

## M E M O R A N D U M - I I

*Department of Electrical and Computer Engineering*

**DATE:** January 3, 2012

**TO:** **Fourth-Year EE, CE, and SE students (via email)**  
Also posted at: <http://www.ece.uvic.ca/499/> under “Course Information”

**FROM:** Kin Fun Li, Computer Engineering Program Director and Coordinator  
for Design Project and Technical Project Courses  
CENG/ELEC/SENG 499, January – April 2012

**CONTACT INFO:** Email: [kinli@uvic.ca](mailto:kinli@uvic.ca), tel. 250-721-8683, fax. 250-721-6052

**SUBJECT:** **499 COURSE INFORMATION AND ASSESSMENT TECHNIQUES**

**1. Important Deadlines Spring 2012:** Additional meetings will be announced during the term. Please check the course Web regularly for updates.

<b>January 4, Wednesday</b>	<b>First Class, ELL-062, 18:00-18:50</b>
<b>January 11, Wednesday</b>	<b>Progress Meeting, ELL-062, 18:00-18:50</b>
<b>January 13, Friday</b>	<b>Deadline for submission of approved project, its title and team members (minimum three persons) to the Coordinator</b>
<b>January 25, Wednesday</b>	<b>Progress Meeting, ELL-062, 18:00-18:50</b>
<b>January 27, Friday</b>	<b>Progress Report #1 submitted to Supervisor, copied to TA</b>
<b>February 8, Wednesday</b>	<b>Progress Meeting, ELL-062, 18:00-18:50</b>
<b>February 13-17</b>	<b>Reading Break</b>
<b>February 22, Wednesday</b>	<b>Midterm Review Meeting, ELL-062, 18:00-18:50</b>
<b>February 24, Friday</b>	<b>Progress Report #2 submitted to Supervisor, copied to TA</b>
<b>March 7, Wednesday</b>	<b>Progress Meeting, ELL-062, 18:00-18:50</b>
<b>March 21, Wednesday</b>	<b>Progress Meeting, ELL-062, 18:00-18:50</b>
<b>March 27, Tuesday</b>	<b>Equipment Loan List for Project Demo to TA</b>
<b>March 30, Friday</b>	<b>Poster Presentations starts at 16:00; Engineering Lab Wing Lobby; Setup starts at 13:00</b>
<b>April 5, Thursday</b>	<b>Last day of classes, Final Report submitted to Supervisor (grade penalty may be applied to late submissions), project URL submitted to the Coordinator and TA</b>
<b>April 13, Friday</b>	<b>Coordinator receives grades from Supervisors for Progress Reports and Final Report and Website evaluations from panel of judges</b>

**Academic Teaching Assistant (TA): Zhe Yang, [zyang@uvic.ca](mailto:zyang@uvic.ca)**

### **2. Course Objectives**

The Design Project course is intended to provide an opportunity for students to carry out a significant design experience by working on a project in a team of 3-5 persons. Each team will be assigned a suitable project supervised by a faculty member. The projects may originate from faculty members, students, companies, or other external sources. They may

have a diverse nature (theoretical investigations, practical designs, measurements, software developments, etc.) and serve diverse needs (research, undergraduate laboratory experiments, open house demonstrations, feasibility studies of interest to local companies, etc.). For multi-disciplinary projects or acceptable projects originated external to the Department, a faculty supervisor from ECE or CSC Department will be appointed.

### 3. Course offerings

The above 499 courses are being offered in the spring and summer terms and are compulsory for Computer Engineering (CENG 499), Electrical Engineering, (ELEC 499), and Software Engineering (SENG 499) programs. The SE Program is offered jointly by the ECE and CSC Departments and students taking SENG 499 can approach both CSC and ECE faculty as potential project supervisors/co-supervisors.

### 4. Project Selection

Available projects are listed at: [www.ece.uvic.ca/499/](http://www.ece.uvic.ca/499/) that also documents past projects. Students must form teams of 3-5 persons and select a suitable project from the list of pre-approved projects. For those who need to search for partners or for other communications, a blackboard/wiki has been set up and can be accessed via the course Web. The team should be formed as a small company having a name, a suitable logo, and a motto. Students are encouraged to select a project originating from an industrial or external organization. An extensive directory of local industry can be found under:

<http://www.viatec.ca/BusinessDirectory.aspx>. Teams formed with students from other Departments are encouraged but only students registered in the 499 courses will be evaluated by the ECE Department. Please notify the Coordinator of your project selection by completing the enclosed form by January 13, 2012. If you intend to propose your own project, please provide the Coordinator with the appropriate description of the project, the resources needed, and the name of the potential Faculty Supervisor that you have approached beforehand and agree to supervise your project. Since some projects might require specialized parts, it is very important that you finalize a complete project proposal and get it approved by the Coordinator prior to the deadline of January 13, 2012.

Students failing to submit an approved project by the deadline will be de-registered from the course. In any email correspondence, include the group (project) number (to be assigned) in the subject line.

