SANTA ROSA CITY SCHOOLS
Excellence is our Common Ground

Santa Rosa City Schools Course Proposal

Construction 2

Proposal Submitted By: Matt O'Donnell

1) Needs Statement: Discuss how this course fits into your Site and/or the District's goals. Attach minutes of meetings where this course was approved at site or district leadership meetings.

Santa Rosa High School is expanding Career Technical Education offerings in the **Building and Construction Trades** to provide students with clear pathways to **livable-wage, high-demand** careers in our region. *Construction* 2 is the **second course in a two-year sequence** that aligns with SRCS goals to increase **A-G completion, CTE pathway completion, and college/career readiness** for all students. The course delivers **hands-on, standards-aligned** instruction in construction safety, blueprint reading, measurement, framing, concrete, drywall, plumbing, and electrical systems, while integrating **Common Core Mathematics and English Language Arts** and the **California CTE Building and Construction Trades Anchor and Pathway Standards**. Students develop foundational technical and employability skills, earn **OSHA-10** certification, and participate in **work-based learning** with local industry partners, supporting equitable access to postsecondary programs and **registered apprenticeship** opportunities.

To ensure transferability and streamline local approval, this course adapts an **existing UC "a-g" approved (G) elective** syllabus to SRHS facilities, schedules, and community partnerships. Adoption advances District priorities around **college and career readiness**, **industry-aligned pathways**, and **regional workforce needs** identified by local employers and labor market data.

This course was approved by the SRHS Building and Construction Trades Industry Advisory Board unanimously via email from 9/7/2025 to 9/17/2025. Attached is a PDF of the email thread. Advisory Course Approval.pdf

This course was also discussed at the CTE Dept. Chair meeting on 11/17/25.

2) Graduation Requirements: Specify which requirement is met.(High School only)

A—G Elective (pending UC approval) and CTE

3) UC a-g Requirements: Specify which requirement is met. (High School only)

College-Preparatory Elective (G) - pending UC approval

4) Explain the rationale for course addition or modification. How does this fit in with district/site goals. If this course is replacing a current course, which course is it replacing and why? Will this course require new sections? Be explicit.

Construction 2 will serve as the capstone (year 2 of 2) in the Building and Construction Trades Career Technical Education pathway. It **replaces "Advanced Cabinetry."** Shifting from a single-trade focus (cabinetmaking) to a multi-trade construction concentrator aligns the program with **regional high-demand, higher-wage** employment in residential and commercial building, expands students' options for **registered apprenticeships**, and strengthens preparation for industry certifications and work-based learning.

This course advances district/site goals to expand **high-quality, UC "g"-approved** Career Technical Education that integrates Common Core Math and English Language Arts, emphasizes safety and employability skills, and increases equitable access to **livable-wage** career pathways. It builds directly on Construction 1 and creates a **coherent, vertically aligned** 2-course sequence culminating in a capstone and internship.

Sections/FTE: Existing **Advanced Cabinetry** section(s) will be **converted to Construction II** for the coming year; **no additional FTE** is required at this time.

5) Explain the measurable learning outcomes

Upon completion of the course, students will be able to:

- ***Practice jobsite safety and professionalism***
  - *Pass written and hands-on safety assessments with a score of **85 percent or higher**.*
  - *Select and use correct personal protective equipment for **five of five** task scenarios with **zero critical safety violations**.*
  - *Lead a five-minute tailgate safety talk that meets **8 of 10** rubric criteria (hazard ID, controls, tools, sequencing, audience checks).*

- ***Plan work, read drawings, and estimate***

- *Interpret residential plan sets (site, foundation, floor, wall, roof, window and door schedules) and identify **25 standard symbols** with **90 percent accuracy**.*
- *Create a bill of materials from drawings whose actual usage is within **plus or minus 10 percent** of the estimate for three separate projects.*
- *Produce a one-page change-order request and a request-for-information memo that meet **8 of 10** professional-writing criteria (purpose, clarity, dimensions, code reference, tone).*

