COURSE NUMBER & TITLE: MCHT 1610-61 MACHINE TOOL TECHNOLOGY I

SEMESTER/YEAR: Fall 2006

LECTURE HOURS: 1 LABORATORY HOURS: 2 CREDITS: 2

CLASS TIME: 6:00 p.m. – 9:00 p.m. MW
8/28/06-10/18/06

ROOM: WT 142

INSTRUCTOR’S NAME: James Quigley

INSTRUCTOR’S CONTACT INFORMATION:
Office Location: WT 134
Office Phone: 268-2508
Email: jquigley@caspercollege.edu

OFFICE HOURS: As posted and by appointment

COURSE DESCRIPTION: An introduction to machine tools and processes. Includes theory and operation of the engine lathe, bore development and conditioning, sawing, grinding, threading, layout, and machine maintenance.

STATEMENT OF PREREQUISITES: None

GOAL: Demonstrate a degree of skill in the use of basic hand and machine tools common to the metal machine tool industry.

OUTCOMES: Demonstrate in writing and shop practice a grasp of technical and related information, pertaining to basic hand tools, engine lathe, milling machines, drill press, saws, and grinders.

METHODOLOGY: Two lecture/labs per week. Demonstrations coupled with laboratory exercises will comprise the bulk of the class experience.

EVALUATION CRITERIA: Students will be evaluated on the quality of lab work completed and by two written tests. All course work and final grade will be determined by a total of test percentage as follows:

- 90% & above = A
- 80% - 89% = B
- 70% - 79% = C
- 60% - 69% = D
- 59% & below = F

Attendance Policy: Attendance is of utmost importance. Unexcused absences in the excess of 4 will result in the loss of one letter grade. Due to the consideration of the instructor and students, you must be present at the designated starting class time or you will not be allowed to participate unless prior arrangements with the instructor have been made.

REQUIRED TEXT, READINGS, MATERIALS: No text will be required at this time.
REFERENCES:
Machinery's Handbook, Industrial Press
Tool Book, Stephan Clark & Daniel Lyman, Galahad Books

CLASS POLICIES:
Last Date to Change to Audit Status: See current Casper College catalog.
Last Date to Withdraw With a W Grade: See current Casper College catalog.

STUDENT’S RIGHTS AND RESPONSIBILITIES: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

Chain of Command: If you have any problems with this class, you should first contact the instructor in order to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take your problem through the appropriate chain of command starting with the department head, then the division chair, and lastly the vice president for academic affairs.

Academic Dishonesty – Cheating and Plagiarism: Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct.

ADA Accommodations Policy: It is the policy of Casper College to provide appropriate accommodations to any student with a documented disability. If you have a need for accommodation in this course, please make an appointment to the instructor at your earliest convenience.

CALENDAR OR SCHEDULE:

TOPIC OUTLINE

WEEK: 1 – 2
Safety
Use and care of hand tools
Simple layout
Hole development
Drilling operations
Offhand drill bit grinding
Power saws

3 – 7
Measurement
Simple Math
Engine lathe: cleaning & lubrication
nomenclature of machine
setup and operation of machines
turning
grooving
grinders
HHS tool grinding and tool geometry
speeds and feeds
Mounting and dressing wheels
Surface grinding

8
Final Testing