

CARPENTRY-HOME FRAMING (@ FOSSIL RIDGE HIGH SCHOOL)

THE HIGH SCHOOL PROGRAMS AT FRONT RANGE COMMUNITY COLLEGE

Welcome to Carpentry and Home Framing! This program is designed to prepare students for employment as an entry-level or pre-apprentice carpenter. It also provides construction background for students interested in the Architectural Engineering and Construction Technology Program at FRCC and/or the Construction Management Program at CSU.



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Web Page: <http://www.frontrange.edu>

(click on Academics, click on Larimer HS Programs)

Lecture-to-Lab Ratio: 60/40

Poudre School District Credits: 26 electives

Thompson School District Credits: 2.6 electives

FRCC College Credits: 6 (optional)

Time Offered: Monday-Friday; 8:00-10:00 a.m. or 12:30-2:30 p.m.

Eligible Grades: Juniors and Seniors

Mid-year entry: No

Program Description

This program is fun, fast-paced, exciting, and engaging! Students acquire diversified skills and are prepared for a variety of career paths in this industry. Some of these skills include residential framing, finish carpentry, exposure to electrical work, remodeling, general carpentry, drafting, sketching and estimating.

Speaking of jobs, there are many high-paying jobs in the construction industry for hard-working, motivated men and women. There is currently a severe shortage of workers in the construction field. This places the student in a very desirable position for gaining employment - especially a student with some skills and background in the field.

One exciting aspect of this program is the participation from local companies. Several local businesses loan their employees to our class to teach students the skills involved in what they do and how to pursue a career path in that field. Students from class have even been hired for full time jobs from this experience! Two of these companies are Interstates Construction Services and Sears Trostel.

CARPENTRY-HOME FRAMING (@ FOSSIL RIDGE HIGH SCHOOL) (continued)

Program Description (continued)

Students begin the program by learning how to properly use hand tools. You have to be able to use a hand saw, plane, chisel, square, level, plumb bob and more. Then we progress to a variety of hand power tools and then on to stationary tools and machines. We learn to use hand and power tools by building tool boxes to precise measurements as well as work benches that you get to keep. Then we progress to a variety of hand power tools and then on to stationary tools and machines.

This program will place strong emphasis on the "house-as-a-system" philosophy of building a new home, which results in optimal home performance and efficiency (building high-performance residential homes). Students are taught using a modular concept - moving quickly from a classroom setting to building an indoor, small-scale laboratory module and transitioning to a larger, outside construction area where students will build larger, fixed structures. Proper installation techniques, design and terminology will be strongly emphasized. Students must arrive early to class each day and prepare to work two hours each day/10 hours per week in all types of weather conditions.

This program has a heavy emphasis on residential framing. The program is designed to provide students with an understanding of the materials and processes used in constructing and designing new residential homes. Furthermore, students will begin to formulate an awareness of resources used in residential construction and begin to understand how each system in the home impacts the others; i.e., foundations/footings, floor systems, wall systems, roof systems, insulation techniques (energy-performance ratings), window systems (high-performance ratings), job estimating and scheduling, finish carpentry, reading basic blueprints. Student safety is a major part of this course - a "safety-first" philosophy is instilled in *every* aspect of the curriculum. Students will work with production woodworking machinery and power hand tools. Special emphasis will be placed on related, applied construction math, two and three-dimensional thinking, practice of sketch thinking and sketch layout, related computer literacy skills, critical thinking, problem solving, communication skills, working with sub-contractors and job-readiness skills (social skills, teamwork, diversity in the work place, regular attendance, conflict resolution, etc.). Professional workplace and employment skills are taught throughout the year.



Recommended Academic Prerequisites

Construction I and II, Basic Architectural Drawing I, Principles of Technology I or Applied Physics and Technology. Proficiency in reading, writing and speaking the English language is expected.

Dual Credit (optional)

Students have the opportunity to earn FRCC college credit for CAR 133 (4 credits) and AEC 122 (2 credits) in this program. Students must submit an application packet and meet FRCC assessment requirements prior to the first day of class.

Additional Costs/Commitments

- This program is located off campus at Fossil Ridge High School in southeast Fort Collins; bus transportation is provided from most, but not all, high schools.
- Students may also incur some travel costs for off-site field trips. Students will need to provide their own transportation for some field trips and job/sites.
- Good physical shape is important - standing, climbing, lifting, bending, and kneeling are necessary parts of the program.
- *Students must provide proof of health insurance.*