### 5. Requirements

It is expected that systematic effort be put into this course comparable to that of any other course with a full laboratory component, namely approximately 9 hours/week. Due to the unstructured nature of the course, students are expected to show a great deal of self-discipline and initiative.

The following are the specific minimum requirements:

#### (a) Progress Reports

Two progress reports are required and must be submitted electronically on the required dates to the Supervisor for comments and evaluation (cc to TA: Zhe Yang, [zyang@uvic.ca](mailto:zyang@uvic.ca)). The first progress report should clearly define a problem, the team (“company”- with contact information), the scope of the project, a proposed solution, the assigned tasks, the anticipated milestones and progress made (if any). It should also include a project summary. The summary will be used to publicize the Poster Presentation.

**REQUIRED INFORMATION**

Project Number: (to be assigned)

Project Title:

Personnel (include Email address of a contact person):

Faculty Supervisor:

Project Summary (approximately 200 words) – use simple language that appeals to the general public

**The second progress report** should indicate the progress made so far and should form the basis for the final report. Both progress reports are to be returned to the team by the supervisor with suitable comments and grade within one week and are to be included as appendices in the final report.

**(b) Poster Presentations and Project Demonstrations**

Poster presentations and project demonstrations opened to the public are to be made for each project during a specified time. Each team will be provided with a 6'x4' table and a 47" x 47" panel in the ELW Lobby (booked from 1:00 pm on the day of the demo). Post the team members' names and name of the Sponsor (if applicable) and Supervisor. The team is expected to be present to offer all necessary explanations. This event is sponsored by the IEEE Victoria Section and co-sponsored by other organizations with cash prizes for the winning projects.

Loan of Equipment for Project Demonstration Day:

You must send to the TA a list of equipment you require for your demo, three business days prior to the Project Demonstration Day. This includes all lab equipment, computers, monitors, Internet access and any special requirements (access to compressed air, water, outdoor setup, etc.)

**(c) Web Presentation**

A suitable Web presentation based on the poster presentation, demonstration, and other material must be prepared to provide a project description and the results obtained. These Web pages are to be set up on students' Engineering accounts. These presentations will be archived on the permanent Departmental Website for the benefit of future students. The following requirements apply to the Web presentations:

- (1) Heading of Web pages should clearly indicate that they are for the Design Project/Technical Project course CENG /ELEC/SENG 499 and should include the name of the Supervisor and if applicable, the Sponsor.
- (2) Web pages will be in the public domain. Check with your Supervisor and Sponsor and obtain their approval for the contents of your presentation.
- (3) Test your Web pages to ensure that they work properly with commonly used browsers such as Internet Explorer, Safari, and Firefox, and also when accessed from various platforms, that is, PCs, Macs, and UNIX.

- (4) Avoid using plug-ins that are non-standard or normally not installed with browsers by default.
- (5) The Web pages should be location independent and, therefore, will work properly when transferred to the ECE Web page.

To avoid problems with locations you should use relative links rather than absolute links. For example, if your Web page resides at address “http://www.ece.uvic.ca/~student1” and you have pictures for the Web page residing in a directory called images, the Web page should link to the pictures using “images/picture1.jpg” rather than “http://www.ece.uvic.ca/~student1/images/picture1.jpg.”

To test your page you can transfer the page to the UNIX home directory of another student.

- (6) It is desirable that the Web pages be properly designed and not just, for example, a Power Point Presentation or Word document converted to HTML.

**A zero (0) mark will be given to Web presentation if any of the above is not satisfied.**

(d) **Final Report**

A final report is required for each project. It should be typewritten and bound. It should document all technical aspects of the project and be submitted on the required date to the project Supervisor for evaluation. It will not be returned to the team.

(e) **Technical and Progress Meetings**

Students are expected to attend all technical and progress meetings as scheduled.

**6. Grading**

Progress during the term	10%
Poster presentation and Demonstrations	10%
Web presentations	10%
Final Report	<u>70%</u>
	100%

Progress is marked by the supervisor and is based on progress as documented in Progress Reports #1 and #2.

Poster presentations and demonstrations are graded by markers designated by the Coordinator. Marks will be based on how well the project is communicated, in addition to the technical merit of the project. The following criteria were used in the past:

- a. Excellent display, demo, and team
- b. Very good, but without “sparkle”
- c. Good, but missing some elements
- d. Hodgepodge job but still acceptable
- e. Not acceptable
- f. Very poor

Web presentations are marked by the Coordinator or by faculty designated by the Coordinator. The following criteria were used in the past:

- a. First page impression
- b. Ease and intuitiveness of navigation
- c. Esthetic value
- d. Clarity of presentation
- e. Website operation
- f. Efforts put in

The Final Report must be included in the Web presentation.

