

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

COURSE OUTLINE

Course Title: MANUFACTURING PROCESSES

Code No,: MCH 244

Program: MECHANICAL TECHNICIAN

Semester: TWO

Date: FEBRUARY 1987

Author GORD IRVINE

New: X Revision

APPROVED: C<sup>^</sup>jT(L<r<sup>^^</sup> ^7-0g-g ^  
Chairpers    o    sC)    Date

CALENDAR DESCRIPTION

MANUFACTURING PROCESSES

MCH 244

Course Name

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**PHILOSOPHY/GOALS:**

Upon completion of this course, the student should have a basic understanding of various manufacturing processes. The intention is to provide the student with sufficient background in manufacturing processes so that he/she may expand their acquired skills to various manufacturing sectors.

**METHOD OF ASSESSMENT (GRADING METHOD):**

Theory/Tests	55%
Project Assignment	35%
Attendance/Initiative/Attitude	10%

**TEXTBOOK(S):**

Modern Metalworking, c. 1985, John R. Walker, Goodheart-Wilcox Publisher

**REFERENCE TEXTS:**

Material and Processes in Manufacturing, Sixth Edition, DeGarmo, Black, Koshier, McMillan Publishing Co.

**OBJECTIVES:**

To acquaint the students with the various processes outlined and test their ability to recognize these processes theoretically. A demonstrated ability to do extensive research about an assigned topic is also required to successfully complete this course.

TOPIC NO.	PERIODS	TOPIC DESCRIPTION	REFERENCE
		<u>Basic Steel Making Process</u>	Handouts Films - ASC Motion Arteries of Steel Continuous Casting of Beam Blank
		<u>Hot Metal Working Processes</u> Types Description of Methods Cost Factors	Lecture Self Tests Text Ch. 17 Text Ch. 29
		<u>Cold Metal Working Processes</u> Types Description of Methods Cost Factors	Lecture Self Tests
		Foundry Processes Types Methods Patterns and Pattern Making Cores and Core Making Furnaces Cost Factors	Self Tests Text Ch. 13 Text Ch. 14
		Power Metallurgy Methods of Production Parts Production Advantages & Disadvantages	Lecture Self Tests Text Ch. 30
		Non Metallic Materials Manufacture of Plastics & Thermoplastics Types of Plastics Additive Agents Machining Plastics Other Materials	Lectures Self Tests
	12	<u>Shop Organization</u> Cost Comparison Estimating Weight Calculations Quality and Quantity Planning	Lectures Self Tests Class Participation