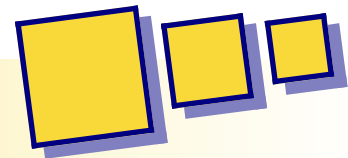


Engineering Design and Drawing



About the Course

It is the intent of this program for students to gain knowledge in Engineering Drafting and related topics. The student will be expected to show progress by advancing through the different levels of the curriculum. Upon the successful completion of each semester, students will build upon previous experience to advance to the next level.



What students will learn...

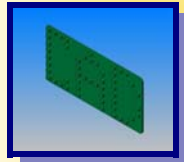
Basic Topics

- ◆ Sketching
- ◆ CAD (Computer Aided Drafting)
- ◆ Drafting instruments and uses
- ◆ Block hand lettering
- ◆ Geometric construction
- ◆ Dimensioning
- ◆ Multi-view drawing concepts



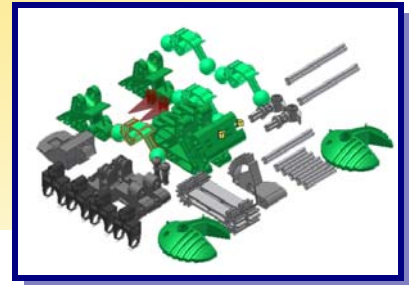
Advanced Topics

- ◆ Section drawing
- ◆ Plot plans
- ◆ Floor plans
- ◆ Elevations
- ◆ Details
- ◆ Axonometric drawing
- ◆ Auxiliary views
- ◆ Drawing layout
- ◆ Assembly Drawings
- ◆ 3-D Object Creation
- ◆ 3-D Animation
- ◆ Product Cost Analysis



Why are there LEGOS all over the place?

Students learn to measure, compare and assemble mechanical objects with CAD software. The principals of apart revolve around how it works, it's materials, it's properties and it's performance in an assembly. LEGOs provide us with a manageable way to deal with these issues and besides, they are fun to work with!



Mt. Zion High School
2002-03

CAD VICA Competitor

Mini Digital Video Cassette Holder Project

T.E.C.

Mt. Zion High School
2002-03

CAD VICA Competitor
Retired Teachers Assoc.
Student of the Year

Mini Digital Video Cassette Holder Project

T.E.C.

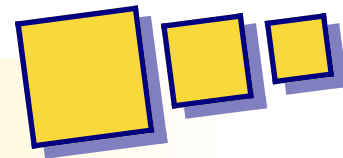
Temple High School
2002-03

RVI - State 2nd Place

Mini Digital Video Cassette Holder Project

T.E.C.

Engineering Design and Drawing



Prerequisites



This course is open to all high school students in the 10th grade or higher. Students must have completed at least one credit in mathematics and one credit in English.

Helpful Courses



- ◆ Keyboarding
- ◆ Basic Math

Completion Incentives



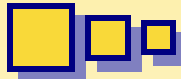
This course is in an articulation agreement with selected area colleges. Students earning an 85% or higher in this course can be eligible to test out of classes offered at the technical college earning credit toward a certificate program in the drafting field.

Personal Characteristics



- ◆ Great Attitude
- ◆ A Willingness to try something Different
- ◆ Students Who Enjoy Geometry

Salary Information



The following are estimated averages

Architect	50,000 /year
Draftsman	30,000 /year
Engineer	
◆ Civil	40,000 /year
◆ Mechanical	44,000 /year
◆ Electrical	46,000 /year
Industrial Designer	37,000 /year
Interior Designer	27,000 /year

Work Based Opportunities

The purpose of Engineering Drawing is to provide students with a basic body of knowledge in engineering drawing related career areas. It is the intent of this course to provide skills needed for students to gain entry-level employment opportunities.

- ◆ Students are encouraged to:
- ◆ Visit potential employers
- ◆ Job shadow

Work in an environment related directly to CAD through Youth Apprenticeship or Co-op classes.

Career Opportunities

- ◆ Draftsman
- ◆ Architect/Interior Designer
- ◆ Civil Engineer
- ◆ Mechanical Engineer
- ◆ Residential Designer
- ◆ Product Designer

Co-Curricular School Activities

- ◆ SkillsUSA-VICA:
A co-curricular school club which provides students with the added benefit of gaining work place skills in the areas of leadership, networking, and skill demonstration though regional, state and national level competitions.

- ◆ Student dues \$13.50



**Carroll County
Schools**

<http://carrollcountyschools.com>

