lfsab1401

2017

Informatic 1

6 credits	30.0 h + 30.0 h	Q1

Teacher(s)	Bonaventure Olivier ;Pecheur Charles coordinator ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	Basic concepts of object-oriented programming The Java programming language Problem analysis; specification and implementation of solutions Linear data structures, including dynamic implementations.
Aims	Contribution of the course to the program objectives Regarding the learning outcomes of the program of Bachelor in Engineering, this course contributes to the development and the acquisition of the following learning outcomes: • LO 1.1, 1.2 • LO 2.4, 2.5 • LO 3.1 • AA 4.2, 4.3, 4.4 Specific learning outcomes of the course More precisely, at the end of the course the students will be able to • Demonstrate their understanding of the basic concepts and the methodology of object-oriented programming. • Use the main elements of an object-oriented language such as Java in an appropriate way. • Analyze a simple problem, to propose an algorithmic solution for this problem and to program the solution in Java. - - - - *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Evaluation methods	An intermediate evaluation takes place at mid-term. The mark obtained for this evaluation accounts for 1/3 of the final mark, only if it is superior to the mark obtained during the exam. The end-term exam aims to assess both the understanding of the course material and the capacity to apply it to correctly write simple Java programs.
Teaching methods	The chosen teaching method relies on active student participation in their own learning process. The specific modalities of the active learning approach used in the course are left to the initiative of the course teachers, within the framework of the pedagogical choices made by EPL.
Content	Source program and bytecode, execution Variables, types, values, assignment Expressions, instructions Methods, parameters, results Specifications Simple and multidimensional arrays Classes, objects, constructors, references to an object Class, instance and local variables, scope, visibility Extension of a class, inheritance, polymorphism, interfaces Exception Mechanisms Files, input/output Data collection classes, linked structures
Inline resources	http://moodleucl.uclouvain.be/course/view.php?id=7653
Bibliography	Le cours s'appuie sur l'ouvrage de référence suivant (en anglais): D. Eck, Introduction to Programming Using Java, Sixth Edition, 2013, http://math.hws.edu/javanotes/

Faculty or entity in charge	BTCI

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Engineering	FSA1BA	6		🔍