CONCEPTION ET PROGRAMMATION OBJET

OBJECT-ORIENTED DESIGN AND PROGRAMMING

Lecturers: **Emmanuel DELLANDREA**

| Lecturers : 8.0 | TC : 17.0 | PW : 0.0 | Autonomy : 5.0 | Study : 0.0 | Project : 0.0 | Language : FR

Objectives

The goal is to provide students with a basic knowledge of the design and development of programs using the object approach. These notions will be implemented through the Python language for programming and UML for modelling. The traditional lectures are limited in order to favour a practical approach in the form of programming exercises and short projects, some of which are evaluated.

Keywords : Object programming, object-oriented design, Python programming language

Programme	- Object-oriented design: Classes and instances. Encapsulation, attributes, methods. Aggregation, composition. Inheritance and polymorphism. Operator overloading. - Implementing concepts in Python. - Development of graphical interfaces.
Learning outcomes	• Know how to establish an object-oriented model of a computer application. • Know how to use the UML formalism. • Know how to implement an object model using the Python language. • Know how to implement an IT project, and write a report.
Independent study	Objectifs : To understand and deepen the course concepts implemented during practical works. Méhodes : Q&A sessions with teachers following the practical works to help with the completion of homework assignments.
Core texts	Bertrand Meyer, *CONCEPTION ET PROGRAMMATION ORIENTÉES OBJET.*, Eyrolles, 2008 Delannoy Claude *S'INITIER À LA PROGRAMMATION ET À L'ORIENTÉ OBJET.*, Eyrolles, 2016 Pascal Roques, Franck Vallée*UML 2 EN ACTION : DE L'ANALYSE DES BESOINS À LA CONCEPTION*, Eyrolles, 2007
Assessment	Grade = 50% knowledge + 50% know-how Knowledge grade = 100% final exam Know-how grade = 100 % Average of 2 reports