SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course name: RESEARCH PROJECT/REPORT.

Code No.:   ELN 319 - 3

Program: ELECTRONIC TECHNOLOGY

Semester: SIX

Date: January 1996

Author: PETER SZILAGYI

                                NEW:_____   REV.: _X_

Approved: _____   _____
                 Coordinator   Date

Approved: _____   _____
                 Dean   Date

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Total credit hours: 15

- -

Prerequisites: ELN 320

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PHILOSOPHY/GOALS

The Research Project/Report is intended to demonstrate that the
students can function at the Engineering Technology level. The
project may be a hardware or software system development or other
appropriate research as agreed upon by a faculty advisor.

STUDENT PERFORMANCE OBJECTIVES

Upon successful completion of this course, the student will be able
to:
- Research and prepare a detailed technical report.
- Demonstrate good project management skills.
- Design, build and demonstrate a working technical project.

TOPICS TO BE COVERED

As approved by faculty advisor.

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LEARNING ACTIVITIES   **REQUIRED RESOURCES**

Research as required by   - College Library
individual Project/Report.   - Manufacturers Data
                                             Books
The student will maintain a   - Application Notes
daily logbook (project diary)
as a record of his or her
progress.

Periodic Status Reports will be
submitted to the faculty
advisor to ensure adequate
progress is being made toward
completion of the project.

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METHOD OF EVALUATION

The final grade of this course will be based on evaluations of the student's final report, project implementation, and management skills.

MARKING SCHEME

Final report: 40%
Working project 40%
Daily log 10%
Management skills 10%

In order to attain a passing grade, the student must have an overall average of at least 55%, a **WORKING** hardware or software project, a final report and a daily log book.

GRADING SYSTEM

A+ . . . . 90% to 100%
A . . . . 80% to 89%
B . . . . 70% to 79%
C . . . . 55% to 69%
R . . . . < 55%

OUTLINE OF REQUIREMENTS

Each student will be required to submit a Technical Report on a subject related to his/her program area. The Report must demonstrate a thorough understanding of the subject addressed and be written at a level appropriate for a Technologist.
Technology level mathematics should be used wherever needed to improve the substance and clarity of the report. There should be no spelling mistakes, grammar and syntax should be good, and expressions should be clear and logical.

The Report should
1. have a title page.
2. have a table of contents.
3. include a declaration of authorship and purpose.
4. include a summary of about one page (abstract).
5. be typed, one side only, 1½ line or double spaced.
6. be no longer then 20 pages, schematic diagrams excepted.
7. conclude with a summary
8. include appendices as appropriate.

- Before any work is spent on a project, the research student must prepare a one-page summary (typed) of his/hers proposed project and that summary must be approved by the faculty adviser.

- The deadline for the completion of the project is Friday, April 19. On that date, or before, both the report and the working prototype are to be handed in. Late reports or late projects, regardless of their complexity, will be graded "C" or "R".

- All students are urged, to not engage themselves into complex, complicated and overly ambitious projects, as such is not the scope of this course. Respecting deadlines and initial specifications, then finishing the project and the report are the most important requirements.

SCHEDULE

WEEK	ACTIVITY	DATE
1	Suggested projects and procedures explained.	Jan. 13 1996
2	Selection of projects is complete.	Jan. 20
3	Students hand in a written proposal, including the system block diagram, requirement specifications and list of components to be ordered.	Jan. 27 1996
4,9	10 minute presentations of each project, followed by discussions.	As scheduled by faculty advisor.
5	Detailed block diagrams and schematic diagrams are produced and presented to the faculty advisor.	Feb. 10
6,7	Experimentation, measurements and tests are well under way. Schematic diagrams are finalized.	Feb. 12 to Feb. 24
8,9	Printed circuit board is designed and etched. All mechanical work on chassis, racks and enclosures is finished.	Feb. 26 to Mar. 8
10,11	PCB is populated with parts and is tested. System is tuned to specifications.	Mar. 18 to Mar. 29
12,13	All tests and measurements are finished, all data collected, documentation is partially edited.	Apr. 1 to Apr. 12
14	Prototype is working, according to the specifications. Drawings are plotted, technical report is edited in its final form. Project is finished, working prototype and technical report are presented to the faculty advisor for evaluation and marking.	Apr. 15 to Apr. 19
15,16	Reserved for marking.	Apr. 22