Updated January 24th, 2007

CEG 4911 - Computer Engineering Design Project II

Section	Activity	Day	Location
CEG 4911 (Jan 4 - Apr 11, 2007)	LEC	Wednesday, 16:00 - 17:30	STE 2060
	LAB 1	*Wednesday, 17:30 - 20:30*	*STE 2061*
	LAB 2	*Thursday, 14:30 - 17:30*	*STE 2061*

***** Students must attend all lectures (LEC) and all laboratory groups (LAB).

Description An engineering design assignment in the area of computer systems. This is an intensive laboratory design course with associated briefing lectures and tutorials.
Prerequisite: CEG 4910

Professor

Dr. Emil M. Petriu, P.Eng., http://www.site.uottawa.ca/~petriu/

Teaching Assistants

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Course organization:

"Engineering design integrates mathematics, basic sciences, engineering sciences and complementary studies in developing elements, systems and processes to meet specific needs. It is a creative, iterative and often open-ended project, subject to constraints, which may by governed by standards or legislation to varying degrees depending upon the discipline. These constraints may relate to economic, health, safety, environmental, social or other pertinent factors." [*CEAB – Accreditation Criteria and Procedures*]

It is expected that, in this course, students will apply previously acquired theoretical and experimental knowledge and skills in carrying out a significant **capstone design project**. Different projects will be offered for student selection. A **team of usually 4 students** will work together on a project.

The **lectures will be concentrated in 1.5 hour/week sessions** aiming to provide a general framework for project design. The weekly **lab sessions** will be under the supervision of the professor and TAs. The actual project effort requires more work hours than the scheduled lab hours.

Marking Scheme => *some dates may be modified during the first four weeks*

*** Midterm (15% of the final mark):**

*(**deadline: 26 February 2007**)* The midterm will be in the form of a progress report. The report should show the teamwork as well as each member's contribution up to the midterm date. The report should be submitted to the TA no later than ***Monday, 26 February 2007, at noon.*** The midterm reports will be discussed individually with each team member, during the scheduled lab ***Thursday, 01 March. 2007)***

*** Final Exam**

***Project report* (20%):**
*(**deadline: TBA**)* This will be a comprehensive formal report detailing the background of the work conducted, the design methodology, the design diagrams, the analysis of results obtained, and the conclusion and recommendation of further studies. *It is expected that each team member underlines his/her personal contribution to the project. The*

mark given on the report will be assigned equally to each member of the team.

***Project presentation* (20%):**
*(**schedule: TBA**)*

This will be a presentation of the design.
The presentation will be conducted in front of the evaluation committee and with the attendance of all the course students and any other students wishing to attend. *Each member of the team will have to talk about his or her own contribution to the project. Team members will be evaluated individually based on their personal performance.*

***Demonstration* (45%):**
*(**schedule: TBA**)*

After the presentation of the project, all team members are required to make a demonstration of the project in front of the examining committee. *This demonstration will show the actual implementation of the design, how it works, and the results achieved. The mark given on the demonstration will be assigned equally to each member of the team.*

Lecture Schedule ***=> the sequence may change dependent on guest lecturer's availability***

- Wednesday, Jan. 17: **Engineering practice and design.** <= *E.M. Petriu*
- Wednesday, Jan. 24: **Designing complex robot systems.** <= *E.M. Petriu*
- Wednesday, Jan. 31: **Workplace hazardous materials – environmental design considerations.** <= *Andrew Zlotorzynski*
- Wednesday, Feb. 07: **Product-life and R&D cycles.** <= *Misbah Islam*
- Wednesday, Feb.14: **Hardware software codesign.** <= *V. Groza*
- Wednesday, Feb. 28: **Patent law.** <= *Wing T. Yan, Lawyer, Patent & Trade-mark Agent*
- Wednesday, March 07: **Entrepreneurship (I).** <= *Jim Pinard, Co-Founder and President, PIKA Technologies Inc.*
- Wednesday, March 14: **Entrepreneurship (II).** <= *Joseph Nour, Co-Founder and CEO, Protus™ IP Solutions*