

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

### COURSE SYLLABUS

## Mitral Valve Surgery: Towards Minimally Invasive Approaches

2526-5-H4101D403

#### **Aims**

The course aims to provide the fundamental anatomical and physio-pathological knowledge regarding the most common mitral valve diseases. The student will learn how to recognize mitral valve patients in need of a surgical treatment and will learn the basic details of the key techniques to repair or replace the mitral valve. Special attention will be dedicated to minimally invasive appraoches and the future evolution of surgical options.

#### Contents

The course will cover the following topics: functional anatomy of the mitral apparatus, patological evolution and classification of main mitral valve diseases, surgical indications, surgical techniques.

### **Detailed program**

- 1. Anatomy of the mitral valve apparatus: annulus, leaflets, chordae, papillary muscle, left ventricle
- 2. Physiology of the mitral valve apparatus and main patterns of pthological changes
- 3. Main mitral valve diseases: organic mitral regurgitation, functional mitral regurgitation, mitral stenosis, mixed diseases
- 4. Surgical indications for mitral repair and replacement
- 5. Surgical techniques for mitral repair: from theory to practice (incl. videos)
- 6. Minimally invasive appraoches and future developments

### **Prerequisites**

Basic knowledge of cardiac anatomy and physiology.

### **Teaching form**

Lectures, projection of surgical videos, discussion of clinical cases. On request, assistance in a live cardiac surgery. Teaching language: ITALIAN

### Textbook and teaching resource

Slides and videos.

A. Carpentier. Reconstructive Valve Surgery. From Valve Analysis to Valve Reconstruction. Saunders.

### Semester

5th year

#### **Assessment method**

Discussion of a clinical case.

### Office hours

Appointment by e-mail contact

### **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING