**Introduction to Computer-Aided Drafting CAD 100**

Allen County Career and Technical Center

2016-2017 Syllabus

# Instructor: Mrs. Dolorse Rice (dolorse.rice@allen.kyschools.us)

#  Room: 111 ACCTC Phone: 622-4711

**Course Description**

Students use a computer graphic workstation in the application of fundamental principles and capabilities of CAD, basic drafting conventions, and operations. An in-depth study of computer-aided drafting commands, terminology, command utilization, and skill development will be provided.

**Content Process**

Students Will:

1. Demonstrate and practice safe work habits in the lab area.
2. Demonstrate an understanding of orthographic projection, section, auxiliary, and pictorial views as they relate to three-dimensional objects.
3. Identify the alphabet of lines and name each line’s use.
4. Use architect, metric, and civil mechanical drafter’s scales.
5. Understand the use and purpose of a title block.
6. Demonstrate a basic understanding of dimensions and their uses.
7. Describe, using correct computer terminology, basic computer functions, uses of computers

 in society and different types of software.

8. Discuss ethical computing issues, such as copyright, privacy, security, and property.

9. Use graphical user interface.

10. Use computer application programs.

11. Access information sources found on networks such as the Internet, and utilize web browsers, search sources, and sources of information related to his or her, own field.

12. Demonstrate an awareness of different types of software applications.

13. Produce line entities using various coordinate techniques.

14. Construct geometric shapes in two-dimensional space.

15. Develop detailed orthographic views as required.

16. Construct cross sections of various designs with cross-hatching incorporated as desired.

17. Apply dimensions and annotations to drawings.

18. Move, copy, delete, and save drawings or portions of drawings.

19. Use CAD to manipulate drawings by means of translation, rotation, scaling, zooming,

 panning and windowing.

20. Explore 3-D drawing techniques.

**Connections**

\*State Standards

\*KOSSA

\*State Technical Standards

\*New Generation Science Standards

\*AutoDesk Industry Standards

\*SolidWorks Industry Standards

\*Post-Secondary Education

\*CTSO - Skills USA

**Classroom Procedures**

1. **Attendance:**
	1. Class attendance is very important, but especially in labs where work cannot be made up outside of class. If absent from class, the student is responsible for completing missed work. If the student is absent on quiz or exam day, he must be prepared to take the exam when returning to class.
	2. Tardiness will be referred to detention as specified in the student handbook.
	3. All students are to be in their seats when the bell rings, and completing the daily assigned bell ringer. This assignment will be on the board each day.
2. **Handbook policies:** Handbook policies regarding use of cell phones and other electronic devices will be

 followed. Students are expected to follow the school guidelines

1. **Materials:**

**1. Materials that student needs to purchase**: (1) ½”binder with 2 pockets (front and back) and (16) Divider tabs. The binders will remain in class for the entire semester. Students must bring a pencil to class every day. Pencils will not be provided by instructor. *Students must have these by the first week of class*.

**2. Equipment: Computer and Board Drafting**

All necessary board drafting equipment and computer equipment is provided. Dell computer package includes processor, monitor, keyboard, and mouse. Should a student damage any piece of the equipment (even accidentally), that student is required to replace that piece of equipment at equal value. If a student damages any equipment intentionally, then that student will be disciplined.

**3. Textbook:**

1. Applying AutoCAD 2010, by Terry Wohlers, The McGraw-Hill Companies, Inc.
2. Technical Drawing, Twelfth Edition: by Giesecke, Mitchell, Spencer, Hill, Dygdon, and Novak
3. Textbooks are provided for students’ use in class, but if misused or damaged by a student, then that student is required to pay for the determined damage value.
4. **Software:** AutoDesk: AutoCAD 2015.
5. **Course Requirements and Grades:**
	1. **Activities:** Each lesson or unit requires several practice activities or drawings. These drawings and activities will be scored on accuracy, neatness, and timeliness; in computer-aided drafting it is important that you learn to work quickly, but correctly and always neatly. These drawings will be the largest portion of your grade, so do your best on every one. Your work effort, attitude, cooperation and behavior will be considered when scoring your productivity.
	2. **Drafting Portfolio:** A comprehensive notebook including all drawings, activities, and class notes will be graded each 4-1/2 weeks. **This is a mandatory activity.**
	3. **Quizzes:** Unit quizzes will be given at the end of each unit. These will be short quizzes covering only the current lesson (unit). The quizzes will be multiple choice, short answer, matching, etc.
	4. **Midterm:** The midterm exam will be comprehensive, covering all material discussed in class up to that time. It will be of a similar type as the quizzes, only more thorough.
	5. **Final Exam:** The final exam will be comprehensive, covering all the material discussed in class for the entire semester. Learning CAD is a building process much like learning a job. You learn new things every day, but you can’t forget the things that you learned previously in that job. The final exam will cover all you have learned and will be applied to a drawing, and as a written exam.

f. **Grading:** Drawings, Activities, Comprehensive Portfolio, Unit Quizzes, Midterm, and Final are all graded on a 100 point system, but may be assigned different percentages in the overall grading process.