Industrial Arts Framework

The following courses are offered through VALEES (Valley Education for Employment System). Valley Education for Employment System (VALEES) is a regional delivery system established by the Illinois State Board of Education (ISBE) which serves 18 school districts, two area career/vocational centers, one special education cooperative and Waubonsee Community College, covering a five-county area. VALEES also collaborates with College of DuPage, Joliet Junior College, and Kishwaukee College to promote articulated Career and Technical Programs.

Computer Aided Drafting II

This course picks up where Computer Aided Drafting I ends. More time is spent on the details and drawings in the areas of sectioning, auxiliary, fasteners, descriptive geometry and assemblies. Students will also gain more experience in the areas of 3D modeling, assembly drawings and other topics becoming more widely used in the engineering related fields. Board and computer drafting, as well as other opportunities are all utilized to help students learn about the different parts of engineering and design. Recommended for anyone interested in any field related to engineering and design. (Valees # 1245)
Additional information can be obtained at http://www.valees.org/.

Computer Aided Drafting III

This class takes it all to the next level! Students begin to learn about product customization, more types of software, creating a portfolio and professional presentation as well as continuing with previously learned topics. Time will also be spent on studying engineering design and manufacturing processes. Board and computer drafting, field trips and guest speakers are all utilized to help students learn about the different parts of engineering and its related fields. This course is recommended for students interested in an engineering-related career. Completion of CAD III will make a student eligible to apply for course credit at Waubonsee Community College. (Valees # I345)
Additional information can be obtained at http://www.valees.org/.

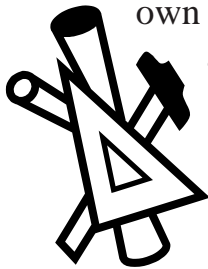## *Computer Aided Drafting IV*

Computer Aided Drafting IV is the class for anyone who wants to pursue a career in engineering or any technical field. Students will take any and all concepts learned in previous CAD classes and take them the next level while applying them to real life problems and hands-on projects. Topics will focus on the creation of

formal technical blueprints, the redesign and design of products, multi-part assemblies that are both in 2D and 3D, reverse engineering, problem solving, tolerancing, manufacturing and more. Students will utilize sketching and brainstorming as well as the computer with the added benefit of guest speakers and plant tours. Projects are similar to those found on the job or at the college level. Successful completion of this course with a B average or better will make a student eligible to apply for course credit at Waubonsee Community College. (Valees #I445)

Additional information can be obtained at http://www.valees.org/.

Architectural Drafting I

In Architectural Drafting I, students will begin to learn about the world of architecture and how it applies to them. Throughout the course, we will be learning about the design of residential architecture and construction through each student's own home, the city of Geneva and design projects. Students will complete a set of working drawings which include elevations, floor plans, detail sections and 3D models, board and computer drafting, field trips, hands on projects, and guest speakers are all utilized to help students learn about the different parts of architecture. (Valees # I550)

Additional information can be obtained at http://www.valees.org/.

Architectural Drafting II

This course is a continuation of material and activities from Architectural Drafting I. Students will go into more detail on topics covered previously, but also begin taking a closer look at commercial architecture and construction. Students will build models by hand and on the computer as well as completing the creation of a basic computer "tour" of part of a home using animation/rendering software. Many projects are similar to those found at the college level. Board and computer drafting, competitions, field trips and guest speakers are all utilized to help students learn more about the different parts of architecture and construction. (Valees # I550)

Additional information can be obtained at http://www.valees.org/.