

CAD II Syllabus

Instructor contact information

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Course Description

Students will continue CAD drafting where they left off in CAD I. Work of increasing complexity will be introduced to challenge the student at their level. A mechanical drawing set will be completed including:

At least one full set of mechanical plans including a basic orthographic projection, a section view, an auxiliary view, and an isometric view, and a bill of materials. Additionally, students will make design revisions to their drawings and document those revisions.

General Objectives

Students will:

- Operate a CAD system with sufficient skill to produce working drawings for basic mechanical projects.
- Produce universally understandable drawings following basic drafting conventions.
- Visualize views of parts from the actual object or other drawn views of the object.
- Produce drawings that indicate a basic understanding of design technique.
- Measure and draw existing mechanical objects.

Course of Study

- Introduction to intermediate drafting and design techniques.
- Review CAD commands with project drawings.
- Introduction to reverse engineering and tools measurement.
- Plan a master project of mechanical work.
- Develop design parameters of the project.
- Develop sketches of project layout.
- Produce detailed CAD drawings based on sketches.

Tracked Competencies will include:

- Full conveyance of information through drawings
- Conformation to standards
- Dimensioning and accuracy
- Technique

Additional Skills and Knowledge:

- In the study of mechanical drafting, students will be required to learn mechanical principles to further their ability to design mechanical components and assemblies.
- Students will be assigned homework in the study and research of these mechanical principals, and will be tested on their knowledge in the form of written assignments, subject tests, and quizzes.

All work will be evaluated for the competencies above along with a component for Overall Quality (Neat, Clean, Clear, Omissions, On Time).

Class Materials

- To be prepared for class, students must bring a pencil and spiral bound ¼” grid graph note book to class. This notebook will be used to take notes in and also be used for sketching drawings, brainstorming and journaling.
- To save computer files for an electronic portfolio, students will need a 4 gigabyte flash drive, if desired.

Assignments:

Assignments and projects will be given with the current objective. Due dates will be given for assignments and projects once they are assigned.

Technology Student Association (TSA)

All students have the opportunity to participate in Marshfield TSA activities. TSA activities include homecoming parade, state conferences, national conference, competitive events related to technology and many other fun activities. Marshfield TSA holds regular meetings to plan activities. TSA is a student run association that promotes technology education and leadership at local, state, and national levels. Mr. Veeneman is the chapter advisor.

Contests and Conferences

Students will have opportunities to participate in technology education conference and contest events.

- Missouri TSA Distinctions Leadership Conference, Missouri S&T University, Rolla, MO
- Missouri TSA State Conference, Jefferson City, MO
- TEAM Southwest District Contest and Expo, MSU, Springfield, MO
- TEAM State Contest and Expo, Lodge of the Four Seasons, Lake Ozark, MO

Student Expectations

Students will be expected to maintain desired conduct as outlined in the school policies. Interpretation of these guidelines specific to this class includes the following. Students are expected to:

- Be in their assigned classroom seat when the tardy bell sounds.

- Work on assigned task until class ends.
- Listen to and follow instructions. Ask questions.
- Be responsible for their personal belongings and project materials.
- Respect your peers and their property. Obtain permission before handling others property.
- Respect others opinions and use non-offensive language to communicate to others.
- No food or drink allowed in the lab. Food and drink must be kept at the sink.
- Refrain from horseplay in the classroom.
- Be held responsible for the purposeful damage or theft of classroom or lab equipment.
- Await dismissal at the end of class by the instructor.
- Make up class assignments and missed due to absence.
- No phones out. I will confiscate devices without warning.
- **Have passes to be excused from class signed by the teacher prior to leaving the classroom.**

Technology Use Agreement

Students that breach the technology use agreement will not be able to work on the computers in this class. Be smart on what you are doing on the computers.

Classroom discipline procedures

1. Upon observing inappropriate behavior, the instructor will issue a verbal warning.
2. If the same behavior continues, the instructor will have a conference with the student and consult with a parent/guardian.
3. If inappropriate behavior continues or if behavior is severe a referral form will be completed and sent to the assistant principal for further action.

Note: If a student incident occurs which is a violation of school disciplinary code that warrants in school or out of school suspension on the first offense, as outlined in the student handbook, or purposely creates an unsafe situation, placing the student and/or others in an unsafe situation, the student will be referred directly to the assistant principal.

Grades

Student's grades will be accumulated from the following to determine the semester grade:

- Written assignments, subject tests and quizzes
- Daily Lab and work grades
- Individual and group projects
- Semester final exam

Written assignments, subject tests and quizzes will include worksheets, study guides, safety tests, and unit quizzes.

Daily work grades will be recorded daily at the discretion of the instructor. Students' work habits and behavior will be evaluated and recorded on a 4 point scale.

Individual and group projects will be evaluated for accuracy, completeness, and craftsmanship. Safe working habits and lab work efficiency will be evaluated as well. Grades will be recorded at the announced due date of the project.

Semester final exams will be administered at the end of each semester. Exams will be a comprehensive test of the student's learning during the semester. Scores on the final exam will serve as 10% of the student's semester grade.

Letter grades for individual written assignments, tests, quizzes, and projects will be determined using the following percentage scale:

94%-100% . . . A	73%-76%C
90%-93%A-	70%-72%C-
87%-89%B+	67%-69%D+
83%-86%B	63%-66%D
80%-82%B-	60%-62%D-
77%-79%C+	Below 60% . . .F

Make-up Work

Students who miss class are expected to make up missed class assignments and lab work. It is the student's responsibility to communicate with Mr. Zweerink before or after an absence to make up missed assignments.