

Building Construction Technology Course Descriptions

BCT 162: Supervised Occupational Experience (3)

Credits Prerequisite: Sophomore Status Minimum of 2.00 GPA

This is a vocational strategy that integrates on-campus classroom study with off-campus work experience. It provides a balanced approach to learning and career development. The student will gain practical work experience that is closely related to their career interests and their major field of study. (The employer *may* pay a training wage.)

BCT 176: Job Preparation (3)

Prerequisite: None

This course is designed to equip student with job search procedures, resume writing, cover letter, interviewing skills and various job applications.

BCT 196, 197, 198, 199: Cooperative Education (1-4)

Credits Prerequisite: Director Approval

These courses are designed to allow students to earn credit while working and going to school. Students receive on-the-job experience related to their field of study. Courses offered under Cooperative Education will be taken for satisfactory/unsatisfactory grade.

BCT 281, 282, 283, 284: Individual Studies (1-4)

Prerequisite: Department approval

These courses are designed to allow students to conduct individual research and/or projects for credit while under the supervision of a faculty member from the department.

BCT 296, 297, 298, 299: Special Topic (1-4)

Prerequisite: None

These courses are designed to allow flexibility in the department. New courses may be introduced under Special Topics. Courses offered under Special Topics will be taken for pass/fail.

BCT 100: Core Curriculum (3)

The Core Curriculum consists of eight modules which are: “Basic Safety,” “Introduction to Construction Math,” “Introduction to Hand Tools,” “Introduction to Power Tools,” “Introduction to Blueprints,” “Basic Rigging,” “Basic Communication Skills,” and “Basic Employability Skills”. This course is a prerequisite course for all of the NCCER “Craft Level Training,” (regardless of the craft).

BCT 104: Construction Blueprint Reading (3)

This course will provide the student with knowledge and skills needed to interpret the abbreviations, symbols, lines, and different working drawings in a set of working drawings used in residential construction. Students will learn to use specifications used in conjunction with a set of working drawings.

BCT 110: Construction Math (3)

This course provides instruction to prepare students with the needed knowledge and skills used in the construction fields, using construction related math problems. The course includes the use of math solutions to calculate areas, volumes, lengths, angles, percentages, material amounts, and costs in relationship to building construction. Students will do all aspects of math calculations involved in residential construction.

BCT 115: Site Layout and Concrete Form Construction (3)

This course provides instruction and hands-on experience in the preparation of a building site; instruction will include building layout, establishing building lines, erecting batter boards, erecting footing forms, slab on grade forms, concrete reinforcement and foundation forms when applicable.

BCT 118: Residential Drawing, Sketching, CADD (3)

This course will provide students with knowledge and skills needed to be a responsible employee on a construction jobsite. Included in this course are modules including, Human Relations, Safety, Problem Solving, Contract and Construction Documents, Scheduling, and other related responsibilities.

BCT 120: Framing Principles and Methods (3)

This is a comprehensive course with instruction on the study of techniques and practices required for successful employment as a framing carpenter. Areas of study will include floor framing, wall framing, roof framing, stair construction and specialty framing.

BCT 125: Framing Shop I (6)

This shop course provides instruction and hands-on experience in numerous construction methods such as floor, wall, roof, and stair framing, applying the techniques and practices learned in 120 Framing Principles and Methods. Students will have hands-on experience building a complete residential home as a class project.

BCT 130: Exterior Finish Theory and Shop (4)

This course provides instruction in theory and hands-on application experience in the installation of the various types of exterior finishes, including exterior wall finishes, roof finishes, exterior doors and windows.

BCT 135: Framing Shop II (6)

This course is a continuation of framing shop I. Activities will be center around interior and exterior framing during the actual construction of a house as a class project.

BCT 142: Specialty Buildings & Construction Methods (3)

This course will provide students with knowledge of the different types of structural buildings, their components, and methods of construction. They will include pole frame construction, metal building construction, rigid frame construction, post and beam construction, structural panel construction and new types of construction.

BCT 144: Construction Estimating (3)

This course is an introduction to residential material and labor estimating. The basic principles of construction estimating are covered. Materials list, calculations and cost are made for a residential home and other small framed structures.

BCT 145: Interior Finish Theory and Shop (6)

This course will provide knowledge and hands-on experience in interior finish materials and interior finish applications interior door installation, trim installation, and kitchen cabinet and countertop installations.

BCT 146: Job Site Responsibilities (3)

This course will provide students with knowledge and skills needed to be a responsible employee on a construction jobsite. Included in this course are modules including, Human Relations, Safety, Problem Solving, Contract and Construction Documents, Scheduling, and other relate responsibilities.

BCT 150: Cabinet Theory and Shop (3)

This course will provide instruction and hands-on experience in the use of the different hand tools and power equipment used to make the different cuts and joints used in cabinetry. Students will each construct a cabinet as a student project for a final grade.

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BCT 222: Construction Safety (2)

This course is a study of safety methods and materials for building construction. Students will study current OSHA practices and requirement for the building process and site. Upon completion students will receive a 30- hour OSHA certification card in construction safety and health.

BCT 203: Leadership Techniques II (2)

Prerequisites: None

This course provides students with the opportunity to develop or enhance their leadership styles and techniques. This course Prepares students for a variety of career areas with specific emphasis in the areas of management and entrepreneurship. Example topics include, but not limited to: employee motivation, business ethics, and self-managing work teams.