



MECHANICAL DESIGN

Lecturers:Olivier DESSOMBZ, Francesco FROIIO| Lecturers : 4.0 | TC : 4.0 | PW : 0.0 | Autonomy : 2.0 | Study : 10.0 | Project : 0.0 | Language : FR

Objectives

Give more advanced notions on the mechanics of solids and structures, having a direct link with applications.

Keywords : Dimensioning, truss, static, dynamic

Programme	 Course 1 and TD 1: Calculation of isostatic and hyperstatic lattices. Buckling. Course 2 and TD 2: Small movements in vibration. Clean modes, free response and forced response. Design office 1 and 2: Calculation of the coverage of a gymnasium (static sizing and dynamic analysis).
Learning outcomes	 Apply the concepts of structural statics to the design of a truss Apply the concepts of structural dynamics to the design of a truss. Use digital calculation platforms (Matlab, Scilab) for the analysis of structures. Report on the static and dynamic analysis of a structure.
Independent study	Objectifs : Finalize the work of the design office.
	Méhodes : Group work: case study and report writing .
Core texts	
Assessment	Score = 100% know-how Know-how score = 100% continuous assessment.