Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
INF481	Software Engineering and Object Oriented Design	8	4	0	0	4	5

Prerequisites	
Admission Requirements	

Language of Instruction	French
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	In this course, tools and techniques that can be used in object oriented design process are introduced and students are given the experience of applying them. These tools help design both visually and textually. Students gain the ability to use methods and tools that can increase productivity in any process that can be encountered in the life cycle of a software project. Students learn the place of software engineering in computer engineering. They understands the necessity of software design and then object oriented design. They can use UML, a visual design language accepted as world standard. They can design different software problems using UML language. Students will be able to describe the software development process and life cycle in detail and compare the software development processes used in the market. They can test the developed software and calculate its expected cost/effort.
Content	
References	1. Software Engineering, Ian Sommerville, Addison-Wesley, 10th Edition, 2015. 2. Introduction to Software Engineering Design, Processes, Principles, and Patterns with UML2, Christophe Fox, Addison-Wesley, 2006.

Theory Topics

Week	Weekly Contents
1	Introduction to software engineering and software design
2	Introduction to software project management
3	Software requirement analysis
4	Object oriented modelling, object oriented design (wireframe, mockup, prototype, responsive design)
5	Design patterns
6	Design patterns
7	Object oriented modelling, object oriented design (UML)
8	Application of UML modelling
9	Midterm
10	Software test techniques
11	Application of test techniques
12	Software development processes
13	Software cost estimation, software quality, software project management
14	Présentations de projets