

## INDUSTRIAL TECHNOLOGY

### CONSTRUCTION TECHNOLOGY (CTEC)

**101. Construction Industry Systems.** Credit 3 hours. A study of construction systems providing an understanding of how construction impacts life, socially and professionally. Industry fundamentals through analysis of architectural and engineering plans, specifications, and documents used in the planning, bidding, pre-construction, construction, and closeout phases of a typical construction project.

**111. Construction Graphics.** Credit 3 hours. An introduction to construction graphics the reading of blueprints; covering types of construction, specifications, site work, structural steel construction, reinforced concrete construction, mechanical and electrical systems, and finish construction.

**121. Construction Materials.** Credit 3 hours. Prerequisite: CTEC 111. An introduction to construction principles, materials, and methods in the construction industry. graphics: covering site work, concrete, masonry, metals, wood, plastic, doors and windows, and finishes. Two hours of lecture and two hours of laboratory per week. Laboratory fee: \$10.00.

**171. Survey Principles.** Credit 3 hours. Prerequisite: CTEC 111 and IT 111. Theories and principles of traditional and state-of-the-art techniques in surveying as applied to the construction industry. Two hours of lecture and two hours of laboratory per week. Laboratory fee: \$10.00.

**201. Project Management.** Credit 3 hours. Prerequisite: CTEC 101. An introduction to project management: covering human relations, labor law and relations, problem solving and decision making, construction planning, project scheduling, and quality control.

**202. Project Supervision.** Credit 3 hours. Prerequisite: CTEC 121. An introduction to project supervision: covering orientation to the job, construction documents and documentation, cost awareness and control, resource control, and safety.

**203. Computer Planning and Scheduling.** Credit 3 hours. Prerequisites: Credit for or enrollment in CTEC 202 and 271. Analysis and application of scheduling techniques. The use of critical path method (CPM), program evaluation and review (PERT), and PRIMAVERA.

**271. Construction Estimating I.** Credit 3 hours. Prerequisite: CTEC 121. An introduction to residential construction estimating: covering construction estimating, productivity records, cost accounting, project owner's estimate, pre-construction design estimates, detailed construction estimate, quantity surveying, how to determine direct cost for the project, and integrating estimating with project planning and control.