LFSAB1509

2012-2013

Project 4 (in Computer Science)

4.0 credits	22.5 h + 22.5 h	2q

Teacher(s) :	Deville Yves ;
Language :	Français
Place of the course	Louvain-la-Neuve
Prerequisites :	algorithmics and data structures (LSINF1121 or equivalent), computer systems (LSINF1252 or equivalent), programming language concepts (LINGI1131)
Main themes :	For example, depending of the precis topic of the project: -- mobile computing, -- programming using a object-oriented language, -- networking and communication, -- graphic interface, -- event-driven programming, -- client-server
Aims :	The skills that « projects 4 » aim to develop are on the one hand transversal skills which are commn to all projects 4, and on the other hand domain-specific skills connected with each specialisation. Transversal skills : Projects 4 aim at providing students with transversal skills close to the practice of engineering jobs within a multi-disciplinary context : -- analyse and improve existing systems ; -- analyse experimental data with a critical mind ; -- make the distinction between reality and models used to describe or modify it ; -- deal with the notion of uncertainty in the project approach, its conception and the obtained results. The project integrates the right to error notion, which is typical to young engineers starting a career. In addition, students will be encouraged to communicate in English on a technical theme, orally and/or in writing. Technical domain-specific skills : At the end of the project 4 computer, students will be able to: -- apply simultaneously and consistently the knowledge and skills acquired in different areas of computer science: mobile computing, java programming, networking and communication, graphic interface, event-driven programming, client-server. Some of these skills will be acquired through this project. -- identify and perform the various stages of software design. -- manage the planning of an IT project -- understand the architecture of a software in ordre to make informed choices to change or improve it; -- think critically about the project and its deliverables, in particular the relevance of the software, the analysis and design of the system, but also the management of the planning within the group. -- show off the software developed by the group through a demonstration and its distribution as an open source product. *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 :	The evaluation will focus on the software developed, its documentation, a project report and the oral presentation of the project including a demonstration of the software.
Teaching methods :	-- The project will be done by group of students (4-5 students per group) -- Students will be encouraged to communicate in English on a technical theme, orally and/or in writing.
Content :	-- The software to be defined and designed will be linked to mobile computing. It will be implemented on a Smartphone or an Android type tablet. -- The project will be opened. Each group will develop its own project and propose a schedule as well as intermediate steps. -- An Agile Programming approach (iterative and incremental development) may be considered. -- An open source approach will be followed, allowing a wide distribution of the software.
Other infos :	This course is part of the set of courses « Project 4 » in the bachelor in engineering programme. Projects 4 share common transversal objectives, but exist under different versions oriented towards specific disciplinary objectives, corresponding to the majors/minors of the programme. Each student chooses the project related either to his/her major or to his/her minor (if available).
Cycle and year of study :	> Bachelor in Computer Science > Bachelor in Engineering > Bachelor in Engineering > Bachelor in Computer Science

Faculty or entity in charge:	INFO