UCL Université catholique de Louvain

LINGE1225

2015-2016

Algorithms and Programming in Economics and Management

4.0 credits	22.5 h + 22.5 h	1q

Teacher(s) :	Saerens Marco ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	This module is more specific objectives: - Introduction to computer systems (hardware, basic software) - Life Cycle of a program. - Basic concepts of language used in object-oriented programming, illustrated on the language JAVA (objects, variables, expressions, control structures, data types, methods, etc). - Method for systematic construction of programs: modeling and specification of the problem - down reasoning and basic UML. - Application for the construction method '-type algorithms (research, accumulation, sorting, filtering, substitution, etc.). - Programming of a micro-application in Java (project). Thus, in practice, the module is structured around three axes: - A academic content (courses) - Work practices for improving one's programming - a programming project extended over a period of one month.
Aims :	This module aims to study the basic concepts of programming languages for object-oriented, illustrated on - a programming language (classes, objects, variables, expressions, control structures, data types, methods, etc). At the end of this course, students should be able to: - Being able to write a program in Java. - Being able to analyze a problem and find a solution through programming. - Undertake a small project 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".*
Content :	* Contents of the Practical: The practical sessions (tutorials or two hours each week), compared with the theoretical content will be organized. This exercise in Java programming, largely inspired by the book by Lewis & mp; Loftus. We are also planning four sessions during which students will program a Java project. The wording of the draft program will be published during the week before the Easter break. * Organization of work practices for a period of two hours, the exercises will be supervised by assistants. Students should have read the corresponding material to be able to resolve (see prerequisites at the beginning of each chapter).
Other infos :	* Evaluation: A written exam will take place during the review session. Note that this review will focus on solving practical programming in Java (writing methods and classes). We are not asking that the student knows by heart the syntax of Java: the review will be open book, the student will therefore manual Java (Lewis & mp; Loftus) in the examination. * Evaluation of practice evaluation will be organized at the end of the draft program (see table, project programming). Remember that this project will be carried out in groups of two and will write a small Java application on the basis of specifications. It will therefore appeal to the notions that have been worked in practice sessions earlier. At the end of the project, students must submit the application in micro-teacher questions about the work. This presentation of the project will account for 30% of the final. * Final Evaluation The final evaluation will take into account both the project presentation (30%) and the final written exam (70%). The written examination account for 70% of the final. Support: J. Lewis and W. Loftus (2004), Java Software Solutions, 3th edition, Addison-Wesley
Faculty or entity in charge:	ESPO

Programmes / formations proposant cette unité d'enseignement (UE)				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Bachelor in Business Engineering	INGE1BA	4	-	