

Syllabus for CADD 1

2D Computer Aided Design and Drafting

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



Instructors Name: Mr. Smith

Email Address: msmith@morrishs.org

Location: Room 304

Course Description: CADD 1 is an introductory course covering the operation of a typical CAD system. Contest stresses CAD graphic commands, proper manipulation, industrial CAD software and hardware to produce engineering drawings. Emphasis is placed on developing entry-level CAD user skills using the current version of the AutoCAD software.

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 20th Edition for Release 2013

Methods of Instruction:

- Lecture/Demonstration
- Lab/Computer Work

Students Learning Outcomes

- Create, Save and Edit CAD drawings
- perform basic file management functions, and use prototype drawings.
- Use layers, line-types, and color for clarity and to show function in drawings.
- Draw accurately typed input and the various User Coordinate Systems.
- Prepare and use a set of title blocks in standard sizes (for use with all drawings).
- Use the Inquiry, Help, Undo and other commands (to manage the drawing session).
- Produce simple assembly drawings using block and xref techniques.
- Use attributes to add verbal information to symbols.

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
		100-92 A
Quizzes (9 @ 15pts)	15%	91-83 B
Drawings & Exercises (37 @10pts.)	40%	82-74 C
Mid Written & Drawing Exam (100)	10%	73-65 D
Final Written & Drawing Exam (125)	10%	64-0 F
Portfolio-10 Bound Drawings (125pts.)	10%	
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 will start a portfolio of completed assignments chosen from best examples of his/her work and will be finished in CADD 2. 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 and 3-ring notebook
- Textbook
- Handouts

Week: 1 & 2

GOALS: Introductions, File Management, CAD Lab procedures, Syllabus, DWG Checklist, review box.com and PowerSchool.com. Intro to Coordinate Systems.

Chapter 1 - Introduction to AutoCAD Features

Chapter 2 - Working with Drawings and Templates

Chapter 3 - Intro to Drawing & Editing

Exercises: Coordinate Entry, Coordinate Input Worksheet

Drawings: P03-3 Family Tree: Snap

Homework: Read over Chapter 1 & All Questions:

Read over Chapter 2 & All Questions:

Read and Do Chapter 3 Questions:

Read and Do Chapter 5 Questions:

QUIZ: First week & Chapters 1 & 2 Homework Test Questions

Week: 3 & 4

GOALS: Review file management, box.com, and PowerSchool procedures and review work from chapters 1 & 2.

Continue work on Chapters 3 & 5 Intro to Drawing & Editing and line standards. Review and turn in Chapters 3 & 5 Homework Test Questions.

Chapter 3 - Intro to Drawing & Editing

Chapter 5 - Line Standards, Drawing Format, and Printing

Exercises: Create TBAL-MS

Add layers & Text Style

Drawings: P03-13, TBAP-MS, Family Tree, P03-3

Homework: Read and Do Chapter 4 Questions:

Read and Do Chapter 7 Questions:

QUIZ: Chapters 3 & 5 Homework Test Questions

Week: 5 & 6

GOALS: Review coordinate entry and line standards and complete work on Chapters 3 & 5, including Object Selection Sets. Begin work on Chapters 4 & 7 Drawing Shapes, Object Snaps, and Auto Tracking. Discuss Polar & Object Tracking alignment paths. Review and turn in Chapters 4 & 7 Homework Test Questions.

Chapter 4 - Drawing Basic Shapes

Chapter 7 - Object Snap and Auto Tracking

Exercises: Student - Shape Worksheet, Student - Osnap Worksheet, P07-2

Drawings: P08-07, P04-1, P07-08, P04-9, and P04-16

Homework: Read and Do Chapter 11 Questions:

Read and Do Chapter 12 & 13 Questions:

Quiz: Chapters 4 & 7 Homework Test Questions

Week 7 & 8

GOALS: Review drawing basic shapes and object snaps and complete work on Chapters 4 & 7, Osnaps & Shapes worksheet. Begin work on Chapters 11, 12, & 13 Editing Tools, Grips, & Properties. Review and turn in Chapters 11 & 12 Homework Test Questions.

Chapter 11 – Modifying Objects

Chapter 12 – Arranging and Patterning Objects

Chapter 13 – Grips, Properties, and Additional Selection Techniques

Exercises: Student - Edit Commands WS, Student - Grips worksheet, Student – Array Worksheet, Scale & Rotate by Ref.

Drawings: Latch Plate, Friction Plate, Terminal Board, P13-03, P13-04

Homework: Read and Do Chapter 6 & 8 Questions:

QUIZ: Chapters 11, 12, 13

Week: 9

GOALS: Review and time to catch up on drawings

EXAM: Mid-term written test and Mid-Term drawing

Week: 10 & 11

GOALS: Review editing commands and Grips and complete work on Chapters 11, 12, & 13. Begin work on Chapters 6 & 8 Display options and Construction Tools. Discuss Architectural Input Units. Review and turn in Chapters 6 & 8 Homework Test Questions.

Chapter 6 – View Tools and Basic Plotting

Chapter 8 – Construction Tools & Multi-view Drawings

Exercises: Room Elevation, Multi-view Worksheet

Drawings: P08-2, P08-14

Homework: Go over the e-Scaling Topic Handouts.

QUIZ: Chapters 6 & 8 Homework Questions

Week 12 & 13

GOALS: Begin work on eScaling for model space and final correction of drawings for portfolio Electronic Scaling (Instructor based lecture, hand-outs, study guide, & quiz)

Exercises: eScale Ex - Floor Plan 01, eScale Ex - Floor Plan 02

Homework: Read and Do Chapter 9 Questions:

Read and Do Chapter 10 Questions:

Read and Do Chapter 21 Questions: (Instr. Key)

QUIZ: e-Scaling

Week: 14 & 15

GOALS: Begin work on eScaling for model space and final correction of drawings for portfolio

Electronic Scaling (Instructor based lecture, hand-outs, study guide, & quiz)

Exercises: eScale Ex - Floor Plan 01, eScale Ex - Floor Plan 02

Drawings: Garage 1 (Ltscale – Override), Garage 2 (Ltscale - Global)

Homework: Read and Do Chapter 9 Questions:

Read and Do Chapter 10 Questions:

Read and Do Chapter 21 Questions: (Instr. Key)

QUIZ: e-Scaling

Week: 16 & 17

GOALS: Review work on eScaling for model space, begin work on Text and Tables, and final correction of drawings for portfolio

Exercises: Special Text Characters and Spell, Find, and Replace

Drawings: P09-08A Paragraph, P09-08B Paragraph, and P21-14 Table

Homework: Read and Do Chapter 9 Questions:

Read and Do Chapter 14 Questions:

Read and Do Chapter 15 Questions: (Instr. Key)

QUIZ: Chapters 9, 10, & 21

Week: 18

GOALS: final exam written and drawing and final correction of drawings for portfolio

Complete Final written and drawing exam

Turn in Portfolia

Morris Community High School-Mr. Smith
Industrial Technology-Pre-Engineering Program

www.facebook.com/mchsit
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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. There are seven basic rules and all seven rules relate to shop safety, work skills, and being prepared for class.

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

Since the potential for injury to the student and the equipment is higher than the traditional classroom setting, the consequences are higher than those found in the student handbook. **The first time or anytime a student does not adhere to the classroom/shop rules, they are assigned a 1/2 hour 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 1/2 hour 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. I have used this process for years and consequently have never had a serious mishap with a student or piece of equipment.

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.

Student

Written Name _____ Email _____

Signature _____ Phone _____

Parent/Guardian

Written Name _____ Email _____

Signature _____ Phone _____