Civil engineering

ECTS credits
1 credits

Semester
Fall

In brief

Course langage: French

Presentation

Prerequisites

Continuum mechanics (see 1st year Mechanics course)

Learning objectives

- Give a general overview of the different types of projects and trades in the field of civil engineering
- Know the main phases of a construction project
- Acquire a general overview of:
  -- regulations ;
  -- Construction technologies, particularly reinforced concrete;
  -- Principles of dimensioning.
- Sensitize to the problems of sustainable development within the framework of the design and the realization of a work

Description of the programme

- General introduction
  -- The actors of the project
  -- The engineer - architect operation
  -- Timeline of a project (the different steps of a project)
- Regulations (of the building mainly) :
  -- Urban planning
  -- Fire safety
  -- PMR

-- Earthquake
-- DTU
-- Fascicules...

- Construction technologies: earthworks, foundations, different structures, other trades
- Load carrying capacity and bracing
- Dimensioning of structures (buildings and current engineering structures, such as bridges)
- Environmental quality and sustainable development in construction

Generic central skills and knowledge targeted in the discipline

- Know all the steps and actors of a project
- Know the regulatory constraints related to a project
- Know how to dimension the main elements of current works
- Know how to integrate the notion of sustainable development into a project

How knowledge is tested

CC : Report on a mini-project (100%)

Bibliography

- Course handout
- Course slides

Teaching team

Didier Bruneel (engineer, Bouches-du-Rhône department, Marseille)

Sustainable Development Goal



Sustainable cities and communities



Responsible consumption and production



Climate action

Total des heures		**24h**
CM	Master class	12h
TD	Directed work	12h

Useful info

Name responsible for EU

Lead Instructor
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