# *ACTIVITÉS PRATIQUES DE GÉNIE MÉCANIQUE*

## TECHNOLOGY ANALYSIS & PRODUCT DEVELOPMENT

**Lecturers:** Bertrand HOUX, Hélène MAGOARIEC, Olivier DESSOMBZ

| Lecturers : 0.0 | TC : 0.0 | PW : 20.0 | Autonomy : 0.0 | Study : 10.0 | Project : 0.0 | Language : FR

## Objectives

The objective of the training action is to put into practice (know-how) the skills of the GM Teaching Unit. The objective of the technological product development project is to implement all the stages of design, manufacture and control of the geometric conformity of the components of a mechanical system. The other practicals aim to analyze the architecture of a real mechanical system, to carry out a performance diagnosis, according to the external stresses and the technological elements used to make the connections between solids or to put the system into action.

Keywords : Architecture of a mechanical system; Building elements; Design; Manufacturing; Metrology; Elastic sizing; Performance diagnostics.

## Programme

- Discovery lab program - Technological analysis (4h)
- BE drawing - Technological project (2h)
- BE quotation - Technological project (4h)
- BE manufacturing - Technological project (2h)
- BE machining range - Technological project (4h)
- Machining TP - Technological project (4h)
- Dimensional metrology practical work - Technological project (4h)
- Design work in RdM (4h)
- Dynamic lab (4h)

## Learning outcomes

- Knowing how to analyze the architecture of a mechanical system.
- Master the stages of design and manufacture of a mechanical system.
- To be able to control the geometric conformity of a mechanical system.
- To be able to diagnose the performance of a mechanical system.

## Independent study

Objectifs : This activity is not concerned with framed autonomy activities outside personal work.

Méhodes : This activity is not concerned with framed autonomy activities outside personal work.

## Core texts

Trotignon J.P., *PRÉCIS DE CONSTRUCTION MÉCANIQUE TOMES 1 ET 2*, Nathan, 2007
Brousse P. *MÉCANIQUE ANALYTIQUE*, Vuibert, Paris, 1981
Timoshenko S.P.*RÉSISTANCE DES MATÉRIAUX, TOMES 1 ET 2*, Dunod, Paris, 1990

## Assessment

Final mark = 100% know-how
Know-how mark = 100% continuous assessment.