Syllabus for CADD 2

2D Computer Aided Design and Drafting

(Part Two of a Two-Part class that culminates as JJC Dual Credit)

Instructors Name: Mr. Smith
Email Address: mark.smith@rc255.net
Location: Room 703

CADD 2 builds on the Drafting/CAD 1 introductory course covering the operation of a typical CAD (Computer Aided Drafting and Design) system. Content stresses additional CAD graphic commands and proper manipulation of industrial CAD software and hardware to produce engineering drawings. Emphasis is placed on finishing the development of entry-level CAD user skills with the current version of the AutoCAD software package. The course will prepare the student for the world of work, advancement to the local community college, and a four-year university.
Activities: pre-engineer prototyping drawings, model space/paper space drawings, proper pre-engineering drawing procedures and presentation, Inquiry and Help commands, create symbol libraries, section drawings, dimension drawings, isometric drawings; portfolio to present student work in an attractive and professional-looking format that will enhance prospects during a job interview; interview for an internship, and application to a community college or university.

Books, Supplies, & Supplemental Materials: 3 ring binder with pockets for handouts and note taking and thumb drive.

- Course Text: AutoCAD and its Applications-Basic/Shumaker & Madsen 25th Edition for Release 2018

Methods of Instruction:

- Lecture/Demonstration
- Lab/Computer Work

Students Learning Outcomes

- Produce scaled prints by understanding and using Model Space and Paper Space.
- Create symbol libraries.
- Produce section drawings using hatched section lines.
- Produce simple assembly drawings using block and Xref techniques.
- Produce drawings dimensioned in various styles.
- Use attributes to add verbal information to symbols.
- Produce isometric drawings using the isometric grid and system settings.

General Education Outcome:

- Accurate application of correct mathematical methods and techniques in various applications such as contextual sciences, theoretical mathematics, physics, natural sciences, and other contextual sciences.
- Understand the physical world.
- Use academic technology including finding, evaluating and utilizing appropriate information sources.
- Use critical and analytical thinking.

GRADED ASSIGNMENTS & POLICIES:
Students will correct drawings& exercise assignments according to the grading comments. Corrected work, accompanied by original work, will be resubmitted for grade adjustment. The submittal process ends at the end of the semester.

Assignments:

Evaluation & Grading Scale: (All homework, quizzes, and exams are take home.)
Grades are earned on a percentage system with points assigned to each activity. The following is an estimated schedule of work including in final percentage totals. Should items be eliminated, the same percentages stand for the adjusted point total. Grades are based on individuals' complete and correct work.

Activity/Points	Percentage	Grading Scale Percent
Quizzes (8 @ 15pts)	15%	100-92 A
Drawings & Exercises (28 @10pts.)	40%	91-83 B
Mid Written & Drawing Exam (100)	10%	82-74 C
Final Written & Drawing Exam (125)	10%	73-65 D
Portfolio-15 Bound Drawings (125pts.)	10%	64-0 F
Bonus Drawings (5 @ 10pts = 50pts.)	15%	

Classroom Polices & Procedures:
• **Homework** is assigned three weeks prior to the due date. A 2-point penalty is assessed for late work.
• **Drawings & Exercise Assignments are due three weeks from assigned due date.**
• **Exams, Quizzes, and Homework** are take home.
• **Textbook, Drawings, Projects and/or Portfolios** are used as integral learning tools.
• **Written assignments** are submitted in a typed text format only.
• **Quizzes and Tests** are created from material discussed during lectures, handouts, and reading assigned. Use handwritten or typed notes on all drawing quizzes or as direct by the instructor.

Attendance:
Consecutive attendance is crucial to the development of course materials. Students are expected to attend every day. It is the student's responsibility to obtain missed lecture notes, handouts, announcements, and assignments from classmates. Any items assigned during the missed class time are due same amount of days missed after returning.

Students submit a portfolio of completed assignments chosen from best examples of his/her work. This may include revised/improved work. A minimum of fifteen drawings shall be included. A completed portfolio includes:
a. Title page
b. Table of Contents
c. Score cover sheet
d. Suitable binding for presentation during job interviews.

Academic Honor Code and Misconduct:
MCHS Industrial Technology Department demands the highest standards of personal integrity and honesty. Examples of academic misconduct and plagiarism include a) copying the assignments (electronic files) of others or b) allowing another to copy your work (electronic files); c) cheating on assignments, quizzes, or tests; and d) other examples as described in the student handbook. All consequences of misconduct are dealt with in accordance with the student handbook.

