



## INGÉNIERIE MÉCANIQUE

## MECHANICAL ENGINEERING

Lecturers: Olivier DESSOMBZ, Jean-Jacques SINOU

| Lecturers : 4.0 | TC : 4.0 | PW : 0.0 | Autonomy : 16.0 | Study : 24.0 | Project : 0.0 | Language : FR

### Objectives

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Study the design of mechanical systems and structures present in various fields of application (engineering civil, aeronautical, automotive...) by linking technological, static and dynamic aspects.

**Keywords :** Design, methodology and modelling

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### Programme

Course / TD program :  
- Introduction to the dimensioning issue.  
- Dynamic sizing.

Synthesis Studies:  
- Two studies make it possible to show the existing links between the different aspects of the dimensioning of a system or a mechanical structure.  
- Examples of themes addressed: sizing of a bridge, dimensioning of a lifting clamp, sizing of an automotive clutch.

### Learning outcomes

### Independent study

**Objectifs :** Work on BE, formatting of results and writing.

**Méthodes :** Study of the systems offered in BE, preparation of evaluation presentations.

### Core texts

Georges Spinnler, *CONCEPTION DES MACHINES, TOMES 1, 2 & 3*, Presses polytechniques et universitaires romandes, 1997  
Daniel Gay & Jacques Gambelin *DIMENSIONNEMENT DES STRUCTURES, UNE INTRODUCTION*, Hermès science publications, 1999  
Claude Chèze *DIMENSIONNEMENT DES STRUCTURES*, Ellipses, 2012

### Assessment

Score = 50% knowledge + 50% know-how  
Knowledge score = 100% terminal exam  
Know-how score = 100% continuous assessment