UCL Université catholique de Louvain

# LSINF1212

*2013-2014*

# Computer science deepening project

| 5.0 credits | 7.5 h + 45.0 h | 2q |
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| Teacher(s) : | Saerens Marco ; Gonzalez Montesinos Sebastian Andres (compensates Saerens Marco) ; |
| Language : | Français |
| Place of the course | Louvain-la-Neuve |
| Inline resources: | > http://icampus.uclouvain.be/claroline/course/index.php?cid=SINF2125 |
| Prerequisites : | p { margin-bottom: 0.08in; }<br>Basics of object-oriented programming (LSINF1101 or equivalent), algorithmics (LSINF1103 or equivalent) and information systems (LSINF1211 or equivalent) |
| Main themes : | The main course themes will be<br>--<br>specification of user requirements,<br>--<br>design of user interfaces,<br>--<br>data structures and persistence, and<br>--<br>software quality control. |
| Aims : | p { margin-bottom: 0.08in; }<br>The students who will succeed this course will be able to undertake the construction of a non-trivial information system, following elementary software engineering practices. More specifically, the students will develop their capacity to<br>--<br>analyse user requirements to build an information system,<br>--<br>systematically specify user requirements,<br>--<br>devise a system architecture under the light of the specified requirements,<br>--<br>implement the designed system in an object-oriented language, and<br>--<br>control the quality of the system through functional tests.<br>Additionally, the students will develop methodological and operational skills, such as<br>--<br>team work: divide and coordinate development tasks, such that each team member is able to defend the project when confronted to a quality evaluation committee;<br>--<br>convincingly demonstrate the system to potentially interested users;<br>--<br>effectively present the internals of the system to a technically savvy audience.<br>*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".* |

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| Evaluation methods : | p { margin-bottom: 0.08in; }<br>The evaluation of the project will be based on the quality of<br>--<br>analysis and design of the system (30%), including conformance to specified user requirements, software architecture, data structures and persistence, and the user interface;<br>--<br>system implementation (30%), including maintainability (readability, documentation, tests) and efficiency;<br>--<br>the final project report (10%).<br>The project will be drawn to a close through an oral defence as follows:<br>--<br>a first part demonstrating the functionality of the system (10%),<br>--<br>a second part presenting the technical internals of the system (10%), and<br>--<br>a round of questions and answers (10%).<br>The students defending in second session will have to add functionality extensions that are commensurate with the additional time they will have with respect to the first session. The evaluation criteria will remain unchanged. |
| Teaching methods : | p { margin-bottom: 0.08in; }<br>The groups will be assisted in managing their organisation and progress towards the project's objectives.<br>The project will be based on concepts given in parallel and in previous courses. New concepts will be introduced in plenary sessions.<br>The progress of the project will be monitored through practical sessions, in which the students will be able to ask their questions and show the issues they have encountered so far.<br><br>p { margin-bottom: 0.08in; } |
| Content : | p { margin-bottom: 0.08in; }<br>The students will work in small groups to design, develop, demonstrate and present their system.<br>A number of methodologies and tools will be introduced according the project needs, in particular:<br>Development methods driven by user requirements.<br>User interface building tools.<br>Data persistence tools.<br>Source code management tools. |
| Bibliography : | p { margin-bottom: 0.08in; } |
| Cycle and year of study : | > Master [120] in Linguistics<br>> Bachelor in Computer Science |
| Faculty or entity in charge: | INFO |