Final Reports are marked by the Supervisor (consult the Supervisor to determine what he/she requires). The final letter grade obtained from the above marking scheme will be based on the following percentage-to-grade point conversion:

$90 \leq A+ \leq 100;$	$75 \leq B+ < 80$	$60 \leq C+ < 65$
$85 \leq A < 90;$	$70 \leq B < 75$	$55 \leq C < 60$
$80 \leq A- < 85;$	$65 \leq B- < 70$	$50 \leq D < 55$
$F < 50$	Fail	
N	Fail, did not complete course requirements by the end of the term (no Final Report submitted, no borrowed parts returned)	

## 7. Awards

- a. **The ECE Department Chair Award** (cash and a certificate) will be given to a team for the best project as judged by the Department based on the Final Report. This will take place once a year and will include students taking CENG/ELEC/SENG 499 during the spring and the summer term.
- b. **IEEE Awards** will be given on the demo day based on presentation.
- c. **Other sponsored Award** - to be announced.

## 8. Project Execution

The ECE Administrative Officer, in consultation with the Coordinator and Supervisors, will designate suitable times and laboratory space for work related to the project.

The general laboratory for the projects is located in ELW B336. Students registered in 499 will have card access to this lab. Resources available in the lab include PCs, scopes, signal generators, multi-meters, etc. IEEE Student Members can access the soldering facility in the IEEE McNaughton Centre (ELW-B350). A soldering station is also available for use under supervision in ELW B320 (ECE tech shop). ECE's tech shop has various parts in stock including capacitors, resistors, ICs, and a few development kits (PIC, ATMEL). Signing out equipment, electronic/mechanical components and access to technical data books shall be done in accordance to the rules as set by the Department. This will be considered to be part of the course requirements and failure to comply may result in an N grade for the course.

The Department has some limited funds for component purchases and Supervisors may also have funding for component purchases. **Components to be purchased by the Department**

**must be authorized in writing by the Coordinator and should be ordered by ECE technical support staff.** Orders are normally placed once per week. Parts bought by ECE Department remain the property of the Department.

ECE technical support staff:

Rob Fichtner [rf@uvic.ca](mailto:rf@uvic.ca)  
Paul Fedrigo [pfedrigo@ece.uvic.ca](mailto:pfedrigo@ece.uvic.ca)

SENG technical support staff:

Lynn Palmer [lpalmer@uvic.ca](mailto:lpalmer@uvic.ca)  
Seann Wagner [swagner@uvic.ca](mailto:swagner@uvic.ca)

On academic matters SENG students should contact Software Engineering Program Director, Dr. Jens Weber, [jens@uvic.ca](mailto:jens@uvic.ca)

## 9. Other information

### **Guidelines on Religious Observances**

1. Where classes or examinations are scheduled on the holy days of a religion, students may notify their instructors, at least two weeks in advance, of their intention to observe the holy day(s) by absenting themselves from classes or examinations.
2. Instructors will provide reasonable opportunities for such students to make up work or missed examinations.
3. Students will cooperate by accepting the provision of reasonable opportunities for making up work or missed examinations.
4. The University Secretary's Office will distribute a multi-faith calendar to each academic unit annually.

### **Commitment to Inclusivity and Diversity**

The University of Victoria is committed to promoting, providing and protecting a positive, supportive and safe learning and working environment for all its members.

### **Standards of Professional Behaviour**

You are advised to read the Faculty of Engineering document Standards for Professional Behaviour at <http://www.engr.uvic.ca/policy/professional-behaviour.php> which contains important information regarding conduct in courses, labs, and in the general use of facilities.

Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult <http://web.uvic.ca/calendar2010/GRAD/FARe/AcIn.html> for UVic policy on academic integrity.

- cc. CSC and ECE Faculty  
F. Gebali, ECE Chair; S. Whitesides, CSC Chair  
J. Weber, SE Director; M. McGuire, EE Director  
ECE and SE Technical Staff  
D. Mai, ECE Administrative Officer

**MEMORANDUM**  
*Department of Electrical and Computer Engineering*

**DATE** December 2, 2011

**TO:** **Students registered in CENG/ELEC/SENG 499**  
Department of Electrical and Computer Engineering (by Email)

**FROM:** Kin Fun Li, Coordinator for Design Project/Technical Project Courses  
CENG/ELEC/SENG 499, January – April 2012

**CONTACT INFO:** Email: [kinli@uvic.ca](mailto:kinli@uvic.ca), tel. 250-721-8683, fax. 250-721-6052

**SUBJECT:** Project and Team Selection

Please submit this form to Kin F. Li ([kinli@uvic.ca](mailto:kinli@uvic.ca)) by January 13, 2012

Project Title: \_\_\_\_\_

Project Number if selected from list of pre-approved project: \_\_\_\_\_

Self-proposed project must submit Coordinator's approval with this form.

Faculty Supervisor: \_\_\_\_\_

External Advisor (if any): \_\_\_\_\_  
(Include Email and/or phone number)

The Team (minimum three students):

Family name	First name	Email	Student No.	Registration in CENG499 or ELEC 499 or SENG 499