Construction Technology

Program Description
Construction Trades offers a series of carpentry courses. Basic Construction Skills (CT 104), Beginning Construction (CT 110), and Building Green 1 and 2 are open to all students.

The advanced Construction Technology carpentry courses—Beginning Construction Trades (CT 111), Framing (CT 112), Roof Framing (CT 113), Beginning Finish Carpentry (CT 114), Intermediate Finish Carpentry (CT 115), Blueprint Reading (CT 116), Measuring and Calculating (CT 118) and Construction Remodel (CT 119)—are designed for students who have completed CT 110 or those with a minimum of one year of carpentry experience. Work Experience in Construction (CT 290) combines on-the-job training with classroom instruction.

Santa Barbara City College (Division of Apprenticeship Standards, Electricians Certification Unit-Approved School #138) offers four Electrician Trainee courses as a “partial” General Electrician curriculum. The courses—Blueprint Reading for Electricians, Electrical Mathematics and Introduction to National Electrical Code—are designed for students working as electricians who want to prepare for the state certification exam and those required to be enrolled in order to continue working for a C-10 electrical contractor’s license.

For further information concerning the carpentry courses or the Electrician Trainee courses, contact Patrick Foster at 455-3187.

Faculty and Offices
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Course Descriptions

CT 110 — Beginning Construction
(4.7) F — CSU
Skills Advisories: None
Introduction to construction skills and concepts, with emphasis on residential wood construction. Designed for entry-level students interested in a career in the building trades. Topics include safety, planning, foundation, floor framing, wall framing, roof framing and siding.

CT 111 — Beginning Construction Trades
(4.7) — CSU
Introduction to basic construction skills and concepts of the sub-trades involved in residential wood construction: concrete work, roofing, sheetrock, insulation, plumbing and electrical. Overview of trades, designed for students interested in a career in home construction.

CT 112 — Framing
(3) F, S — CSU
Intermediate-level class in rough framing skills and concepts in residential wood construction. Designed for continuing students who have taken CT 110 and for carpenters with some experience in residential framing. Topics include safety, foundations, framing hardware, exterior siding, special wall construction, stair framing and special topics in framing.

CT 113 — Roof Framing
(3) S — CSU
Skills Advisories: Eligibility for ENG 100
Intermediate-level class in rough framing skills and concepts in residential wood construction, with emphasis on roof framing. Designed for continuing students who have taken CT 110 and for carpenters with some experience in residential framing. Topics include safety, layout, rafter design, rake walls and cornice treatment.
**CT 114 — Beginning Finish Carpentry**  
(3) F, S — CSU  
*Course Advisories: None*

Introduction to finish carpentry, with emphasis on residential wood construction. Designed for students who have already taken CT 110 or who have some prior experience in carpentry or construction. Topics include safety, tool care, door hanging, door and window easing, baseboard, crown molding, flooring, and close shelf and pole.

**CT 115 — Intermediate Finish Carpentry**  
(3) F, S — CSU  
*Skills Advisories: Eligibility for ENG 100*

Intermediate finish carpentry, with emphasis on residential wood construction. Designed for students who have taken CT 110 or who have some prior experience in carpentry or construction. Topics include cabinet installation, cabinet construction, built-ins, paneling and wainscoting.

**CT 116/DRFT 103 — Blueprint Reading**  
(3) F, S — CSU  
*Course Advisories: Eligibility for ENG 100*

Introduction to blueprint reading in residential construction. Topics include understanding the uses of blueprints, types of plans, drafting conventions, contents of plans, focus on floor plans, elevations and sections, using the architectural scale, drafting simple plans, and shop drawings from plans.

**CT 118/DRFT 102 — Measuring and Calculating**  
(3) F, S — CSU  
*Skills Advisories: MATH 1*

Introduction to measuring and calculating used in residential wood construction. Topics include working with common and decimal fractions, using the standard tape measure, using a calculator for construction, estimating material, understanding the special triangles used in roof rafter calculations, rafter length calculation, and stair stringer calculation.

**CT 119 — Construction Remodel**  
(4.7) F — CSU  
*Skills Advisories: Eligibility for ENG 100*

Theory and skills for residential home remodeling. Designed for continuing students who have taken CT 110 and for carpenters with some experience in residential construction. Topics include design, planning, demolition, tie-in, green applications and safety.

**CT 120A — Building Green I**  
(4) F, S — CSU

Overview of Green Building approach and coverage of sustainable design, planning and construction, including site protection, water conservation, energy efficiency, solar heating and PV.

**CT 120B — Building Green II**  
(4) F — CSU

Overview of Green Building approach and coverage of sustainable design, planning construction, including material efficiency, deconstruction, reuse, recycling, insulation, indoor air quality and alternative building techniques.

**CT 121 — Blueprint Reading for Electricians**  
(3) F, S — CSU  
*Skills Advisories: Eligibility for ENG 100 and ENG 103*

Overview of blueprints, plans and specifications; symbols used in electrical-related trades; preparation and use of as-built drawings, wiring and line diagrams, schematics and ladder diagrams. Approved School #138 for California Electrician Trainees.

**CT 153 — Electrical Mathematics**  
(3) F, S  
*Skills Advisories: MATH 1*

Basic mathematics and its application to electrical and other technologies. Topics in arithmetic, common fractions, decimal fractions, percentages, graphs, measurement and introduction to algebra are covered. Approved School #138 for California Electrician Trainees.
CT 194 — Introduction to National Electrical Code  
(3) F, S  
Skills Advisories: Eligibility for ENG 100 and 103  
Layout and content of the National Electric Code. Purpose, intent and scope of electrical codes, as well as utilization and application. Also includes use of the Code for calculations and hazardous locations. Approved School #138 for California Electrician Trainees.

CT 196 — Jobsite Management  
(3) F, S — CSU  
Skills Advisories: Eligibility for ENG 100 and 103  
Introduction to jobsite supervision in the construction industry. Includes industry organization, documentation and record keeping, personnel and financial management, as well as job planning and safety. Approved School #138 for California Electrician Trainees.

CT 290 — Work Experience in Construction  
(1 – 4) F, S — CSU  
Skills Advisories: None  
Work experience on a construction job or project, plus attending one orientation and a monthly meeting. Students perform assigned responsibilities as an employee, follow employer’s rules, regulations and policies, write learning objectives, keep a record of time worked on a student data sheet, and secure employer’s evaluation at the end of the semester.