

# Computer Aided Drafting 1&2

Park High School

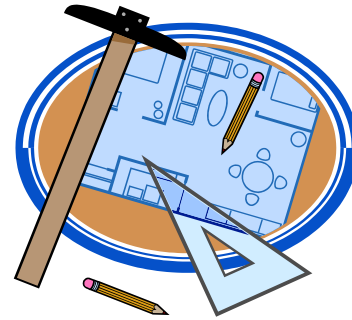
Course Syllabus

## Industrial Technology

Computer Aided Drawing

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School Year 2015-2016, Period 3



### Course Summary:

In this class, students will learn to visualize in both two and three dimensions, which will strengthen their ability to think precisely, as well as enable them to read and write the language of drawing. They will gain experience in making and reading working drawings used in industry. Students will also gain knowledge of the computer as a drawing tool, and the commands needed to assist them in the completion of their drawings. Students will obtain experience in the operation of plotters and printers, as well as other various output and input devices used in the computer-aided drafting field.

**Dual Credit:** *This class is being offered as a dual credit class. Students that opt for this opportunity can obtain 2 semester credits through Gallatin College. Details will be provided by instructor.*

### Learning targets:

The following is a list of some of the topics that will be covered during the course of the year:

#### **Drawing/drafting-Fundamentals:**

Many various aspects of the drafting/drawing world will be explored. Students will learn about and implement many different types of technical drawings including orthographic (2D) and 3D drawings, and the many types of views that can be illustrated. Both traditional and computer based methods will be used.

#### **Drawing Language**

Students will learn the language of drawing and design, understanding the terms and vocabulary used in the field. They will also gain experience in developing and reading working drawings used in industry.

#### **Tools & Equipment**

Students will obtain not only a strong knowledge of the tools and equipment used in the industry, but will also obtain a lot of experience in their use. Again this will include not only traditional tools, but also a wide range of computer technologies and software.

#### **Math &**

Students will acquire a strong understanding of the math and measurement skills necessary to produce technical drawings. Accuracy and precision will be stressed

#### **Solid Modeling & CNC Operations**

Students will use different solid modeling softwares to develop 3 dimensional designs and then will convert those designs to actual products using a computer controlled milling machine.

#### **Architecture**

Students will explore the world of Architecture, looking at many aspects of the field, from design through the development of actual working drawings.

### **Class Activities:**

This is primarily a “hands-on” class where most of the information and skills taught will then be reinforced through some sort of drawing or lab based activity. Certain drawings will be product oriented, where the skills and content taught will be applied through the creation of some sort of final product. Other activities will be process oriented where the focus of learning is generated through the process students go through while designing and drawing rather than focusing on the end result.

### **Student Expectations:**

My personal educational philosophy centers around the notion that the more students experience, the more involvement they have in any aspect of life, the more they learn. Knowledge comes from doing, no matter what it is we are doing. This being said, my main student expectation is that students honestly apply themselves in each of the many activities that we embark on with-in the class. This includes not only the hands-on applications, but also learning the content information taught during the application of each area of study.

**The more we do, the more we learn.**

### **Student materials needed daily:**

Pencil, Paper, and a 3-ring binder



### **Class Evaluation:**

Students’ grades will be determined from a combination of different sources including but not limited to:

Class work/drawing activities  
Tests & quizzes

Drawing Projects  
Lab Participation

Portfolio Evaluation

*This is a lab based class which results in very little homework for the student.*

*However strong participation in class is extremely important to not only the student’s grade, but more importantly to what the student potentially can learn through-out the course of the year. Students taking the class for dual credit will have to demonstrate proficiency in certain areas to obtain the credits.*

**Idle hands lead to Idle minds.**

### **Grading Scale:**

97-100 A+	87-89 B+	77-79 C+	67-69 D+	0-59 F
94-96 A	84-86 B	74-76 C	64-66 D	
90-93 A-	80-83 B-	70-73 C-	60-63 D-	

