# Robert E. Fitch High School

2022 2023

Technology Education

Course Offerings

Communications

Graphic Communications
(1 Credit)

Do you enjoy designing and being creative? If so, than this course is for you. In this course you will have an opportunity to create business cards, CD covers, tee shirt designs, brochures, newsletters, calendars, and much more using Adobe's Photoshop, InDesign, Illustrator, and Premiere Pro video editing software.
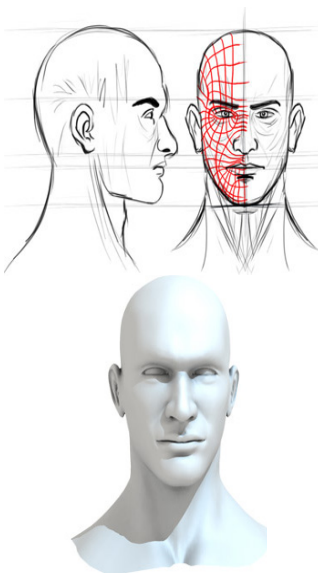
Animation
(1 Credit)

Animation is one of the fastest growing fields today. From video games to the operating room, it is used EVERYWHERE! The only limitation to this course is your imagination! Who should take this? EVERYONE can benefit from this course. Art students, engineering students, pre-med students, gamers, etc. There are many types of software programs that students will explore: 3D animation software, Adobe Premiere Pro, Photoshop, and more! Explore and learn the basic tools and techniques of this vast and quickly growing industry.

Video Production I
(1 Credit)

This year-long course will introduce students to the many aspects of video production. Students will learn basic skills such as storyboarding/ pre-production, filming/production and editing/ post-production. Throughout the course, students will be exposed to proper techniques not only in relation to filming, but also regarding sound and lighting requirements. Students will be evaluated based upon sample videos relating to such themes as documentaries, public service announcements, school events, and more.

Video Production II
(1 Credit) Prerequisite: Video Pro. I

For students that wish to expand their interest in video production, we offer Video Production II. The level two students have the opportunity to develop interest and skills in production video. You will be creating and producing school-wide announcements, video essays, news stories, advertisements, and filming a variety of community and school events that will be aired to the community on Channel 19.

Manufacturing

Intro to Manufacturing
(.5 Credit)

Do you enjoy working with wood and building things with your hands? This course will introduce you to the skills, equipment and knowledge needed in the modern manufacturing world. Students will learn and develop skills in measurement, drafting, blueprint development, and presentation. Students will use these skills to complete a variety of small manufacturing-based products. This course is the first step before Manufacturing I and II, and/or the Manufacturing Pipeline pathway.
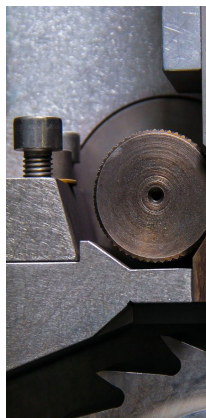
Manufacturing Technology I
(1 Credit)
Prerequisite: Intro to Manufacturing

This manufacturing course focuses on the craft of woodworking. It introduces students to mass-production and facilitates the completion of individual projects in the woodworking lab. Hands-on activities are used to support academic success as students navigate managed activities to convert an idea into a product that is produced to help students connect academic concepts to real world applications. Students learn to safely use essential woodworking tools and techniques and apply them to a project focused on raised panel construction.

Manufacturing Technology II
(1 Credit) Prerequisite: Manufacturing I

In this advanced woodworking course, students will continue to develop skills that convert an idea into a product that is produced for profit or personal enjoyment. This will include advanced woodworking projects such as design and layout, veneer radial patterns, and the manufacture of a beautiful radial patterned table top. Prerequisite: Successful completion with a passing grade of Manufacturing I.

Fitch High School Manufacturing Pathways

At Fitch High School, there are two pathways through the manufacturing program. One is for students who are interested in general enrichment and preparation for post-secondary academics or a career. The second, called the Manufacturing Pipeline, is a partnership with the Eastern Connecticut Workforce Investment Board (EWIB). The Manufacturing Pipeline course is taken in lieu of Manufacturing II, and provides specific training and certification for a student to go from high school right into a manufacturing job in our state! We look forward to offering the Pipeline course for the 2022-23 academic year, so get started with your prerequisites now!

