

# Project CBE



## Presentation

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### Learning objectives

Deployment of a multidisciplinary project, in a team, with submission of a supporting file

Realization of a design project which allows the integration of the disciplines seen in the course of study.

The project can be concluded by the search for subcontractors (estimate of realization) or even the realization of a part of the proposed solution.

Breakdown of the course into groups of 3 to 4 students.

Understand the demand - translate the need - propose adapted solutions - justify technically and dimension the selected solutions  
- provide digital models and simulations when possible.

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### Description of the programme

8 to 10 planned sessions supervised by the teacher(s) in rooms equipped with the software taught in the course.

Computer-aided design - CATIA

Multiphysics modeling of systems with their control - MATLAB SIMULINK

Topology Optimization - Inspire

Key points :

bibliographic research

relationship with the customer for a common definition of the need to satisfy

justification of the results, understanding and physical size (simulation results)

feasibility (choice of processes, integration of existing components)

digital mock-up as complete as possible.

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### Generic central skills and knowledge targeted in the discipline

Creating value through scientific and technical innovation.

Understand all the scientific and technical dimensions of a project.

Master the complexity of systems.

Quickly deepen a field.

Develop work methods, to organize.

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## How knowledge is tested

An intermediate and a final defense. A presentation of the file at the conclusion of the project. CC1 Oral 10% CC2 Oral 30% CC3 Written 60%.

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## Teaching team

- Mohamed Boussak
- Jean Marie Rossi
- Christian Jalain

### Total des heures

PJ

**30h**

30h

## Useful info

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### Name responsible for EU

#### Lead Instructor

Christian Jalain

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