INDUSTRIAL TECHNOLOGY

AUTO MAINTENANCE

Grade Level: 10-12	Credits: 1	College Credit: No	Fine Arts Credit: No	Prerequisite: None

Students will learn the principles and parts of the automobile engine, chassis, drive trains and body. This is an introductory maintenance class, not an advanced automotive mechanics course. Students will perform routine maintenance and repairs on their own vehicle. This course will explore and provide experiences for a variety of career possibilities. There will be several hands-on competitions.

CABINETRY AND FURNITURE MAKING

Grade Level: 10-12	Credits: 2	College Credit: Yes	Fine Arts Credits: 2	Prerequisite: Wood Technology or Permission

This course gives students an opportunity to construct quality furniture of their own choice. Along with project construction study will include: skill in the operating of woodworking machines, advanced techniques in construction, finishes, plastics and computer calculations. Project examples: desk, cedar chest, gun chest, gun cabinet, vanity, kitchen cabinets.

ELECTRICITY/ ELECTRONICS

Grade Level: 10-12	Credits: 1	College Credit: Yes	Fine Arts Credit: No	Prerequisite: None

The Electricity unit is designed to give students a background in residential wiring through the use of scaled examples and lab activities. Electronics unit will cover the principles of basic electronics. Students will assemble and use lab activities to understand the basic principles of electronics such as: magnetism, circuits, transistors, and integrated circuits.

ENTREPRENEURSHIP

Grade Level: 9-12	Credits: 1	College Credit: No	Fine Arts Credit: No	Prerequisite: None

Students will learn the challenges of starting and running a business as they set up their own company for production of a product(s) for sale to earn money as they learn. Students will have experience with company structure, finances, marketing, and personnel management.

INTRODUCTION TO CONSTRUCTION

Grade Level: 9-12	Credits: 1	College Credit: Yes	Fine Arts Credit: No	Prerequisite: None

Students will be introduced to the construction field with the main emphasis on residential construction. The focus will be to provide students with basic information and skills in the construction field. Learning will include class work, visual demonstrations and project experience. Students will have a basic experience to help them continue their education in the Construction program offered through the CSEC Cooperative or a Technical/Trade College program. The class is designed to help students become more employable in the construction field.

INTRODUCTION TO METALS

Grade Level: 9-12	Credits: 1	College Credit: No	Fine Arts Credit: No	Prerequisite: None

This course is designed to develop introductory skills in arc and gas welding, lathe operations, CNC and sheet metal fabrication as related to metal production. Each student will construct a variety of projects in each area.

INTRODUCTION TO WOODS

Grade Level: 9-12	Credits: 1	College Credit: No	Fine Arts Credit: No	Prerequisite: None

This course gives an introduction to woodworking machine skill and safety. Wood materials and processes in construction will be studied while students build a simple wood project using basic construction methods.

METALS TECHNOLOGY

Grade Level: 10-12	Credits: 2	College Credit: Yes	Fine Arts Credits: 2	Prerequisite: Introduction to Metals or Permission

Each student will construct several required and self-selected projects using advanced metalworking processes. Specialized areas will include computer aided machining, and mill lathe, thermo plasma cutter, mig welding, arc and gas welding. Approximately 70-80% of the class is hands-on.

SMALL ENGINES

Grade Level: 9-12	Credits: 1	College Credit: No	Fine Arts Credit: No	Prerequisite: None

Small engines theories of operation, tools and repair procedures will be covered giving students basic knowledge of 2 and 4 stroke cycle engines. Approximately 60%-70% of the class is hands-on repairing and working in the lab. The study of power includes the study of simple machines, hydraulics, and transmissions.

WOODWORKING TECHNOLOGY

Grade Level: 9-12	Credits: 1	College Credit: No	Fine Arts Credit: No	Prerequisite: None

This class gives students an opportunity to construct a medium size wood project. Students will develop skill in operating woodworking machines, use materials, and techniques in construction of a quality wood cabinet.

Interested in a career in science, math, technology, or engineering? Check out Project Lead the Way course offerings in this registration guide.