

IDENTIFICATION

Course code : DEV602
ECTS : 1

DURATION

Lectures : 4
Tutorial classes : 10
Labs : 10
Total : 24

Project :
Personnal work :

ASSESSMENT

Continuous assessments and practical evaluations.

TEACHING MATERIALS

Slides, directed work sheets and practical work sheets.

LANGUAGE

English

CONTACT

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UE : UE6-DEV

COURSE : Object-Oriented Programming

SCOPE OF THE COURSE

OBJECTIVES

The objective of this course is to acquire the fundamentals of the object-oriented programming model. This model is based on reusable objects and classes. The system to be developed is viewed as a set of objects that collaborate and interact with each other. Concepts such as inheritance or polymorphism allow these relationships to be described. The maintenance, modification and evolution of the resulting software are thereby facilitated.

COMPETENCE AND SKILLS

- Apply a methodology and formalism to design and develop an application
- Write and perform software tests

PROGRAM

- The Object-Oriented approach : Objects, Classes, Attributes, Methods, Constructors, Messages and inter-object communication
- Abstraction and overloading
- Object-oriented concepts : Encapsulation and data hiding, Inheritance, Polymorphism, Composition and Aggregation
- Object-based architectures.

BIBLIOGRAPHY

The Object-Oriented Thought Process (Matt Weisfeld)

REQUIREMENTS

Algorithms and data structures in C and Engineering Tools : Versioning, Deployment and Documentation