# Modél. et dév. de syst.Indust.-Mod. et Dev.Orientée Objet

Component
École Nationale Supérieure d'Électrotechnique d'Électronique d'Informatique d'Hydraulique et des Télécommunications

## In brief

- **plugin.odf-inp:PLUGINS_ODF_COURSE_NBHOURS_TXT:** 10
- **Code:** N7AE01C

# Presentation

## Objectives

Introduction to the basic concepts of object-oriented design and programming, illustration of these notions with the C++ language, specification analysis, abstract view of a problem, classification and reuse. Quick overview of other languages (Java) and object-oriented design methods (UML).

## Description

The course is divided into five chapters

- Introduction to the basic concepts of object -oriented design and programming

- Main characteristics of object-oriented languages (encapsulation, classification, inheritance, polymorphism, dynamic linking, etc.)

- Basic elements of  the C ++ programming language(typing, structuring of programs, references, etc.)

- The specificities of the object-oriented in C ++ (classification and inheritance, input-output, exceptions, templates)

- Basic concepts of other languages and object methods (quick introduction to Java and UML).

The practical classes give the student the opportunity to understand these concepts and development techniques and master them. The proposed project is focusing more on the design and classification aspect than on complex algorithms.

## Pre-requisites

Algorithms, Data Types and Data Structures, Programming in C

# Useful info

## Place

Toulouse