

Memorial University of Newfoundland  
**Engineering 7800 Electrical and Computer  
Engineering Design Project (Part I)**

**General Information and Guidelines**  
Summer 2005

<http://www.engr.mun.ca/~licheng/7800>

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**I. General Information**

**Coordinator:** Cheng Li, [licheng@engr.mun.ca](mailto:licheng@engr.mun.ca), EN - 4012, 737- 8972

**Office Hours:** Thursday 14:00 - 16:30, or by individual appointment

**Teaching Assistant:** Robert Collette, [robert@engr.mun.ca](mailto:robert@engr.mun.ca)

**Evaluation Scheme\*\*:**

Project Proposal:	10 %
Oral Presentation:	15 %
Log Book:	15 %
Final Report:	35 %
Overall Performance:	25 %

**Important Dates\*\*:**

Project Title	Wednesday, May 25, 2005
Project Proposal	Wednesday, June 1, 2005
Log Book Check	Three time during the term with 24-Hrs notice
Oral Presentation	Thursday / Friday, July 21 / 22, 2005
Log Book Submission	Monday, July 25, 2005
Final Report	Wednesday, July 27, 2005

\*: The research area of ECE faculty members can be found at  
<http://www.engr.mun.ca/people/faculty/elec/>

\*\* : Details about the evaluation scheme and submission deadline please refer to Section 4 and 5 in the Project Guidelines.

## II. Project Guidelines

### 1. Introduction

Each student is required to work independently on a design project having Electrical / Computer Engineering pertinence, and to present written and oral reports on this work. Projects will normally be open-ended and involve design, implementation and testing of hardware and/or software components. Lectures and meeting times will be scheduled as necessary.

Each student should budget at least **50** hours for the project I, which corresponds to about **4 hours per week** over the **12 weeks** prior to submission of the Final Report.

### 2. Components and Equipment

The policy associated with expenditures in the 7800/8800 ECE Design Project courses is given below:

- (1) If the student is planning to keep the project hardware, then they must pay for all its component and construction costs.
- (2) If the supervisor is expecting to use the hardware in their research, the supervisor may pay out of their research grant.
- (3) If the student plans on leaving the hardware with the Faculty and the supervisor plans on using the hardware in a future course then the supervisor may forward a request for the expenditure, along with the rationale, to the discipline chair. The discipline chair will approve the expenditure, if appropriate, using Faculty funds.

Note that often inexpensive components may be simply acquired out of the electronics stores. Students should see the electronics technicians, for such requests.

Also, students sometimes wish to have things manufactured by the University Technical Services. Again, the policy on such expenditures is given in (1) to (3).

Students are not permitted to load unlicensed software onto faculty computers and any installation of software onto faculty computers must be done by CCAE.

### 3. Intellectual Property

Students are advised that if the issue of the ownership of the intellectual property (e.g. analysis results, design, statistics collected, final report) should arise, the students should consult with the course coordinator before entering any agreement with any group outside of the Faculty of Engineering and Applied Science.

Regardless of the nature of the project, the project student must be prepared to provide sufficient detail in the oral and written presentations to facilitate a fair evaluation of the project. Note that marks can **only** be assigned on the basis of the information (e.g. background, technical details, results) provided by the student in the written and oral presentations.

#### **4. Documents and Reports**

##### **(1) Project Title**

***A project title must be submitted (2 copies) by 5pm on Wednesday, May 25, 2005.***

This document must include the project title and the name(s) of your supervisor(s). It must be signed by both supervisor(s) and student.

##### **(2) Project Proposal**

***A project proposal (2- pages maximum) must be submitted (2 copies) by 5pm on Wednesday, June 1, 2005***

This document must include the proposal of the project and a brief discussion of the problem and design methodology. The title and proposal must be approved by your supervisor, who must sign the document before it is submitted.

##### **(3) Final Report**

***Students are required to submit (2 copies) a final technical report to the course coordinator by 5pm on Wednesday, July 27, 2005.***

This report should be about 20 pages in length to cover preliminary design, and with preliminary design, references and appendices containing code, test results, graphs, schematics, illustrations, mathematical derivations / basis, etc. Further details regarding final report format and content will be provided during the term.

##### **(4) Log Book**

A *log book* must be maintained by each student. The log book, which serves as a technical diary, must contain an account of the work performed and an accurate account of time spent on the project. The time should be recorded in a table, which includes the date, the task name, the time spent and the cumulative time spent. In many industrial projects, the client is billed (e.g. monthly) based on the time spent by the contractor's staff.

The log book must contain a record of the progress of this project and students must record concepts, events, thoughts, calculations, analysis, design procedures, and discussions in the log book. This must also contain a record of your activities in developing the concept for your project and the notes associated with discussions with prospective supervisors. The log book must be a bound note-book (hand written, not typed) and must be updated as the work is carried out over the course of the project. Data sheets, print outs, photographs, etc., must be pasted into the log book. Entries into the log book must be made using a non-erasable ink.

The log books may be collected at **any time** during the term and evaluated by the course coordinators. The coordinator will give **24 hour** e-mail notification prior to the collection of the log books. **Log books must also be submitted at Dr. Cheng Li's office by Monday, July 25, 2005, at the latest, for marking.** The marked log book and final report will be returned to the students before the end of the term, for its use in ENGI 8800 in the 2006 winter semester.

#### **(5) Oral Presentation**

Each student is required to give a 12-minute oral presentation (including 2 minutes for questions) on his/her project. *These presentations, which are scheduled for Thursday / Friday, July 21-22, 2005,* will be open to all students and faculty, as well as project supervisors from industry and government. **Attendance at these oral presentations is mandatory** and the dress for all members of the class is business attire.

#### **5. Evaluation**

Evaluation of the project will be based on the students' contribution, technical competence, innovation, and communication skills (written and oral).

The marks for the written reports and digests will be assigned by the course coordinator based on a recommendation from the project supervisor(s). The Log Book will be graded by the course coordinator and TA.

The oral presentations will be graded by all Term 7 Electrical and Computer Engineering students, graduate students, faculty, and other supervisors or co-supervisors in attendance at the oral presentations. The overall performance and demonstration marks will be decided by the course coordinator in consultation with the student's project supervisor(s).

\*\*\* Note that **penalty** marks of one mark per day will be deducted from the final course marks for late submission of reports / log books or for submission of unacceptable reports / log books.