



SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: COST CONTROL AND EFFICIENCY
CODE NO.: PPE360-3 SEMESTER: IV and VI
PROGRAM: PULP AND PAPER ENGINEERING TECHNOLOGY
AUTHOR: KEVIN PEVATO
DATE: APRIL 1993 PREVIOUS OUTLINE DATED: APRIL 1991

APPROVED:


DEAN, SCHOOL OF SCIENCES &
NATURAL RESOURCES


DATE

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TOTAL CREDIT HOURS: 4 5

PREREQUISITE(S): None

1. PHILOSOPHY/GOALS:

This course is designed to prepare the pulp and paper technology student for supervisory and management positions. The importance of formally studying cost control methods and strategies along with efficiency evaluations can be viewed in the light of current industry issues. One of the main objectives of our industry is to control and reduce costs while increasing productivity and efficiency (Working smarter not harder).

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will be able to:

- ^^ 1. Define budgeting and explain difference between planning and control.
2. List advantages of budgeting.
 3. Plan and prepare personal monthly budget.
 4. Control monthly budget and report results for the month.
 5. Define fixed costs, variable costs, and profit.
 6. Construct and interpret a Linear Break-even Chart.
 7. Explain the importance of economizing and cost reduction in a mill's production setting as it relates to machinery, materials and manpower.
 8. Prepare a cause and effect diagram (fishbone diagram).
 9. Calculate paper machine production rates and operating efficiencies.
 10. List and describe factors affecting machine efficiency.
 11. Describe concepts used in Lost Time Analysis.

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III. TOPICS TO BE COVERED:

A. Profit Planning/Cost Control - Budgets

Definition of Budgeting
Difference between Planning and Control
Advantages of Budgeting
Personal Budgets
The Operating Budget
How to Construct a Budget
The Matter of Human Relations
Tips on Controlling Costs
Major Areas of Cost Control: The Big Four
Cost Reports: Steps for getting out the message
What to do when costs go out of control
How to set up a permanent cost reduction program
Where to look for cost reduction opportunities

B. Break-even Analysis

Cost and Competitiveness
Fixed Costs/Variable Costs/Profits
Breakeven Comparisons
Breakeven Charts

C. Production Economy

Economizing
Value Improvement Programs
False Economy
Minimum Cost Operations
Vigilance versus Errors
Cause and Effect Analysis

D. The Economics of Paper Machine Operation - Chapter 21 (Smook)

Two Methods to Calculate Paper Machine Production Rate
Calculation of Operating Efficiency
Factors Affecting Machine Efficiency
Lost Time Analysis
Grade Mix vs. Profitability

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IV. LEARNING ACTIVITIES:

The Engineering Economics text provides questions, exercises, problems, and cases. These activities will be assigned frequently to reinforce the learning concepts in each section. Your instructor will assign the learning activities throughout the course. It should be noted that the text will be used extensively.

V. EVALUATION METHODS:

The student's performance in this course will be assessed on the basis of his or her performance on a mid-term and final exam plus a group project. These are weighted as follows:

Group Project	20%
Individual Budget Project	10%
Mid-term Cost Control	35%
Final Efficiency	<u>35%</u>
Total	100%

The final grade for the course will be awarded on the following percentage basis:

A+	=	90 - 100%
A	=	80 - 89%
B	=	70 - 79%
C	=	60 - 69%
R	=	<60%

Students having a final standing of R and who have a course average of at least 55% may be permitted to write a supplemental exam. Class attendance will be weighted heavily in any rewrite decision.

VI. REQUIRED STUDENT RESOURCES:

Engineering Economics - First Canadian Edition
Authors: Riggs, Rentz, Kahl, West.

Handbook for Pulp and Paper Technologists
Author: G.A. Smook

* Both books are available in College Bookstore.

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**VII. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY
BOOK SECTION:**

Due to the specialized nature of this course, any additional references will be with respect to current cost practices and projects found in the trade periodicals (Pulp and Paper Canada, TAPPI Journal, Pulp and Paper, etc.). Specific cost theory to supplement course text and lecture notes can be found in the Business and Accounting section (HF) of the library.

VIII. SPECIAL NOTES:

Students with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.