SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MECHANICAL DRAWING & DESIGN

Code No.: DRF 215

Program: MECHANICAL DRAFTING TECHNICIAN

Semester: FOUR

Date: JANUARY 1987

Author: C. RISING

New: _____ Revision: X

APPROVED: J.P. Drozietto
Chairperson Date

CALENDAR DESCRIPTION

MECHANICAL DRAWING & DESIGN	DRF 215
Course Name	Course Number

PHILOSOPHY/GOALS:

To develop in the student an ability to:

- Read and check drawings, including an analysis of applied tolerances. Determine by calculation the stresses induced by interference fits and their effect.
- Understand the basic principles of lubrication and its importance. Relate to bearing terminology, the use of bearings and calculations relative to basic bearing design.
- Design shafts for various applications.
- Analyse and produce drawings of the motion obtained by variouis mechanisms.
- Work from given specifications to solve a simple mechanical design problem.

METHOD OF ASSESSMENT (GRADING METHOD):

"A"
"B"
"C"
"I"

Grading will be on logical solutions, layout, sketches, diagrams, drawings, general tidiness of presentation, and time factor.

TESTS:

a) There will be a minimum of one week's notice for tests.

b) Tests will be held at intervals throughout the semester.

c) In the event of a student being absent for a test, he/she will be given an opportunity to write a test of similar content at a time suitable to the teacher.

d) If a studernt fails a test an opportunity will be given to that student to write a make-up test at a time designated by the teacher.

e) A 90% attendance record is required in order for a student to be eligible to write a make-up test.

f) The maximum grade that a student will be given for a make-up test will be a "C".

ASSIGNMENTS:

a) All assignments must be handed in for marking on the specified date and time.

b) Grades for assignments handed in late will be reduced according to the degree of lateness.

c) Late assignments will not be accepted if they are submitted after those that were submitted on time have been marked.

d) The marking of assignments may be on a random basis.

DISTRIBUTION OF MARKS:

Tests	70%
Assignments	20%
Attitude	10%

TEXTBOOK:

Engineering Drawing & Design - Jensen & Helsel

REFERENCE TESTS:

Mechanical Engineering Handbook - Kent
Machinery Handbook
C.S.A. Drawing Standards
Mechanisms - Foures & Keawin
Worms & Worm Gears - Boston Gear
Principles of Mechanical Design - Parr
Manufacturers' Catalogs
Bearing Technical Journal

TOPICS:

Checking & Reading Drawings
Tolerances - Fits - Limits - Stacking
Plain Bearings - Lubrication, etc.
Shaft Design
Simplification of Design
Mechanisms
Design Project