M E M O R A N D U M

Department of Electrical and Computer Engineering

DATE: May 1, 2014

TO: **CENG/ELEC/SENG 499 students - class 2014** (via email)
Also posted at: http://www.ece.uvic.ca/499/ under "Course Information"

FROM: **Dr. Adam Zielinski**, Coordinator for **Design Project II** Courses:
CENG 499 (CRN 30078), ELEC 499 (CRN 30323) and SENG 499 (CRN 30728)
May – August, 2014

Email: adam@uvic.ca, Tel. 250-721-8622, Fax. 250-721-6052
Teaching Assistant (TA): Alipour, Philip (*philipbaback_orbsix@msn.com*)

SUBJECT: 499 - COURSES INFORMATION AND ASSESSMENT TECHNIQUES

Scheduled meetings days: Fridays: 8:30 am – 9:20 am in ECS 116

1. Important Dates and Deadlines in 2014 (Check 499 website above for the updates)

May 5, Monday	Classes start
May 9, Friday	**Meeting #1: Course information, team selection**
May 16, Friday	Deadline for submission of approved projects, its title, team members and team Manager to the Coordinator.
May 19, Monday	Victoria Day (Holiday)
May 26, Monday	Progress Report #1 submitted to supervisor, copied to TA
May 30, Friday	**Meeting #2: Progress Presentations** (3 min pitch**)**
June 16, Monday	Progress Report #2 submitted to supervisor, copied to TA Work log #1 submitted to supervisor, copied to TA
June 20, Friday	**Meting #3: Midterm Review Meeting (**3 min pitch**).**
June 27, Friday	Work log #2 submitted to supervisor, copied to TA
June 30, Monday	Reading Break
July 1, Tuesday	Canada Day (Holiday)
July 11, Friday	**Meeting #4: Progress (**3 min pitch)
July 14, Monday	Work log #3 submitted to supervisor, copied to TA
July 21, Monday	Equipment requests for Public Presentations
July 25, Friday	Public Presentations. start at 16;00 (setup starts at 13:00)
Aug. 1, Friday	Last day of classes, Final Report and websites submitted to supervisors (grade penalty may be applied to late submissions),
August 13, Friday	Coordinator receives grades from supervisors for Progress Reports (combined) and Final Report and Website evaluations from panel of judges
August 18, Monday	Exams end

Note: Other activities will be scheduled as appropriate.

2. Course Objectives

The Design Project course is intended to provide an opportunity for students to aquire 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, other external sources or be continuation of ELEC399 projects. 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

Courses 499 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. From summer 2014 the above 499 courses are being offered only in the summer term

4. Project selection for 499 Courses

Students must form team of 3- 4 students and select a suitable project from the list of available projects. Available projects are listed at: www.ece.uvic.ca/499/ that also contains past projects. The project should be formed as a small company having a name, a suitable logo, manager 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/business-profiles/results**.** 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 Project Coordinator (adam@uvic.ca) of your selection by completing and submitting the enclosed form by **Friday, May 16.** If you intend to propose a project outside the preapproved list, please provide the Coordinator with a half-page description of the project, the resources needed, and the name of the faculty supervisor who will have been approached beforehand and will have accepted the project. Since some projects might require specialized parts, it is very important that you finalize a complete project proposal and get it approved prior to the deadline. Students failing to submit the approved project by the deadline might be de-registered from the course. In any email correspondence **always** include the assigned project number assigned (or 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 requirements:

(a) **Work logs (3)**

Three work logs are required and must be submitted electronically in Excel format on the required dates to the supervisor with copy to TA

(b) **Progress Reports (2)**

Two progress reports are required and must be submitted electronically in format MS word on the required dates to the supervisor for comments and evaluation with copy to TA:
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).

The second progress report should indicate the progress made so far and should form the basis for the final report. It should also include a project summary. The summary will be used to publicize the Public Presentation.

