

CEG 4913 - Computer Engineering Design Project II /
Projet de Conception en Génie Informatique II

Course Outline

Winter 2012

<u>Professor:</u>	Pierre Payeur, SITE 5066
<u>Email:</u>	ppayeur@eecs.uottawa.ca
<u>WEB Page:</u>	www.eecs.uottawa.ca/~ppayeur/CEG491X
<u>Lecture:</u>	Tuesday, 2:30 PM to 4:00 PM, CBY E016
<u>Lab Sessions:</u>	Tuesday, 8:30 AM to 11:30 AM, SITE 2061 Friday, 11:30 AM to 2:30 PM, SITE 2061
<u>Professor Consultation:</u>	Tuesday, 1:00 PM to 2:20 PM, SITE 5066
<u>Course Description:</u>	<p>Applying previously acquired theoretical and experimental knowledge and skills from mathematics, basic sciences, engineering sciences and complementary studies, a team of students will pursue the design, implementation and validation of a significant computer engineering system to meet specific needs. The work carried out during the second term will represent the second iteration of the product design and will focus on implementation and testing while involving significant performance analysis, project management and risk mitigation considerations. Deliverables include a fully integrated and operational system prototype demonstration, written documentation and presentations in class. Work is guided by a professor, but is performed for a 'customer' entity, who must be satisfied with the team's demonstration of the product's features and functionalities.</p>
<u>Course Structure:</u>	<p>Lectures will serve as management meetings to ensure proper achievement of all components of the course and provide direct feedback to the teams. Group discussions and presentations will emphasize on various aspects of design, project planning, development, management, and on intellectual property.</p> <p>Two lab sessions are scheduled every week. They will provide students with time to integrate the components of their design, and to proceed with the necessary validation stages. The electronics lab will provide students with the opportunity to perform hands-on work with various devices that they already selected to use in their design. Students MUST attend the Management Meetings (as indicated by the professor on a weekly basis) and both Lab Sessions every week. Attendance will be monitored.</p>
<u>Teams:</u>	The same teams that were formed in the previous term will continue working together on their already defined project.
<u>Project:</u>	The teams will continue to work on the same projects that were defined in CEG4912 with the goal to reach a fully integrated and functional prototype at the end of the term, while starting from the components designed and built in the previous term. Significant changes in the nature of the project are subject to the professor's approval and are not encouraged.

Deliverables:

Five major deliverables must be provided. Deadlines must be respected and late submissions will not be accepted (dates below are tentative and will be confirmed over the term).

<i>Deliverables</i>	<i>Deadlines</i>
Update on status of the project	Jan. 13, 2012, 11:30AM
Intermediate Progress Report	Feb. 28, 2012, 2:30PM
Final Design and Validation Presentation	Apr. 3, 2012
Final Prototype Demonstration	Apr. 10, 2012
Final Design and Validation Report with Technical Documentation	April 17, 2012, 4:00PM

Details about the content and format of every deliverable will be provided in class and/or posted on-line.

Evaluation:

This is a **lab intensive course**. As such, there will be no assignments, quizzes, DGDs, midterm or final exam. The global evaluation will be based on the deliverables as follows:

<i>Deliverables</i>	<i>%</i>	<i>Marking</i>
Intermediate Progress Report	15%	Group mark
Final Design and Validation Presentation	25%	Individual mark
Final Prototype Demonstration	30%	Individual mark
Final Design and Validation Report	20%	Group mark
Individual Participation	10%	Individual mark

Final Mark: The final mark (FM) will be computed using the following rule (no exception):

IF $[0.25*Presentation(\%)+0.30*Demo(\%)] \geq 27.5(\%)$

THEN:

$FM=0.15*ProgRep(\%)+0.25*Present(\%)+0.30*Demo(\%)+0.20*FinalRep(\%)+0.10*Participation(\%)$

ELSE: $FM=1.8181*[0.25*Presentation(\%)+0.30*Demo(\%)]$

(which results in D, E or F, that is a failure mark)!!!

Update: January 4, 2012