

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE OUTLINE: RESEARCH REPORT  
CODE NO.: ELN 319 - 3  
PROGRAM: ELECTRONIC TECHNOLOGY  
SEMESTER: SIX  
DATE: JANUARY 1992  
PREVIOUS  
OUTLINE DATED: JANUARY 1991  
AUTHOR: W. FILIPOWICH

NEW: \_\_\_\_\_ REV.: X

APPROVED:

\_\_\_\_\_  
COORDINATOR

\_\_\_\_\_  
DATE

*L. P. Cloutier*  
\_\_\_\_\_  
DEAN

*92/01/10*  
\_\_\_\_\_  
DATE

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TOTAL CREDIT HOURS: 45

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PREREQUISITE(S):

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PHILOSOPHY/GOALS:

THE RESEARCH 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:

- 1) RESEARCH AND PREPARE A DETAILED TECHNICAL REPORT.
- 2) DEMONSTRATE GOOD PROJECT MANAGEMENT SKILLS.
- 3) DESIGN, BUILD AND DEMONSTRATE A TECHNICAL PROJECT (IF APPLICABLE).

TOPICS TO BE COVERED:

AS APPROVED BY FACULTY ADVISOR.

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LEARNING ACTIVITIES

REQUIRED RESOURCES

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

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METHOD(S) 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 PROJECT.

THE GRADING SYSTEM USED WILL BE AS FOLLOWS:

A+ = 90 - 100%    A = 80 - 89%    B = 70 - 79%    C = 55 - 69%

R REPEAT

REQUIRED STUDENT RESOURCES:

WILL VARY DEPENDING ON INDIVIDUAL PROJECTS.

ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY BOOK SECTION:

SPECIAL NOTES:

STUDENTS WILL BE GIVEN A SCHEDULE AND FURTHER DETAILS CONCERNING FORMATS FOR THE FINAL REPORT AND LOGBOOK AFTER GROUP HAS FIRST MEETING.

IMPORTANT DATES AND DEADLINES

NOTE: UNLESS OTHERWISE NOTED DEADLINES ARE AT 10:30 AM ON SPECIFIED DATE.

FORMAL MEETINGS WILL BE HELD IN THE INSTRUCTOR'S OFFICE IN B101 FROM 8:30 AM TO 10:00 AM ON NOTED DATES. THE INSTRUCTOR WILL ASSIGN SPECIFIC TIMES DURING THIS PERIOD FOR INDIVIDUAL STUDENTS. STUDENTS SHOULD BE PRESENT IN B102 BY 8:30 AM ON THE MORNING OF ANY FORMAL MEETING. IF A STUDENT CANNOT ATTEND A MEETING HE/SHE MUST NOTIFY THE INSTRUCTOR IN ADVANCE AND JUSTIFY THE ABSENCE. MARKS WILL BE DEDUCTED FOR LATENESS, ABSENCES AND UNPROFESSIONAL CONDUCT.

DEDUCTIONS:

DEDUCTIONS ARE IN PERCENT OF 100% FINAL MARK.

LATE SUBMISSIONS: FINAL REPORT 2% PER DAY  
OTHER 1% PER DAY

- JAN. 10/92 GENERAL DISCUSSION OF PROJECTS AND COURSE.
- JAN. 10/92 PROJECT TOPICS FINALIZED.
- JAN. 10/92 SUBMISSION OF MATERIAL LIST (ALL MAJOR AND LONG TERM DELIVERY ITEMS TO BE INCLUDED).  
SUBMISSION OF INITIAL PROJECT SCHEDULE.
- JAN. 24/92 SUBMISSION OF FUNCTIONAL SPECIFICATIONS.  
SUBMISSION OF WORK SCHEDULE.
- JAN. 31/92 FORMAL MEETING TO DISCUSS PROGRESS.
- FEB. 7/92 SUBMISSION OF DESIGN SPECIFICATIONS.
- FEB. 21/92 FORMAL MEETING TO DISCUSS PROGRESS.
- MAR. 6/92 FORMAL MEETING TO DISCUSS PROGRESS AND TO INSPECT PROJECT.
- MAR. 20/92 FORMAL MEETING TO DISCUSS PROGRESS.
- APR. 3/92 SUBSTANTIAL COMPLETION, COMMISSIONING BEGINS.  
FORMAL MEETING TO DISCUSS PROGRESS AND TO INSPECT PROJECT (ie. DEMONSTRATE SUBSTANTIAL COMPLETION).
- APR. 10/92 COMMISSIONING COMPLETE, EVALUATION OF PROJECT FUNCTIONABILITY WILL BEGIN AT 8:45 AM. ALL STUDENTS ARE TO HAVE THEIR PROJECTS IN B102 AT THIS TIME.
- APR. 20/92 PROJECT COMPLETION DATE. FINAL REPORT TO BE SUBMITTED ON OR BEFORE THIS DATE.
- APR. 24/92 NO SUBMISSIONS ACCEPTED AFTER 4:00 PM TODAY.

FINAL REPORT FORMAT

FINAL REPORT:

THE FINAL REPORT IS TO INCLUDE BUT IS NOT NECESSARILY LIMITED TO

- COVERING LETTER
- TITLE PAGE
- TABLE OF CONTENTS
- LIST OF DRAWINGS
- SUMMARY
- INTRODUCTION
- FUNCTIONAL SPECIFICATIONS
- DESIGN SPECIFICATIONS AND ADDENDA
- COMMISSIONING PROCEDURES AND RESULTS
- CONCLUSIONS AND RECOMMENDATIONS
- APPENDICES
- BIBLIOGRAPHY AND ACKNOWLEDGEMENTS

COVERING LETTER:

LETTER TO INSTRUCTOR FROM STUDENT COVERING SUBMISSION OF COMPLETED PROJECT.

