

APPLIED SCIENCES FOR MECHANICAL ENGINEERING – 1 FIELD_9 ECTS

Introducing

Description

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Location(s)

 Toulouse

Mechanical design

Introducing

Description

The EU is divided into 3 parts:

1/ Mechanical Design:

- Modeling of mechanisms
- Design of complete removable links
- Design of the pivot links: friction and bearing

2/ Tolerancing:

- Geometric: ISO method

3/ Manufacturing Analysis

examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Location(s)

 Toulouse

Objectives

The objective of this teaching unit is to increase skills in the design and manufacture of mechanical products.

Necessary prerequisites

2IC CO12

2IC CT12

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes :

Mechanical manufacturing

Introducing

Location(s)

 Toulouse

Description

Tolerancing : CM 3,75h, TD 7,5h,
Manufacturing Analysis : TD 15h, TP 5h

Objectives

At the end of the Tolerancing-Manufacturing Analysis (TMA) module, the student should be able to develop a process plan for a simple part using appropriate methods, after decoding, interpreting, and/or creating the definition drawing.

Necessary prerequisites

Industrial Drawing, Design

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Ecological Transition, GHG Reduction, Responsibility and Environment (EARTH)

Introducing

Description

The teaching includes a "2 tonnes" workshop, which provides a fun way of understanding the orders of magnitude linked to the objectives of carbon neutrality in 2050. It also includes assignments on the following topics: housing; electricity production; inequalities and responsibilities; mobility; the climate inaction debate; agriculture and food; and aeronautics. Students also work on a complex problem linked to ecological issues, starting their reflections from an everyday object or service.

Objectives

At the end of this module, the student will be able to:

- ✕ Be comfortable with the fundamental concepts related to greenhouse gas emissions, and be able to make simple calculations on this subject.
- ✕ Know the order of magnitude of important quantities.
- ✕ Be able to fetch emission values from the ADEME database and use them appropriately.
- ✕ Think about ecological issues in all their complexity and study a specific problem
- ✕ Have an understanding of life cycle analysis and how to apply it
- ✕ Be able to research scientific literature

- ✕ Be able to understand and analyse figures/data
- ✕ Draw political conclusions from scientific facts and one's own values
- ✕ Debate, discuss and confront points of view.

Necessary prerequisites

Basic knowledge on energy.

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Location(s)

 Toulouse