



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Optometric Investigative Techniques - I

2425-1-F1702Q001

Aims

General aims of the module

To refine the student's theoretical understanding of clinical refraction, binocular vision assessment, visual functionality and primary vision care. To improve clinical decision making in providing evidence based optometric intervention from optical devices to visual training. To allow students to interact with other professionals in the field of vision sciences and being capable to describe a clinical case in scientific contexts.

Specific learning outcomes (LO)

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

- LO1: theoretical knowledge about the main objective and subjective techniques of ocular refraction and the relationship between ocular refraction and binocular vision
- LO2: practical skills to perform objective and subjective refractive techniques as well as binocular vision assessment.
- LO3: practical skills to perform a comprehensive visual assessment and determine the effect of optical correction on visual functioning
- LO4: theoretical knowledge about the principle of primary vision care and the ability to perform a basic assessment of primary vision care
- LO5: knowledge on how to write an optometric case report according the international standard

Contents

The module will cover principles of ocular refraction and optical correction, visual function assessment, and primary vision care.

Detailed program

1. Diagnostic drugs
2. Cyclopegic vs non cyclopegic refraction
3. Objective Refraction: Retinoscopy, autorefractometry, wavefront refraction
4. Subjective Refraction
5. Binocularity, accommodation and refraction
6. Visual Psychophysics: visual acuity, contrast sensitivity, color vision assessment
7. Anterior chamber angle assessment
8. Tonometry
9. General Fundus Examination (Direct/Indirect Ophthalmoscopy); Changes in the Ocular Fundus Resulting from Refractive Error
10. The pupil and pupillary reflexes: from neurophysiology to clinical appraisal
11. Perimetry in clinical practice
12. Optometric Case Studies. How to write a clinical case

Prerequisites

See curricular prerequisites for the admission Master's Degree Program

Teaching form

Learning objectives will be pursued through different teaching methods:

- Online non-interactive asynchronous lectures (14 hours on all topics: 1-14)
- Online interactive synchronous lectures (7 hours on topics n. 3, 4, 5 and 9)
- In person Labs/clinics's topics (12 hours on topics n. 3, 4, 5, 6, 7, 8, 9, 11, 12)
- Online tutoring
- Student-managed learning

Textbook and teaching resource

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

Semester

First Semester

Assessment method

Group work, Short Essay, and Final summative assessment: Written (MCQs + 1 open question) and oral exam.

Office hours

By appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION
