

# CAREER AND TECHNICAL EDUCATION DEPARTMENT Junior High School



Arts & Communications



Business, Management Marketing & Technology



Health Science



Engineering/Manufacturing & Industrial Technology



Human Services



Natural Resources & Agriscience

VPAA – Meets Visual, Performing & Applied Arts Requirement

OLE – Meets Online Learning Experience Requirement

GR/MMC – Meets Graduation Requirements based on Michigan Merit Curriculum

21F – Course Available through Section 21F: Expanded Virtual Learning

## **WOOD 8** – I018

8

0.5 credit

This is a co-educational course designed to teach the principles of safety in the woodshop and the basic skills of woodworking with hand tools. These principles and skills are addressed through informational text, worksheets, lectures, and demonstrations. This course incorporates the use of mathematical skills and measurement skills. Woodshop requires proper attire.

## **WOODWORKING** (VPAA) – I010

9

1.0 credit

Students will participate in a 40-week class that explores both beginner and advanced woodworking techniques. This class will focus on general shop safety, measuring, tool identification, design features, properties of wood and wood selection, and finishing techniques. These principals and skills will be addressed by informational text, worksheets, lectures, and demonstrations. The students will be using both hand woodworking tools and power tools to construct their projects. Projects include: cutting board, bean bag toss game, side table, and chest or Adirondack chair. Students will also have the opportunity to design and build a project of their choice.

## **EXPLORATORY DESIGN & ENGINEERING I** – I227

7, 8

0.5 credit

This introductory course is designed for students who have an interest in drawing, design, and engineering. The course will provide students with fundamentals and an appreciation for the basic knowledge of mechanical, architectural, and engineering design. This course encompasses proper lettering, use of measuring scales, use of design equipment, single, multi view and isometric drawings, and basic residential design. The Engineering Design Process will be followed as students identify, analyze, predict, and test solutions to problem-based projects. The students will analyze and interpret data, construct explanations, and design solutions. This course will provide students a foundation for the Design & Engineering and Architecture programs at the high school.

**EXPLORATORY DESIGN & ENGINEERING II (VPAA) – I337**

8, 9

0.5 credit

*Pre-Requisite: Exploratory Design & Engineering I*

Exploratory Design and Engineering II will be a project-based course which will focus on skills in math, science, technology, and engineering as it applies to electric vehicles. The course will provide students with fundamentals and an appreciation for electronics, sources of energy, and mechanical design. The students will further their drafting and design skills acquired in Exploratory Design and Engineering I (EDE I). The course will encourage students to seriously consider the CTE and STEM options that exist in high school. **This semester course is available only for those students who did not take it in the 8<sup>th</sup> grade.**

**INTRODUCTION TO CONSTRUCTION TRADES (VPAA) –**

9

1.0 credit

This course is designed for grade 9 junior high students to provide insight and experience in the construction trades industry. Students will participate in entry level aspects of the construction process. The class supports students' future educational and career aspirations in the construction trades industry.