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 1993

Author: PETER SZILAGYI

NEW: _*1993*_   REV.: _____

Approved: _W.Filipowich_
          Coordinator

Jan 14/93
Date

Approved: _K.P.____
          Dean

_03-01-__
Date

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_____   _____
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Total credit hours: 45

Prerequisites: N/A

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

Research as required by individual Project/Report.

The student will maintain a daily Logbook (Project Diary) as a record of progress.

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

REQUIRED RESOURCES

- College Library
- Data Books (Available in B102)
- Application Notes (Available from faculty advisor.)

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%

Functionability 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% and a **WORKING** hardware or software project.

GRADING SYSTEM

A+ . . . . 90% to 100%

A . . . . 80% to 89%

B . . . . 70% to 79%

C . . . . 55% to 69%

R . . . . REPEAT

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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, $1\frac{1}{2}$ 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 beginning any project, a candidate must prepare a one-page summary (typed) of his/hers proposed project and that summary must be approved.

WEEK	ACTIVITY	NOTE
1	Suggested projects and procedures explained.	
2	Selection of projects is complete.	
3	Students hand in written proposal, including the system block diagram, and requirement specifications.	
4	10 minute presentations of each project, followed by discussions.	
5	Detailed block diagrams and schematic diagrams are produced and presented to the faculty advisor, together with the list of major components to be ordered.	
6,7	Experimentation, measurements and tests are well under way. Schematic diagrams are finalized.	
8,9	Printed circuit board is designed and etched. All mechanical work on chassis, racks and enclosures is finished.	
10,11	PCB is populated with parts and is tested. System is tuned to specifications.	
12,13	All tests and measurements are finished, all data collected, documentation is partially edited.	
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 is presented to the faculty advisor for evaluation and marking.	
15	X grade applications are accepted, IF JUSTIFIED, at the faculty advisers discretion.	X grades are not part of "students rights"