LSINF1212

2012-2013

Computer science deepening project

5.0 credits	7.5 h + 45.0 h	2q

Teacher(s) :	Saerens Marco ;
Language :	Français
Place of the course	Louvain-la-Neuve
Prerequisites :	p { margin-bottom: 0.08in; } A first java programming course and a good familarity with object-oriented concepts (LSINF1101 or equivalent). A knowledge of basic algorithms is also mandatory (LSINF1103 or equivalent), as well as a good knowledge of the role of information systems in organisations (LSINF1211 or equivalent).
Main themes :	p { margin-bottom: 0.08in; } Some of the key topics that will appear in this project are, for instance (non-exhaustive) : -- Requirement analysis through UML. -- User interface design and implementation (swing). -- Database systems and SQL. -- XML structures.
Aims :	p { margin-bottom: 0.08in; } Students completing successfully this course will be able to : -- Design a software that meets the needs of an organization and therefore, clarify the role and use of a software application ' the software requirements. -- Develop a stand-alone medium-size java application that both meets the user requirements, is modular, and is easy to use and maintain. -- Justify why their design choices ensure the quality of the final software Students will have developed skills and operational methodology. In particular, they have developed their ability to: -- work in small teams to perform a project, so that each member of the team is able to defend the project outcome in front of computer scientists who aim to evaluate it's quality; -- perform a technical presentation of the project outcome using modern communication tools in order to convince computer scientists who evaluate the quality of the design and implementation; -- perform a persuasive demo of a software in front of future users of this application. *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 :	p { margin-bottom: 0.08in; } Evaluation: the student will be evaluated on the basis of the delivered java application and a presentation including -- A demo of the funtionalities of the software. -- A clear justification of the design choices. -- Questions and answers.
Teaching methods :	p { margin-bottom: 0.08in; } The teaching team will help the students to manage their project and provide the material for the understanding of new technical concepts. The project will be based on concepts studied in previous compute science courses. New concepts will be introduced during lecture organized in the framework of the project. p { margin-bottom: 0.08in; } The students will have to choose a java project among a list of project assignments. Each project will require a subset of the techniques described in the "main themes" field.
Content :	p { margin-bottom: 0.08in; } The students will work in small groups and will design and implement the software application after a user requirements analysis. At the end of the project, they will make a demonstration of the software.

Bibliography :	p { margin-bottom: 0.08in; } Useful reference book: any advanced java programming book, for instance P. Deitel & mp; H. Deitel (2011) « Java. How to program, 9th ed. ». Pearson, as well as additional book chapters.
Cycle and year of study :	> Bachelor in Computer Science > Master [120] in Linguistics
Faculty or entity in charge:	INFO