

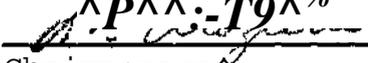
SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY  
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MACHINE DESIGN  
Code No. MCH 306  
Program MECHANICAL TECHNOLOGY  
Semester: SIX  
Date: JANUARY 1987  
Author: C.\_RJiJ\_N\_G.

New Revision: X

APPROVED

*APPA-T9A%*  
  
Chairperson

Date

**CALENDAR DESCRIPTION**

<u>MACHINE DESIGN</u>	<u>MCH 306</u>
Course Name	Course Number

**PHILOSOPHY/GOALS:**

To have the student conversant with, and able to solve fundamental problems of design with particular respect to special structural members, screw threads, fasteners, gears, clutches, brakes, couplings, joints, flexible elements and springs.

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

"A"	Grading will be based on logical solutions, layout, sketches, diagrams and general tidiness of presentation.
"B"	
"C"	
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**TESTS:**

- There will be a minimum of one week's notice for tests.
- Tests will be held at intervals throughout the semester.
- 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 student 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) An 80% 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%

TEXTBOOKS:

Mechanical Engineering Design (Shigley) - McGraw Hill

REFERENCE TEXTS:

Gear Handbook (Dudley) - McGraw Hill  
Design of Machine Elements (Spotts) - Prentice Hall  
Design of Machine Elements (Faires) - McMillan  
Machine Design (Myatt) - McGraw Hill

TOPICS

Mohrs Circle of Stress  
Strain Energy  
Castigliano  
Curved Beams  
Screw Threads (fasteners)  
Gears  
Clutches, Brakes, Couplings  
Belt Drives  
Springs

C. Rising  
January, 1987

COURSE OUTLINE REIERENCfcs

NCH 306

CALL NUMBER/  
PURCHASE ORDER NO,

BIQLIOGRAPIUC INFORMATION

REF TJ 184 .D78

Dudley, Darle W. Gear handbook: the design, manufacture and application of gears. Rework, McGraw-Hill, 1962. \_\_\_\_\_

TJ 230 .F3 1965

Faires, Virgin Moring. Design of machine elements New York, Macmillan, 19F5"T

P.O.#548803

Myatt, Donald J. Machine design: an introductory text. New York, McGraw-Hill! 1962. \_\_\_\_\_

P.O.#548798

Spotts, Merhyle Franklin. Design of machine elements. 6th ed. Englewood Cliffs, Prentice-Hall, 1985