

Option Building Physics

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

Human Resources Management and Group Work



ECTS
6 crédits



Hourly volume
75h

Introducing

Description

Objectives

At the end of this module, the student will have understood and be able to explain (main concepts) :

Human Resource Management

Aims and organisation of a Human Resources position, job analysis and forecasting, recruiting, work motivation, skills, salary, training, career management, conflict mitigation, work contract

Social Psychology

Groups, what they are, their influences and dynamics

The student will be able to analyse a group situation

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Practical info

Location(s)

 Toulouse

Necessary prerequisites

None

Évaluation

HVAC – Building physics



ECTS
7 crédits



Hourly volume
99h

Introducing

Description

Objectives

At the end of this formation unit, the student will be able to dimension, to conceive and to propose a pertinent regulation of varied air conditioning installations.

Expected skills :

Design an air conditioning installation (HVAC) from determined specifications
Design a control system to optimize this facility
Design main elements of the installation

Évaluation

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évaluation par les pairs...

Practical info

Location(s)

 Toulouse

Future buildings



ECTS
6 crédits



Hourly volume
72h

Introducing

Description

Objectives

This teaching describes some of the great concepts of building and of running of buildings of the future. Namely, High Environmental Quality (HQE), Renewable Energies and Technical Management of Buildings (TMB).

Main goal of this teaching is to make student sensitive to these different concepts.

At the end of this module, the student will have understood and be able to explain (main concepts):

- Targets and areas of HQE , how to take them into account in the labeling of a building project
- The main principles of the methods of controlling an air conditioning system , and the operation of control systems in the HVAC industry
- The physical principles of different renewable energy sources (solar , geothermal, biomass , etc.) and

associated technologies

The student will be able to:

- carry out a HQE study on a simplified building
- describe and analyze a control system of an HVAC installation
- calculate and design a renewable energy system design for a real building project

Expected skills :

calculate energy coming from renewable sources from a CCTP, design the hydraulic and / or ventilation pattern of an HVAC plant using renewable energyimplement the HQE method on a building projectdesign a control system of an HVAC installation

Macro-skills evaluated : 2_1, 2_2, 2_3, 3_1, 3_2, 3_6, 3_8

Necessary prerequisites

- General lectures of semesters 7 and 8 of climatic

engineering - year 4 ;

- Basic physic.

Évaluation

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Practical info

Location(s)

📍 Toulouse

Methods and English



ECTS

6 crédits



Hourly volume

Introducing

Description

Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):

Elaborating means, planning and budget of a construction operation
Main techniques and methods in various sectors (building, bridges and roads)
Principles of Lean Management applied to Civil Engineering projects
Use specific vocabulary of Civil Engineering to complete reports and discuss key elements of a project

The student will be able to:

Elaborate methods.
Estimate a budget and establish a planning of works.
Pilot a project referring to Lean Management concepts
Communicate in English civil engineering environment

Évaluation

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

Practical info

Location(s)

 Toulouse