SUMMARY:

BRIEF OVERVIEW OF PROJECT WITH GENERAL COMMENTS SHOWING FINAL RESULTS.

INTRODUCTION:

LEAD IN TO REPORT. COMMENT ON CHOICE OF TOPIC (ie. WAS PROJECT DONE ON REQUEST OF PARTICULAR INSTRUCTOR OR COMPANY), NEED OR PURPOSE FOR PROJECT, STRUCTURE OF REPORT, etc.

FUNCTIONAL SPECIFICATION:

BEGIN WITH SCOPE OF WORK. EXACTLY WHAT DOES THE PROJECT ENCOMPASS AND WHAT ITEMS (IF ANY) ARE BEYOND THE 'SCOPE OF WORK' OF THE PROJECT. LIST THE FUNCTIONS OF THE PROJECT. CONCLUDE WITH FURTHER DETAILS ON EACH PARTICULAR FUNCTION. THIS SHOULD BE GENERAL DETAILS OF SPECIFIC FUNCTIONS NOT SPECIFIC HARDWARE AND SOFTWARE DETAILS.

CONSTRUCTION SPECIFICATIONS SUCH AS CONSTRUCTION DRAWINGS,  
MATERIAL LISTS, HARDWARE AND SOFTWARE SYSTEMS TO BE USED  
(PROGRAMS CAN BE COMPLETED LATER AND DETAILED IN APPENDIX)

**COMMISSIONING PROCEDURES AND RESULTS:**

REPORT ON HOW PROJECT WAS TESTED AND PUT INTO OPERATION. DISCUSS  
PROBLEMS ENCOUNTERED AND HOW THEY WERE SOLVED.

**CONCLUSIONS AND RECOMMENDATIONS:**

DISCUSS HOW WELL THE PROJECT PERFORMED COMPARED TO ORIGINAL  
FUNCTIONAL SPECIFICATIONS. DID PROJECT LIVE UP TO ORIGINAL  
EXPECTATIONS, IF NOT WHY (OR DID PROJECT PERFORM BETTER THAN  
EXPECTED AND IF SO WHY)? ON REFLECTION COULD ANYTHING HAVE BEEN  
IMPROVED, HOW?

**APPENDICES:**

PROJECT LEGACY - SUMMARY OF DIARY.

DIARY - HAND IN DIARY OR COPY

INITIAL PROJECT SCHEDULE (THE STUDENT IS TO PREPARE A DESIGN AND  
CONSTRUCTION SCHEDULE WITHIN THE GUIDELINES OF THE COURSE  
DEADLINES. THE SCHEDULE SHOULD BE DETAILED AND SPECIFIC. 10%  
OF THE COURSE MARKS ARE BASED ON MANAGEMENT SKILLS, PART OF  
THAT MARK WILL BE BASED ON ADHERENCE TO THIS SCHEDULE.)

ACTUAL SCHEDULE ACHIEVED (THE STUDENT IS TO COMPARE THE INITIAL  
PROJECT SCHEDULE WITH ACTUAL DATES ACHIEVED.)

SOFTWARE LISTINGS

ANY EQUIPMENT SPECIFICATIONS NOT IN DESIGN SPECIFICATIONS

NOTES

1. REPORT LENGTH: < 2000 WORDS PROBABLY TOO SHORT.  
> 5000 WORDS PROBABLY TOO LONG.  
THIS IS A GUIDELINE ONLY, USE YOUR OWN JUDGEMENT. REMEMBER QUALITY IS BETTER THAN QUANTITY.
2. SCHEDULE CHANGES: SCHEDULES MAY BE CHANGED AT STUDENTS' REQUEST HOWEVER IF WORK SUBMITTED IS NOT SUFFICIENT TO JUSTIFY EXTENSION MARKS WILL BE DEDUCTED. A WRITTEN REQUEST MUST BE SUBMITTED BEFORE A SCHEDULE CHANGE WILL BE CONSIDERED.
3. SPEC. CHANGES: ANY CHANGES TO PROJECT SPECIFICATIONS MUST BE APPROVED BY FACULTY ADVISOR. A WRITTEN CHANGE ORDER MUST BE SUBMITTED.
4. FORMAL MEETINGS: DURING THE COURSE OF THIS PROJECT STUDENTS WILL BE MARKED ON THEIR MANAGEMENT SKILLS. THIS INCLUDES HOW THE STUDENT CONDUCTS HIM/HERSELF DURING MEETINGS. STUDENTS ARE EXPECTED TO CONDUCT THEMSELVES AS TECHNOLOGISTS WOULD IN A WORKING ENVIRONMENT.
5. DAILY LOG: STUDENTS WILL KEEP A LOG OF ALL WORK DONE TOWARD COMPLETION OF THEIR PROJECT. THE LOG IS TO BE A BOUND NOTEBOOK (SO PAGES CANNOT BE INSERTED OR WILL BE NOTICED IF REMOVED). ENTRIES WILL BE MADE IN INK AND DATED AS WORK IS DONE.
6. COST: PROJECT COSTS SHOULD BE KEPT TO A MINIMUM. AS A GUIDELINE COSTS TO COLLEGE SHOULD BE LESS THAN \$100.00 (EXCEPTIONS MAY BE MADE WHERE A PROJECT WILL BE LEFT WITH THE COLLEGE AND WILL BENEFIT THE COLLEGE).
7. TYPE/WRITTEN: ALL SUBMISSIONS EXCEPT THE LOGBOOK ARE TO BE TYPED (OR COMPUTER PRINTED).