

INDUSTRIAL TECHNOLOGY

Industrial technology can be a valuable area of study for any student. Due to the highly technical society in which we live, more and more emphasis on industrial technology is needed to maintain and improve a person's ability to deal with the impact of technology and its effects on our lives.

Students have an opportunity to explore, create, and apply their abilities in a variety of fields while maintaining a sound program of general education. Learning activities are designed to expand the student's knowledge, improve skills, and form positive attitudes in the areas of graphics, production, and energy, and power.

Foundations of Construction Technology - Grades 9-10-11-12

Semester Elective

Construction Technology is an exploratory course designed to provide instruction in the use and care of woodworking hand tools and portable power equipment. The student will also be involved with fundamental principles of construction design, fabrication, and career exploration. Activities will include construction of a model house and small woodworking project.

Students may be required to pay for certain consumable items. Prerequisites: The student should have a desire to work with wood and have a career or a vocation (hobby) interest in some phase of the area.

Foundations of Manufacturing Technology - Grades 9-10-11-12

Semester Elective

This is an exploratory class that deals with interests in the area of manufacturing. Students will have hands-on applications with tools and materials used in manufacturing.

Foundations of Engineering and Architectural Design - Grades 9-10-11-12

Semester Elective

An exploratory level course designed to introduce the learner to the tools and techniques used in the drafting/design industry. Activities provide the basis necessary for architecture and advanced mechanical drafting/design classes. Activities include mechanical, architectural problems, and CAD exercises utilizing Chief Architect 10.

Students may be required to pay for certain consumable items. The only prerequisite is an interest in technical fields of study including drafting, engineering, and architecture.

Woods I - Grades 10-11-12

Semester Elective

Prerequisites: Successful completion of Foundations of Construction Technology with a grade of "C" or better.

Woods I is a course designed to provide students with the introductory skills and knowledge needed to correctly perform woodworking operations using hand tools and stationary power equipment. Instructional emphasis is placed on the safe, proper operation and care of woodworking equipment. Activities will include design and fabrication of a woodworking project. Instruction will be given on safety and proper operation of the table saw, radial arm saw, and joiner.

Woods II - Grades 11-12

Full Year Elective/Prerequisite: Successful completion of Woods I with a "C" or better

Woods II is a course designed to provide students with advanced skills and knowledge needed to perform upper level woodworking operations using power equipment. Instruction emphasis is placed on obtaining job-related, entry-level woodworking skills. This course also provides an introduction in the use of the wood shaper, pneumatic fastening systems, the plastic laminating process, and spray finishing techniques. Activities will include a raised panel door, advanced Computer Numerical Control activities, and a large-scale project.

Beginning Welding - Grades 11-12

Semester Elective Dual Credit through ICCC

Prerequisite: Successful completion of Foundations of Manufacturing Technology with a "C" or better and Guidance Approval

The beginning welding course offers students instruction in flat and horizontal position welding. The welding process covers Shielded Metal Arc Welding (AC-DC), Gas Metal Arc Welding (MIG), Oxy-Acetylene Cutting and Welding, braze welding, plasma arc cutting, and Gas Tungsten Arc Welding.

Residential Drafting and Design - Grades 10-11-12

Full Year Elective

Prerequisite: Foundations of Engineering Graphics and Design with a "C" or better.

An intermediate level course designed to introduce the learner to (1) design considerations, (2) construction practice, and (3) factors to consider in the purchase of a home. The learner will have the opportunity to develop skill in the making and reading of construction documents by completing a full set of CAD produced prints utilizing Chief Architect 10. Classroom organization and activities will familiarize the learner with architectural practices and procedures.

Adv. Architectural Drafting and Design - Grades 11-12

Full Year Elective

Prerequisites: Residential Drafting and Design with a "C" or better

An advanced level course designed to further refine the skills developed in Residential Drafting and Design. Activities stress board and CAD skills and the development of architectural presentation. Commercial design experiences will be gained through the design team process. Teamwork, cooperative learning strategies, problem solving approaches to design problems, and employment experience opportunities will be provided. This course will continue to emphasize math, science, and language arts concepts with experiences in specialized applications.