Items needed every day for class:
- Pencil
- Textbook
- Handouts

Week: 1 & 2
GOALS: Review placing text & tables. Begin work on Pedit and Inquiry commands-add & subtract and Chapters 14 & 15 Drawing information and polylines
Chapter 14 - Polyline & Spline Editing Tools
Chapter 15 - Obtaining Drawing Information
Exercises: 4 Plate Worksheet, Student Building Areas
Drawings: Adjusting Fork, P15-12, P1513

Homework: Read Chapters 16, 17, 18, & 20 & Review Test Questions
QUIZ: Chapters 14 & 15 Test Questions and Gasket Quiz (Group Project)

Week: 3 &4
GOALS: Review drawing information and working with polylines-PEDIT and complete work on Chapters 14 & 15. Begin work on Chapters 16, 17, 18, & 20 dimensioning styles, variables, and dimensioning practices (Instructor's hand-out & worksheet)
Chapters 16 Dimensioning Standards & Styles
Chapter 17 - Linear & Angular Dimensioning
Chapter 18 - Dimensioning Features and Alternate Practices
Chapter 20 - Editing Dimensions
Exercises: Dimension Variable Worksheet, P18-12-Dimension Practice, MLeader Style Exercise
Drawings: Latch Plate-add dims, Terminal Board-add dims, Garage 2-add dims, P17-15 (P08-09)-add dims, Friction Plate, P16-17-with Dims, P17-9 with Dims
Homework: Read Chapter 28 & 29 and Review Test Questions:
Quiz: Chapters 16, 17, 18, 20 Test Questions

Week: 5 & 6
GOALS: Review dimensioning and complete work on Chapters 16, 17, 18, & 20. Begin work on creating layouts and ploting (cut over to Paper space Layouts and Viewports Layering).
Chapters 28 & 29 working with layouts and plotting-begin Paper space Layouts and viewport layering.
Chapter 28 – Layout Setup
Chapter 29 – Plotting Layouts
Exercises: eScale Exercise 03, eScale Exercise 04
Drawings: Outline for TBAL&P-PS
Homework: Read Chapter 23 and Test Questions:
QUIZ: Chapters 28 & 29 Test Questions

Week 7 & 8
GOALS: Review paper space follow up PowerPoint for working with Layouts and complete work on chapters 28 & 29. Spend the week completing dimensioned drawings and exercises.
Drawings: B2-3, B2-5, B2-9, B3-1A, Tblock Revision Exercise
Exercises: None
QUIZ: None

Week: 9
GOALS: Review and time to catch up on drawings
EXAM: Mid-Term Written Take at home Test and Mid-Term drawing

Week: 10 & 11
GOALS: Review dimensioned drawings for common errors and summarize. Begin work on Chapter 23 Section Views & Graphic Patterns (Hatch and Bhatch)
Exercises: Brick Pavers Driveway Template (Direct), Cabinet Section Hatch Exercise Template
Drawings: Shower Head (Adjust Origin), P23-6 (Sales History)
Homework: Read Chapter 24 & Review Test Questions
QUIZ: Chapters 23 Test Questions

Week: 12 & 13
GOALS: Review Section Views & Graphic Patterns and complete work on Chapter 23. Begin work on chapter 24-Creating Symbols.
Chapter 24-Standard Blocks
Exercises: Student Block Exercise-Design Content
Drawings: Student Block Exercise Template, also a catch up week
Homework: Read Chapter 10 & Isometric Supplements & Review Test Questions
QUIZ: Chapters 24 Test Questions

Week: 14 & 15
GOALS: Review Creating Standard Blocks and complete work on Chapter 24. Begin work on Isometric supplements, Pictorial drawings. Final correction of drawings and work on submitting Final Portfolio
Isometric Supplements-Basic Pictorial Drawings
Exercises: Student Isometric Exercise
Drawings: Iso1.dwg, Iso2.dwg
Homework: None
QUIZ: Isometric Supplements Test Questions

Week 16 & 17
GOALS: Review working with Isometric drawings and complete work on isometrics. Work on drawings and submit Final Portfolio. Take Final Written Exam as a take home online.
Exercises: None
Drawings: Work on final drawing submittals and Final Portfolio.
Homework: None
EXAM: Final written exam and Final Drawing

Week 18
GOALS: Take Final Drawing Exam in class
Exercises: None
Drawings: Final Exam Drawing
Homework: Final drawing submittals and Final Portfolio due.
Final Exam: Final Drawing

Industrial Technology Program Rules of Conduct

The Industrial Technology program uses both dangerous and expensive equipment; therefore the expectation of behavior in the classroom/shop is higher than the typical classroom.

Classroom/Shop Rules

1. No horseplay
2. No running
3. No foul language
4. No yelling
5. No behavior that interferes with others learning.
6. Bring necessary items to class, pencil, notebook, tape measure
7. Must be in seat before bell stops ringing

The first time or anytime a student does not adhere to the classroom/shop rules; they are assigned a 15 minutes of service work to be served in the shop or classroom. Infractions of a more serious nature will be dealt with on case by case basis. Student's 15 minutes of service work will consist of program related schoolwork, repairing/maintaining shop equipment, maintaining shop cleanliness, or any other school related activity that will help the student and the program. This not only enforces the idea that safety and preparation come first, but also helps enforce expectations with real world consequences and helps build positive ownership in the program.

The reason for this is simple. If we keep the standard high, the chance of injury or mishap is greatly reduced.

Please complete the spaces below and return this sheet to Mr. Smith. Student will receive points towards their grade if turned in on time. Student will receive diminished points based on date turned in after due date. If not turned in by end of first week of class, student will not be allowed out into the shop. This document also doubles as a photo release. We market our program and students to aid in developing industry supporters, internship opportunities, and job opportunities for students after high school.

Student

Written Name _____Email_____

Signature _____Phone _____

Parent/Guardian

Written Name _____Email_____

Signature _____Phone_____