

# Materials, vibrations and advanced mechanical modeling



ECTS  
7 crédits



Hourly volume  
100h

## Introducing

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### Objectives

At the end of this module, the student will have understood and be able to explain how works a pre-stressed (or preloaded) mechanical system, basis of fracture mechanics and computations of vibrations and transient dynamics

The student will be able to identify mechanical systems that are preloaded, discuss with a specialist of fracture mechanics and carry out a simulation of vibrations and transient dynamics.

### Necessary prerequisites

Basis on mechanical design, materials and vibrations

## Practical info

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### Location(s)

 Toulouse