

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

COURSE OUTLINE

Course Title: JIG & TOOL DESIGN

Code No -: MCH 239-3

Program MACHINE SHOP

Semester: THREE

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New Revision

APPROVED:

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Chairperson

Date

CALENDAR DESCRIPTION

TOOL & JIG DESIGN

MCH 239-3

Course Name

Course Number

COURSE OUTLINE

Economics of tooling
Operation sequencing
Machine tool selection
Methods of clamping and location

Design procedures and relationships
Drill templates and jigs
Mill fixtures
Introduction to press tools

Utilization of standard parts
Methods of foolproofing
Material selection
Tolerancing with respect to gauging and tooling

REFERENCES

Production Engineering and Jig & Tool Design (Jones)
Production Tooling Equipment (Parsons)
Jig & Fixture Design (A.S.T.E.)
Tool Design (Jeffries)
Tool Engineers Handbook (A.S.T.E.)
Manufacturers' Publications

TEXT

Tool Design (Donaldson)

GENERAL OBJECTIVES

To make the student aware of the purpose of Jig & Tool Design.

To develop in the student, an understanding of the need to be familiar with available plant.

To have the student able to define and name the various types of tooling equipment.

To have the student demonstrate ability to constrain a body relative to another fixed body by removing the six degrees of freedom.

To develop in the student, an understanding of the fundamental principles embodied in tooling equipment.

To introduce the student to the: Definition, synthesis, analysis, evaluation of a problem.

To have the student able to produce varying types of tool drawings