

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

COURSE OUTLINE

Course Title: INDUSTRIAL ORGANIZATION

Code No.: IND 100 - 3

Program: Technology Programs

Semester:

Date: \_\_\_\_\_ 3 ^ ^ W ^ ^ F » ^ \ ^ H \

Author: \_\_\_\_\_ Bill Adolph

New:

Revision:



APPROVED:

Chairperson J

Date

## PHILOSOPHY/GOALS

The traditional management styles and structures of North American industries are being challenged and tested by the styles of more successful companies - mostly off-shore in Korea and Japan. Philosophies of Management in those countries have been strongly influenced by tradition and by the works of Dr. William E. Deming, a management consultant who was entrusted with the reconstruction of the Japanese economy after the Second World War. While it is impossible that Japanese cultural tradition can be transferred onto the production lines of North America, the goals can be and some industries, have been somewhat successful.

Materials presented in this course are intended to:

1. Identify and describe the characteristics of the North American style of business.
2. Identify several alternate styles including the Japanese and the Mondragon Co-operative styles as well as variations between.
3. Introduce the concept of QUALITY MANAGEMENT , through the C.S.A. Standards that support the application of the philosophy of QUALITY in Canada, and through Statistical Quality Control techniques.
4. Use several simple techniques to illustrate improvement in productivity.
5. Assist the student in understanding his own behavioral style and that of others.

## Special Notes

1. In order to respond to the special needs of the class and to improve and make current the materials of Quality Management, the Instructor reserves the right to depart from the the course outline where deemed necessary.
2. Attendance at scheduled classes is essential. It is important that students make full attendance a priority , because for a good portion of the course there is no text to catch up with,

## METHOD OF ASSESMENT

The course is divided into three topics as follows

Styles and Structures	35%	2 tests maximum
Productivity and Quality	50%	3 tests maximum
Motivation	15%	1 test

Tests will be a combination of True/False and Essay type, and will be announced in the classroom at least one week in advance.

Assesment con't

A letter grade will be assigned as follows

A+	90	-	100%
A	80	-	89%
B	65	-	79%
C	55	-	64%
R	Less than 55 %		

#### TEXTBOOKS

There is no textbook that completely covers the course. The textbook chosen for QUAILTY MANAGEMENT is:

    Quailty Control, Third Edition  
    . Dale H. Besterfield  
    Prentice Hall

All other learning materials will be provided.

#### CALENDAR BRIEF

Overview of organizational styles and structures, power and conflict, ownership and finance, productivity , critical path, statistical quality control, quality standards, continuous improvement, industrial alienation, motivation and behavior.

## TOPIC 1      STYLES AND STRUCTURES

Japan, as a powerful industrial entity, has taken its place as leader over all other industrial powers mainly because of the methods that it has employed to attain control over its manufacturing methods. The Japanese style of management, based on the traditions of family and community group, appears to be more successful in gaining the participative approval of its workers. This is in stark contrast to the John Wayne type of individualism that is still characteristic of the North American model of doing business. The topic starts with an in-basket game that attempts to illustrate the mood and tone of the management style typical of that of Sault Ste. Marie and industrialized Ontario. Subsequent learning activities show how the rough and ready style encourages conflict and adversarial postures.

### Learning Materials

Northern Machines Inc.  
The Final Offer  
A Yen For Harmony  
The Jamestown Story  
Mondragon  
We Can Work It Out

### General Objectives

1. Recognize the basic units of an organization and their interrelationships
2. Comprehend and apply a problem solving model in an industrial organizational setting.
3. Appreciate the complexity of countervailing forces and the need for balance of power in organizations.
4. Appreciate that there are characteristic and fundamentally different ways of organizing and running a business, in philosophy, style and structure.

### Specific objectives

1. Respond to the questions asked in the Supervisory -In-Basket Game, by applying the steps involved in a proper problem solving technique.
2. Identify the basic currencies of power and be able to relate them to a real-life setting
3. List the advantages and disadvantages of the common forms of ownership of organizations.

