

Name_____

Date_____

AutoCAD

Course Guidelines and Goals
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Course Description

Engineers and technologists are people who use science, technology, art and math to create things that advance society. This course will introduce you to the **Design Process** using hand sketching techniques and engineering drawing using **AutoCAD**. During this course, you will also learn to create mechanical parts and floor plans with **AutoCAD**. Hopefully, you come away from this course inspired to look at careers in mechanical engineering, product design or architectural design.

The course is divided into two parts. First, you will learn the skills necessary to hand sketch designs. We will practice hand sketching throughout the semester. Second, you will display proficiency in the basic operations of AutoCAD software. You will further develop your proficiency in AutoCAD by creating your own house designs according to design specifications. You will use the Design Process to create your designs.

Timeline

Classes

- 1 – Introduction
- 2 – Rules and Procedures
- 3-7 Sketching
- 8– Lab Practices
- 9-10– Getting Started 1
- 11-18– Getting Started 2
- 19-25 – T 1 Introduction to AutoCAD
- 25-34 – T 2 Basic Construction Techniques
- 35-42 – T 3 Basic Editing and Plotting Techniques
- 43-51 – T-4 Geometric Constructions
- 52-60 – T-6 Orthographic Drawings
- 61-70 – T-7 Dimensioning
- 71-90 - Colonial House Project (Final Project)

By the end of this course, you will be able to:

1. **Conceptualize** and **draw** designs using orthographic and isometric views.
2. Use the necessary **literacy skills** to convey design ideas to your teacher and classmates.
3. Be able to **communicate** your design ideas using the vocabulary and terminology of engineering drawing and Computer Aided Design.
4. Identify the components of the Design Process in a work in progress.
5. Apply the Design Process to a mechanical engineering problem.
6. Be able to display proficiency in the basic elements of AutoCAD software.
7. Troubleshoot 2-D sketches using inquiry and discovery

Responsibilities

1. Be on time – if you are late for class, it will be noted and reported (demerits).
2. Respect – you must be respectful at all times.

Respect means:

No swearing or inappropriate language

No talking while another person is talking

No interrupting another person while they are working

No heads on desks

Raise your hand for help or questions

NO FOOD!!

Water (in a clear water bottle ONLY) is allowed - NOT IN THE COMPUTER AREA, HOWEVER!!

No waiting at the door!!

3. Have your assignments completed on time – **NO EXCUSES!!**

What to bring to Class

1. Pencils – bring more than one. Why?
2. A Flash Drive – if you “lose” your work, you will have to re-do it.
3. A great attitude! **Grading**

Projects are graded on a point system. Some are worth 10 points; some are worth 100 points, depending on the importance and amount of material covered in the assignment.

Projects – 85%

Class Participation: 15%

Projects

Digital projects must use the filename formula *nameINL_CL_period*, where “name” is the project name (e.g. lego), INL is your initials, CL is the course abbreviation (e.g. PE), and period is the period of the day. **THERE WILL BE AN AUTOMATIC PENALTY IF THIS IS NOT DONE CORRECTLY!**

Work that is missing – **NO MATTER THE REASON** – must be made up. Students should purchase a **FLASH DRIVE** (about \$10 at Staples, Walmart, Office Max) to use as a back-up for digital files that are created in class. If your work is missing due to BPS network problems, *that is not an excuse for not turning it in. YOU SHOULD BACK UP ALL OF YOUR FILES ONTO A FLASH DRIVE BEFORE LEAVING CLASS!!*

Missed **quizzes** and **tests** must be made up within two days of returning to school, unless there are extenuating circumstances and approval of Mr. Brunelle.

I have read and understand the course expectations:

Student

Parent/Guardian