

INDUSTRIAL TECHNOLOGY

INTRODUCTION TO INFORMATION TECHNOLOGY

10 1 credit 2 semester (full year) \$20.00

With the growing job field of information technology, this course can be considered a pre requisite to this field. It will give the students an introduction to many of the computer technology courses offered at Fairfield High School. The course gives you an introduction to web page design, integration of computer applications, computer trouble shooting and repair, networking of computers, computer software skills and PowerPoint, introduction to computer programming and several other enjoyable skills. These skills can be used in many other opportunities throughout life and your high school career. Project formats are used in the teaching process, enabling students to work at their own pace.

This course is open to **Sophomore Students** only.

PROGRAMMING AND SOFTWARE DEVELOPMENT COLLEGE TECH PREP

11 1 credit 2 semester (full year) \$20.00

(Prerequisite: 11th Grade with an entrance GPA of at least a 2.0; Algebra I with a “C” or better; and on track with high school graduation requirements.)

This course is step one of a two-year program for Programming and Software Development. There are several certification tests students will be able to take at the end of the program including Inet+ and MOUS Certifications. The course offers articulation agreements with area colleges so that once a student completes the two-year program, he/she may be eligible to earn college credit for the course and/or may be able to test out of college courses in order to take more advanced courses. The course is based upon the core skills drawn from the itWORKS.OHIO.ORG profile.

This course is open to **Juniors** only.

PROGRAMMING AND SOFTWARE DEVELOPMENT COLLEGE TECH PREP

12 1 credit 2 semester (full year) \$20.00

(Prerequisite: Successful completion of the Applied Technology I course, 12th Grade standing, a BPA of at least a 2.0, Algebra I with a “C” or better, and on track with high school graduation requirements)

This course is a continuation of Programming and Software Development. The main concentration is computer software design and computer programming. The course offers articulation agreements with area colleges so that once a student completes the two-year program, he/she may be eligible to earn college credit for the course and/or may be able to test out of college courses in order to take more advanced courses. The course is based upon the core skills drawn from the itWORKS.OHIO.ORG profile.

This course will be open to **Seniors** only. Students should end the program with a 2.25 or higher. The students will have the opportunity to take multiple attempts at the college entrance tests as well, for example the compass test.

INTRODUCTION TO ENGINEERING & MANUFACTURING TECHNOLOGIES

10 1 credit 2 semesters (full year) \$10.00

This class is an introductory course for sophomores interested in engineering and engineering related fields. The main focus of the class is centered on computer aided drafting and manufacturing related topics. Using SolidWorks and A+ CAD, students will learn computer aided drawing skills to create working drawings. Students will also build projects in the manufacturing shop. Building projects out of wood, metal and plastics, students will increase students' problem solving skills. Students will also be introduced to machinery used in the manufacturing setting (such as a Computer Numerically Controlled Mill). This class is highly recommended for all sophomores interested in pursuing a career in manufacturing, engineering architecture, or other technical field. All students who select this class are automatically enrolled into the career technical student organization SKILLS USA.

ENGINEERING AND MANUFACTURING DESIGN I

11 2 credits 2 semesters (full year) \$20.00

The Engineering Design I program is the first step in a two year program that offers introductory to intermediate training in computer-aided drafting and design. Students will be introduced to Mechanical and Architectural theory and design basics which will be used to prepare computer generated drawings. The latest and newest versions of software (Solid Works, A+ CAD, Archicad and others) will be utilized along with state of the art equipment (Pentium 4 computers, 2D Plotter and 3D Printer). There are no prerequisites for this class although Engineering & Manufacturing Foundations or Introduction to Drafting & CAD is highly recommended. All students who select this class are automatically enrolled into the career technical student organization SKILLS USA.

ENGINEERING AND MANUFACTURING DESIGN II

12 2 credits 2 semesters (full year) \$20.00

The Engineering Design II program is the second step in a two year program. This class offers intermediate to advanced training in computer-aided drafting and design. Utilizing the latest and newest versions of software (Solid Works, A+ Cad, Archicad and others) and state of the art equipment (Pentium 4 computers, 2D Plotter and 3D Printer) this class will delve deeper into the development of three dimensional drawings, models and architectural details. This class will also assist the student in the preparation of a portfolio which will benefit in the pursuit of further education or employment. All students who select this class are automatically enrolled into the career technical student organization SKILLS USA.

ENGINEERING TECHNOLOGY FOUNDATIONS/MANUFACTURING & COMPUTER AIDED DRAFTING (C.A.D.)

10-12 1 credit 2 semesters (full year) \$20.00

Engineering Foundations class is an introductory course for Students interested in engineering and engineering related fields. The main focus of the class is centered on computer aided drafting and manufacturing related topics. Using SolidWorks and A+ Cad, students will learn computer aided drawing skills to create working drawings. Students will also build projects in the manufacturing shop. Building projects out of wood, metal and plastics students will increase students' problem solving skills. Students will also be introduced to machinery used in the manufacturing setting (such as a Computer Numerically Controlled Mill). This class is highly recommended for all sophomores interested in pursuing a career in manufacturing, engineering architecture, or other technical field. This class is suggested for students interested in Engineering Design I as a junior. All students who select this class are automatically enrolled into the career technical student organization SKILLS USA.