Manufacturing Pathway
1. Introduction to Manufacturing
2. Manufacturing I
3. Manufacturing II

EWIB
EASTERN CT WORKFORCE
INVESTMENT BOARD

EWIB Pipeline Pathway
1. Introduction to Manufacturing
2. Manufacturing I
3. Manufacturing Pipeline

Engineering

Architectural CAD I
(1 Credit)

In this course you will learn about home ownership and management. An essential course if you are considering fields like construction, interior design, landscape design, structural engineering, or architecture. Using industry standard software, Autodesk Revit, you will learn drafting techniques that will enable you to draw your dream house while learning the basics of the field of architecture from a professional master builder. Bring your visions to life with a virtual walkthrough of your creations.

Architectural CAD II
(1 Credit) Prerequisite: Arch CAD

Continue on where Arch CAD left off. Learn estimating, advanced modeling, and 3-dimensional electrical and plumbing. For the students that are serious about the field of construction, interior design, landscape design, structural engineering, or architecture or really enjoyed Arch CAD. Using the architecture industry's premier software, Autodesk Revit, you will learn advanced drafting techniques that will better prepare you for post-high school education or career in one of these fields. Imagine you can locate your house anywhere in the world and it will become fully functional. Doors will open and close, lights will turn off and on, create day or evening lighting. All Arch II students will be able to print a 3D model of your home.

Project Lead the Way Engineering Courses and Pathways

Project Lead The Way is the nation's leading provider of science, technology, engineering, and math (STEM) programs.
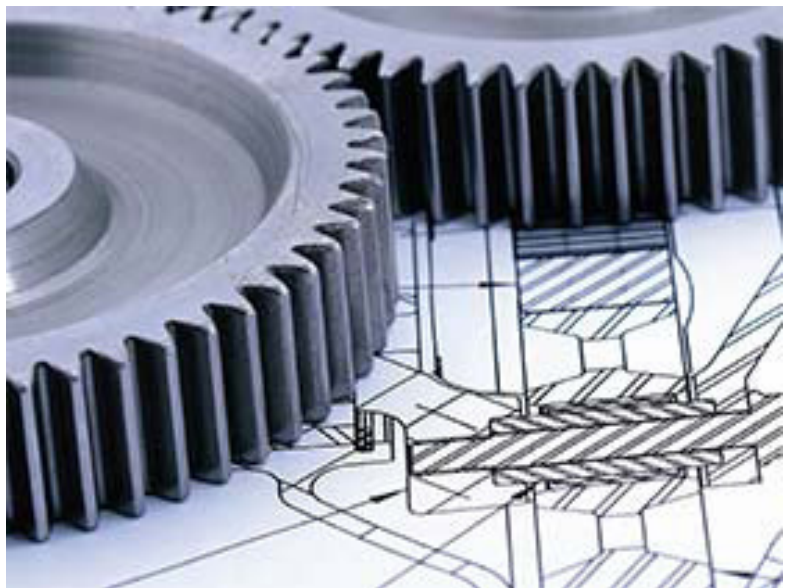
Honors Introduction to Engineering Design
(1 Credit)

Dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. In this course, you will work both individually and in teams, using 3D modeling software to design solutions to a variety of problems, and you will document a year of exploration in an engineering notebook.

Honors Principles of Engineering

(1 Credit) Prerequisite: Intro to Engineering Design

Through problems that engage and challenge, you will explore a broad range of engineering topics including mechanisms, the strength of structures and materials, and automation. You will develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

Honors Computer Integrated Manufacturing
(1 Credit) Prerequisite: Intro to Engineering Design

Manufactured items are part of everyday life, yet most of us have not been introduced to the high-tech, innovative, nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, you will learn all about manufacturing processes, product design, robotics, and automation. You can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

Project Lead the Way: Engineering Pathways

At Fitch High School, there are multiple ways to explore the exciting and dynamic world of PLTW Engineering.

2 Year Program:
Year 1: Introduction to Engineering Design
Year 2: Principles of Engineering OR
              Computer Integrated Manufacturing

Accelerated Program:
Year 1: Introduction to Engineering Design
Year 2: Computer Integrated Manufacturing
Year 3: Engineering Design and Development (Capstone)*

Sequenced Program:
Year 1: Introduction to Engineering Design
Year 2: Principles of Engineering
Year 3: Computer Integrated Manufacturing
Year 4: Engineering Design and Development (Capstone)*

projected to be offered 2022-23

"Innovation comes out of great human ingenuity and very personal passions."

-Megan Smith, 3rd Chief Technology Officer of the United States