Faculty of Applied Sciences

FSAB1601   Engineering drawing

[15h+15h exercises] 3 credits

This course is taught in the 1st semester

Teacher(s):   David Johnson, Benoît Raucent
Language: French
Level: First cycle

Aims

The purpose of this course is to provide students with the basic knowledge required to manually create "design drawings", to then be translated into "communication drawings" via a computer-aided drawing system. At the outcome of the course, students should be able to :
- analyse a complex system and identify its various components
- make hand drawings of simple components
- apply basic rules of descriptive geometry
- organize a drawing and apply specific drawing conventions
- understand the basics of computer graphics and analytical geometric modelling
- use a simple CAD system to create engineering drawings

Main themes

Basics of hand drawing and perspective
Basics of descriptive geometry relating to multi-view drawings
Analytical geometric modelling :
- Basic primitives (points, lines, surfaces) and their parametric and Cartesian representations
- Representation of models : wire-frame, surface, solid
- Special surfaces : revolution, ruled, #
- Central and parallel perspectives

Content and teaching methods

A strong emphasis is placed on tutorials and practical work, both in the drawing and CAD activities.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Prerequisites : none
Assessment : written examination centred on problems
Readings : instructors' course notes

Other credits in programs

FSA11BA	Première année de bachelier en sciences de l'ingénieur, orientation ingénieur civil	(3 credits)	Mandatory