SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE:	INDUSTRIAL ORGANIZATION
CODE NO. :	**IND 1000**　　　　　　　**SEMESTER:** 4
PROGRAM:	Electrical/Electronics/Instrumentation
AUTHOR:	A. Gooderham, 759-2554 ext. 581
DATE:	Jan. 2003　　**PREVIOUS OUTLINE DATED:** Jan. 2002
APPROVED:	

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　　　　　　　　　　　　　DEAN　　　　　　　　　　**DATE**

TOTAL CREDITS: 4

PREREQUISITE(S):

HOURS/WEEK:

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I.   COURSE DESCRIPTION:

An introduction to the fundamentals of Statistical Quality Control (SQC). Emphasis is placed on the fundamentals of statistics where the use of graphs and charts allows for a more practical approach to Quality Management.   Skills in analysis and evaluation will be developed through the use of these standard techniques, as well as an appreciation for the costs involved in Q.M. and the benefits of Total Quality Management.   The analysis tools as well as an insight into today's business climate and the need for motivation provides an on-going approach to Quality Assurance in Design/Development, Production, Installation and Servicing. Augmenting these techniques is an analysis of, and practical experience with, Project Scheduling, Timelines and Critical Path.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1.   Produce examples of Quality Control approaches, philosophies and implications

    Potential Elements of the Performance:
    - Complete the PPA Assignment
    - Complete class discussions and case studies
    - Complete Test #1

2.   Analyse data using statistical methods

    Potential Elements of the Performance:
    - Produce charts and graphs, the SPC Assignment
    - Complete test #2

3.   Produce examples of Costs of Quality and the Motivation Factors required

    Potential Elements of the Performance:
    - Complete the Motivation Assignment
    - Complete the Cost of Quality Quiz
    - Complete the Cost of Quality/Motivation Test

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    4.   Produce scheduling documentation using computer simulation software.

        <u>Potential Elements of the Performance</u>:

- Complete the Primavera Assignment
- Complete test questions relating to scheduling

III.   TOPICS:

1. Introduction to Quality, TQM
2. Potential Problem Analysis
3. Management Styles (Japanese, Saturn)
4. Quality Improvement Techniques, Deming's 14 Points
5. Fundamentals of Statistics
6. Control Charts for Variables
7. Additional SPC Techniques for Variables
8. Fundamentals of Probability
9. Control Charts for Attributes
10. Lot-By-Lot Acceptance Sampling by Attributes
11. Acceptance Sampling Plan Systems
12. Motivation
13. Quality Costs
14. The ISO 9001/CSA Q9001 Standards
15. Primavera Project Planning and Critical Path

IV.   REQUIRED RESOURCES/TEXTS/MATERIALS:

Quality Control, 6th ed., by Besterfield

V.   EVALUATION PROCESS/GRADING SYSTEM:

PPA Assignment	5 %
Test #1	20 %
SPC Assignment	5 %
Test #2	40 %
Primavera Assign.	10%
Cost/Motivation Test	20 %
TOTAL	**100%**

The following semester grades will be assigned to students in postsecondary courses:

Grade	Definition	Grade Point Equivalent
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see *Policies & Procedures Manual – Deferred Grades and Make-up*).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

VI.   SPECIAL NOTES:

Special Needs:
If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

Retention of course outlines:
It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:
Students should refer to the definition of "academic dishonesty" in *Student Rights and Responsibilities*. Students who engage in "academic dishonesty" will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:
The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII.   PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII.   DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.