

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

# SYLLABUS DEL CORSO

# **Ragionamento Diagnostico**

2122-2-F5104P017-F5104P018M

## Learning area

Diagnostic thinking

# Learning objectives

Knowledge and understanding

- Logical and statistical bases of diagnostic reasoning
- psychological biases that affect diagnostic reasoning

Ability to apply knowledge and understanding

• Application of the logical principles of diagnosis to neuropsychological testing

### Contents

Diagnostic reasoning according to the Evidence Based Medicine (AEBM) approach: elements of decision analysis, logical and bayesian bases of diagnostic reasoning, main cognitive biases that affect diagnostic reasoning, applications in neuropsychological testing.

**Detailed program** 

- Uncertainty and probability in the health professions (Chap 2 Hunink)
- Coping with uncertainty in decisions: decision trees (Chap 3 Hunink)
- Coping with uncertainty in diagnoses: Sensitivity and specificity of diagnostic tests (Chap 5 Hunink)
- Scientific interpretation of diagnostic testing (Chap 5 Hunink), with application to a case of neuropsychological testing (teacher's materials)
- Cognitive in biases affecting clinical decisions and diagnostic reasoning (Chap 5).

#### **Prerequisites**

- Good numeracy skills, good comprehension skills of written english.
- Basic knowledge of probability calculus
- Basic knowledge of the fundamentals of neuropsychological testing and diagnosis.

### **Teaching methods**

- Synchronous lectures wit Wooclap engagement, hands-on training to the building and analysis of computerized decision trees, homework
- Teaching activity will be in presence, unless there are specific reccommendations due the continuation of the COVID-19 emergency

### **Assessment methods**

Oral test

### **Textbooks and Reading Materials**

Hunink M, Glasziou P, Siegel J, et al. Decision making in health and medicine. Integrating evidence and values. Cambridge: Cambridge University Press, 2001