S.O's cont'd

4. Explain the nature of worker co-ops as an alternate business form and how it varies from the more traditional forms .
5. Describe the features of Japanese management styles and compare to typical North American styles and to a Modragon style co-op style.
6. Participate in a consensus decision-making process and record and share your observations and feelings about the process.
7. Identify and describe the characteristics of the 3 major of people in a. ordinary business organization.

#### TOPIC 2 PRODUCTIVITY AND QUALITY MANAGEMENT

North American Industry must be prepared to compete globally. Free trade with the Americans is upon us and many of us feel that the exodus of jobs will not diminish until we have overthrown our parochial attitudes about production and work. We must accept the challenge head on using technology to improve our productivity and decide to accept excellence as our Quality goal. As a competing nation we must balance our needs against our greeds and still satisfy our obligations to provide people with jobs and dignity.

Topical breakdown

##### 1. Productivity

- The Critical Path Method
- Operation and Flow Process Charts
- Simo Charts

##### 2. Quality Management Overview

- Cost of Quality
- CSA Z299 Standards of Quality Management
- The Concept of Total Quality
- Basic statistics
- Statistical process Control
- The Quality Management Institute
- Policies and procedures for Quality
- The value of operating procedures

#### SPECIFIC OBJECTIVES

At the conclusion of this topic the student will be able to:

1. Explain the need for quality improvement through examination of the costs in a company that relate directly to lack of quality.
2. Differentiate between the 4 levels of a quality program as delineated by the CSA Z299 standards for quality programs.

Specific Objectives Topic 2 cont'd

3. List and describe the responsibilities of the following departments with respect to Quality.

Marketing  
Product Engineering  
Purchasing  
Manufacturing Engineering  
Manufacturing  
Packaging and Shipping  
Product Service  
Quality Assurance

SPC

3. Explain the importance of Statistical Process Control.
4. List the limitations of 100% inspection.
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5. List the shortcomings of go-nogo inspection methods.
6. Define "Quality".
7. Define what "Process" means with respect to quality in manufacturing .
8. State the Pareto Principle.
9. Draw a basic Cause and Effect diagram.
10. Provided with appropriate data, perform a Pareto analysis to identify the "vital few".
11. Construct a histogram using recommended procedures for provided data.
- 12 Explain the meaning of the sigma limits.
13. Explain the difference between specification limits and process spread limits.
14. Explain the difference between a normal distribution and a binomial distribution.
15. State the meaning of  $P(A \text{ or } B)$  and  $P(A \text{ and } B)$ .
16. Explain **how** to determine the cp index .
17. Memorize and apply the the procedure for determining process capability by the use of probability paper.
18. Explain the relationship between normal curves produced from actual process data compared to the distribution of averages from the small samples drawn from the same population.

TOPIC #3 - INDUSTRIAL MOTIVATION/ALIENATION

What can we learn from the behaviorists like Maslow and McGregor, Hertzberg, and Massey? How do our needs relate to the needs of the corporation and the merging styles in North America? This section identifies features of our makeup and how we can be motivated to perform better in our jobs. Also discussed will be the nature and characteristics of industrial alienation and the way that energy and creativity are damaged. Finally, a study of the effect of monetary rewards and power on productivity. A study of the video film "Its Not Just The Money", will complete the course of study.

General Objectives;

1. Appreciate and understand the major importance of motivation in a personal and organizational context.
2. Recognize the contributions of behavioural scientists, over the past 30-40 years, to our understanding of the nature of motivation in the work place and the consequences when not nurtured.

Specific Objectives:

1. Define each and describe the interrelationship of behaviour, motives and goals.
2. List the steps in Maslow's Hierarchy of Needs.
3. Describe Hertzberg<sup>1</sup>'s Motivation - Hygiene Factors.
4. Explain the relationship of Maslow and Hertzberg to a motivation situation.
5. Describe the characteristics of McGregor's X and Y styles of managing/motivating people.
6. Discuss in detail the question "Does Money Motivate"?
7. Discuss the significance of age and value sets in managers/supervisors approach to motivating employees.