UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Optometry and Low Vision

2425-1-F1702Q008

Aims

General aims of the module

To develop a student's theoretical understanding of aging of eye and visual system, and the conditions of visual impairments. To extend the range of competencies of the student in geriatric optometry and low vision. To improve clinical decision-making in selecting the optical and non-optical aids for low vision people. To allow students to interact with other professionals in management of advanced clinical cases in geriatric optometry and low vision.

Specific learning outcomes (LO)

By the end of the module, a successful student will gain:

- -LO1: theoretical knowledge about the aging of the human body, eye, and visual system
- -LO2: practical skills to perform a comprehensive visual assessment and refractive techniques in geriatric people
- -LO3: theoretical knowledge about the principle of low vision correction by optical and non-optical aids and practical skills to select for the individual needs these kinds of solutions

Contents

The module will cover principles of geriatric optometry and low vision

Detailed program

- 1. Principles of aging of the human body and geriatrics. Patient in advanced age: psychological, physiological (general health features, illness, and disabilities), and social profile. Basics of age-related physiological and pathological changes in the visual system.
- 2. Age-related optical changes in the eye and the visual system.

- 3. Accommodation/pupil mechanisms: effects of ageing
- 4. Presbyopia: demographics, theories, and management in the clinical practice
- 5. Optometric techniques to assess the quality of vision across the elderly, from psychophysics to electrophysiology
- 6. Visual impairment and Low vision: definitions, epidemiology, and regulations
- 7. Evaluation of visual impairment in elderly people and clinical cases
- 8. Optical and digital (non-optical) low vision aids (Basic optics of magnifiers and prescription rationale, aids for peripheral visual field loss)
- 9. Lighting in low vision

Prerequisites

See curricular prerequisites for the admission Master's Degree Program

Teaching form

Learning objectives will be pursued through different teaching methods:

- Frontal Lecture (7 hours on topic n.1)
- Online non-interactive asynchronous lectures (11 hours on all topics: 2-9)
- Online interactive synchronous lectures (10 hours on topics n. 2, 3, 5 and 7)
- In person Labs/clinics's topics (12 hours on topics n. 3, 4, 5, 7 and 8)
- In person Online tutoring
- Student-managed learning

Textbook and teaching resource

Lecturers' handouts
Slides of the lectures
Scientific papers suggested by the lecturers

Semester

Second Semester

Assessment method

Group work, Final summative assessment (Written [MCQs + 1 open question] and Oral exam)

Office hours

Appointment needed

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION