



**COURSE DESCRIPTIONS
INDUSTRIAL TECHNOLOGY**

All technology classes are co-educational and meet the career related graduation requirement. Students are encouraged to challenge stereotypes and enroll in classes where their sex is under-represented.

AUTO

Basic Auto

IA710

Grades 9-12

Year

This entry-level course (exploratory) demonstrates and uses work on automobiles to teach students basic maintenance skills, while introducing them to the major systems common to all vehicles. The class includes units on tires, lubrication, electrical, brake, fuel and cooling systems, as well as trouble-shooting and the use of state of the art diagnostic equipment. Also included is a unit on what to look for in purchasing a used car. While this course is required for students who wish to take automotive occupations classes, it is designed for students with no knowledge of how automobiles as well. The goal of the course is to give students enough background to enable them to communicate effectively with Technicians when having work done. This course is highly recommended for students who plan to purchase a car in the future. Opportunity for field trip to NHRA Career Fair and U.T.I.

Automotive Occupations I

IA711

Grades 10-12

Year

Prerequisite: Successful completion of Basic Auto with a grade of "C" or better or teacher recommendation.

Students will work on actual cars to learn how to perform various maintenance tasks and repairs, using modern diagnostic equipment. Students are also introduced to basic collision repair. Opportunity for field trips available.

Automotive Occupations II

IA712

Grades 11-12

Year

Prerequisite: Successful completion of Auto Occupations I with a grade of "C" or better or teacher recommendation.

Curriculum includes engine overhaul, front-end alignment, collision repair, transmission removal and clutch work. Opportunity for field trips available.

Automotive Occupations III

IA713

Grades 11-12

Year

Prerequisite: Successful completion of Auto Occupations II with a grade of "C" or better or teacher recommendation.

Building on Courses I and II. This class involves advance repair and maintenance techniques, including the use of the Sun Interrogator II, electronic wheel balances, steam cleaner, industrial hot tank and various removal equipment. Opportunity for field trips available. This class can lead to advance placement at Citrus College.

Successful completion of this course would prepare students to work as a job entry attendant in full-service gas station, drive-through tune-up/lube shop, automotive parts attendant and other services. A large percentage of these students who complete this course are accepted to Colleges/Technical Automotive Schools.



DRAFTING

Basic Drafting

IA706

Grades 9-12

Semester

This entry-level course is designed to introduce students to: lettering, reading and interpreting scales, drawing geometric shapes, line construction, two-and-three view drawing, isometric drawing and dimensioning. Students will also learn the identification and care of drawing equipment.

Drafting Occupations I

IA707

Grades 10-12

Semester

Prerequisite: Successful completion of Basic Drafting with a grade of "C" or better or teacher recommendation.

Building on the introductory course, this class introduces students to basic architectural drafting, floor plan, plot plan, wall sections, and elevation drawings.

Drafting Occupations II

IA708

Grades 11-12

Semester

Prerequisite: Successful completion of Drafting Occupations I with a grade of "C" or better or teacher recommendation.

Students are introduced to skills needed for developing working drawings, pictorial drawings, cams and gears and descriptive geometry. Course also includes an introduction to computer assisted drafting.

Drafting Occupations III

IA709

Grades 11-12

Semester

Prerequisite: Successful completion of Drafting Occupations II with a grade of "C" or better or teacher recommendation.

Students learn advance techniques involved in architectural and computer-assisted drafting, as well as advanced mechanical, working and pictorial drawing techniques.

This is a project-oriented course for students who have the maturity to work independently. Successful completion of this course will prepare students for entry into a certificate or degree program in a community college (e.g., Citrus College) or in a state university (e.g., Cal Poly). Students will also be prepared for entry-level jobs in architectural or engineering firms. (advancement beyond an entry-level position would require additional training or schooling). Azusa High School has 2+2+2 agreement with Citrus College. When a student completes the four-semester program at Azusa High School, they are eligible for the Citrus College Certificate Program with the equivalent of six college units. No basic remediation will be needed at college entrance.

WOOD

Basic Wood

IA702

Grades 9-12

Semester

This course is designed to introduce the fundamental skills of safe and proper use of hand and power tools and machines, measurement and layout tools, joint construction, gluing and clamping, fasteners, abrasives, print reading, and assembly of basic wood projects.

Wood Occupations I

IA703

Grades 10-12

Semester

Prerequisite: Successful completion of Basic Wood with a grade of "C" or better or teacher recommendation.

This course is designed to reinforce fundamental skills learned in Basic Wood Construction Technology and to introduce concepts and procedures involving finishes and coatings, materials, veneers,



construction estimating, hardware applications, mass production, interior finishing and construction management skills.

Completion of Basic Wood and Wood Occupations I with a "C" or better in each fulfills one year of the math graduation requirement (see Board minutes for March 6, 1990). Note: Students do not receive 10 units of math credit under this program but, instead, have one year of the math graduation requirement waived.

Wood Occupations II

IA704

Grades 11-12

Semester

Prerequisite: Successful completion of Wood Occupations I with a grade of "C" or better or teacher recommendation.

This course is designed to reinforce the fundamental skills learned in Basic and Wood Construction Technology Occupations I and to introduce new concepts and procedures involving plastic laminates, computer applications, new and emerging technologies, repair and refinishing, inlaying, fiberglass mold development, boat building, laminating and bending, upholstery, wood carving, the history of furniture, the European system and stage technology.

Wood Occupations III

IA705

Grades 11-12

Semester

Prerequisite: Successful completion of Wood Occupations II with a grade of "C" or better or teacher recommendation.

This course is designed to reinforce skills learned in Levels I and II and to introduce new concepts and procedures involving residential management, plaster, compressor and pump operation, ditching, earth moving equipment, hoisting, landscape design, building maintenance, zones and codes, surveying, leveling, foundations, walls and partitions, roofing and roof-framing systems, welding, electrical wiring, exterior finish, floor covering, metal construction, heating and cooling, plumbing, masonry and concrete, insulation and glazing. Successful completion of this course would prepare students for entry into a construction apprentice program. Students would also be prepared for cabinet and milling programs offered at the community college level (e.g., Mt. Sac, L.A. trade Tech) and construction management programs available through state universities (e.g., Cal State L.A., Cal State Long Beach, Cal Poly).