

CASPER COLLEGE COURSE SYLLABUS

**Course Number and Title** – MCHT 1680-01      Blueprint Reading

**Semester/Year:** Fall 2015

**Lecture Hours:** 2

**Lab Hours:** 0

**Credit Hours:** 2

**Class Time:** 1:00 pm - 1:50 pm  
8/25/15- 12/17/15

**Days:** Tuesday, Thursday

**Room:** WT 142

**Instructor's Name:** Mark McCool

**Instructor's Contact**

**Office Phone:** 307-268-2508

**Email:**

**Information:** Office WT 129A

mccoolm@caspercollege.edu

**Office Hours:** Monday through Thursday: 7:00am -8:00am  
Mondays and Wednesdays: 12:30pm-1:00pm

**Course Description:** Introduces the student to the fundamentals of blueprint reading and freehand sketching as it applies to the machine shop.

**Statement of Prerequisites:** None

**Goal:** The student will obtain knowledge as how to read a print through identification of drawing scale, types and meaning of lines, and how to visualize information given on a drawing into a final product. Related information is given on determining a bill of materials, and sketching techniques and tools.

**Outcomes:** At the conclusion of this course, the student will have been introduced to various symbols, lines, and notations used in print reading for the machine trade.

**Methodology:** Two hours of lecture each week. There will be written tests and a final exam plus the requirements of drawing and homework.

**Evaluation Criteria:** Points will be totaled for all course work and the final grade will be determined by a percentage of total points as follows:

90% - above = A

89% - 80% = B

79% - 70% = C

69% - 69% = D

59% - below = F

**Required Text, Readings, and Materials:**

Current Practices for Interpreting Engineering Drawings, Edward A. Maruggi

Interpreting Engineering Drawings, Jensen

REFERENCES: Machine Shop Practice, Moltrecht, Industrial Press

Machinery's Handbook, Industrial Press

**Class Policies: Last Date to Change to Audit Status or to Withdraw with a W Grade:**

*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 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 to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Vice President for Academic Affairs.

**Academic Dishonesty:** (Cheating & 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 for more information on this topic.

**Official Means of Communication:** Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly.

**ADA Accommodations Policy:** If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, [bheuer@caspercollege.edu](mailto:bheuer@caspercollege.edu). The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

**Calendar or schedule indicating course content: *TOPIC OUTLINE***

1. Introduction to blueprints
  - Parts of a blueprint
2. Visualization of 3 view drawings
3. Understanding the various views
4. Reading the working drawing
  - Types of lines
  - Dimensions
  - Notes and symbols
5. Understanding supplementary information
  - Scaling
  - Dimensions
  - Holes, fillets, and radii
  - Fastener specifications
  - Title block and bill of materials
  - Alterations and revisions
- 6., Using special views and assembly drawings
  - Section views
  - Auxiliary views
  - Assembly drawings
  - Gears
7. Understanding materials and processes
  - Basic materials
  - Selection of materials
  - Materials on the blueprint

- Methods of fabrication
- 8. Testing on actual production blueprints
- 9. Reading of industrial blueprints
  - Die castings
  - Aluminum forgings
  - Weldments
  - Plastics
  - Numerical control
  - Metric dimensioning
- 10. Geometric dimensioning and tolerancing

***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.*