REQUIRED INFORMATION

Project Number: (to be assigned by the coordinator)
Project Title:
Personnel (include Email address and phone of the manager):
Faculty Supervisor:
Project Summary (approximately 200 words) – use simple language that appeals to the general public

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.

(c) **Public presentations and demonstrations**

Project demonstrations and presentation will be made to the Faculty and University community and the general public. Each team will be provided with a 6'x4'table for the demo and prototype in the ELW Lobby (booked from 1:00 pm on the day of the demo). Each team should display the names of the team members, supervisor, and sponsor (if applicable). The team is expected to be present to offer all necessary explanations. In addition, each team is required to provide pamphlets to be given out to interested audience. The design of the pamphlet should be similar to that of a commercial product. This event is sponsored by the IEEE Victoria Section and co-sponsored by other organizations with cash prices for the best 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.)

(d) **Web Presentation**

A suitable Web presentation based on the public presentation, demonstration, and other material must be prepared to provide a project description and the results obtained. These Websites are to be set up on students' Engineering accounts. These websides 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 Report 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.

(e) **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, references (including Figures) 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**

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

6. Grading

Progress reports (2)	10%
Class presentations (2)	2%
Public Demo + pamphlets	10%
Web presentations	8%
Final Report + Work Log	70%
	100%

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

Public presentations, demonstrations and pamphlets are graded by markers designated by the Coordinator. Marks will be based on how well the project is communicated, and not only the technical merit of the project. The following criteria are suggested:

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 Final Report must be included in the Web presentation.

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

Final Reports (with Work Logs) are marked by the project Supervisor (consult the Supervisor to determine what he/she requires). The following elements are suggested to consider when evaluating the Report: project motivation, objectives and specifications, review of design alternatives and rationale for decisions made, project management and team work, prototype, discussion and conclusions. Note that members of the team may not receive the same grades. The final letter grade obtained from the above marking scheme will be based on the following percentage-to-grade point conversion:

$90 \leq$ A+ ≤ 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 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 in 2014
b. IEEE Awards will be given during Public Presentation based on presentations.
c. Other sponsored Award - to be announced.

8. Project Execution

The ECE Administrative Officer, in consultation with the project coordinator and supervisor, 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 into these labs. Resources available in these labs include PCs, scopes, signal generators, multi-meters, and a soldering station. Additional soldering stations are also

available 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 with the rules 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 funding for component purchases ($120 per group) 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 (Thursdays). Parts bought by ECE Department remain the property of the Department. Students may purchase and keep their own parts.

ECE technical support staff:
Rob Fichtner rf@uvic.ca
Paul Fedrigo pf1@uvic.ca
Brent Sirna brent@uvic.ca

SENG technical support staff:
Lynn Palmer lpalmer@uvic.ca

On academic matters SENG students should contact the SENG Program Director,

9. Other information

Faculty of Engineering Standards for Professional Behavior

You are advised to read the Faculty of Engineering document: Standards for Professional Behavior (see: 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/calendar2009/FACS/UnIn/UARe/PoAcI.html for the UVic policy on academic integrity.

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.

cc.
CSc and ECE Faculty and ECE Technical Staff (by Email)
F. Gebaly, ECE Chair
SE Director
ECE Adm. Officer

M E M O R A N D U M

Department of Electrical and Computer Engineering

DATE May 1, 2014

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

FROM: Dr. Adam Zielinski, Coordinator for Design Project/Technical Project Courses
CENG/ELEC/SENG 499, May – August, 2010

CONTACT INFO: Email: adam@uvic.ca, Tel. 250-721-8697, Fax. 250-721-6052

SUBJECT: Project and Team Selection

Please submit this form to Adam Zielinski (adam@uvic.ca) by Friday May 14, 2014.

Project Title: _____
(and number if from the pre-approved list)

Faculty Supervisor:_____

Outside Advisor _____
(if applicable – include Email)

The Team (minimum three students):

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