- ***Measure, lay out, and verify***
  - *Establish benchmarks, string lines, and control points; transfer elevations with a builder's level or laser level within **plus or minus 1/8 inch over 30 feet**.*
  - *Lay out right angles using the 3-4-5 method; diagonals differ by **no more than 1/8 inch** on an 8-by-12-foot rectangle.*
  - *Convert between fractional, decimal, and metric units and compute area, perimeter, volume, pitch, and slope with **90 percent accuracy** on mixed problems.*

- ***Concrete, masonry, and foundations***
  - *Read a foundation plan and place forms square and level within **plus or minus 1/8 inch**; set anchor bolt locations within **plus or minus 1/4 inch** of plan.*
  - *Place reinforcement per detail and demonstrate proper consolidation, finishing, and curing; slab sample meets **8 of 10** finishing-quality criteria (edges, flatness, surface).*
  - *Calculate concrete volume and waste allowance; final pour quantity within **plus or minus 10 percent** of estimate.*

- ***Floor framing***
  - *Lay sill plates, rim joists, and joists at the specified on-center spacing; crown joists and install blocking; floor system is level within **plus or minus 1/8 inch over 10 feet**.*
  - *Fasten per schedule (type, length, spacing) with **zero** missed structural fasteners in a **30-fastener** check.*
  - *Write a short reflection connecting framing choices to span tables and load paths; earns **4 of 5** rubric points.*

- ***Wall framing***
  - *Frame straight, plumb walls with door and window openings to plan; studs and headers located within **plus or minus 1/8 inch**, walls plumb **plus or minus 1/8 inch over 8 feet**.*

- *Install headers, king and jack studs, cripples, and rough openings to manufacturer specifications; opening size within **plus or minus 1/8 inch** of callout.*
- *Pass a tool identification and use check on **20 common tools** with **90 percent accuracy**.*

- ***Roof framing***
  - *Compute rafter length and seat/plumb cuts from given pitch; lay out and cut two common rafters that fit flush at ridge and plate with gaps **no greater than 1/8 inch**.*
  - *Assemble a small roof mock-up (common rafters or a truss set) that is square within **1/8 inch** on diagonals and meets **85 percent** of structural-layout rubric items.*
  - *Produce a roof material takeoff (sheathing, underlayment, fasteners) within **plus or minus 10 percent** of actual usage.*

- ***Windows and exterior doors***
  - *Flash rough openings, install units plumb, level, and square (diagonals within **1/8 inch**; reveal consistent within **1/16 inch**), and verify smooth operation on first inspection.*
  - *Integrate weather-resistive barrier and flashing per manufacturer instructions; installation meets **8 of 10** water-management rubric criteria.*

- ***Electrical wiring (introductory residential)***
  - *Plan and install a branch circuit with a switch, light, and receptacle that passes polarity, continuity, and ground-fault tests on first inspection.*
  - *Calculate box fill and basic load for a small room within **plus or minus 5 percent** of instructor key and terminate conductors to devices using correct methods **100 percent** of the time.*
  - *Document the circuit with a neat as-built diagram that meets **8 of 10** drafting and labeling criteria.*

- ***Plumbing systems (introductory residential)***
  - *Lay out and assemble drain-waste-vent with a slope of **1/4 inch per foot plus or minus 1/16 inch**, correct fitting orientation, and proper support spacing.*
  - *Sweat or press-connect two copper joints and solvent-weld two plastic joints that pass a **10-minute** static leak test at classroom test pressure with **zero** leaks.*

- *Create a fixture rough-in checklist and complete it with **100 percent** of required fields.*

- ***Heating, ventilation, and air conditioning basics***
  - *Size and lay out a simple supply branch using manufacturer tables; compute equivalent lengths and fittings with **90 percent accuracy**.*
  - *Install and seal a short flex-duct run with supports and mastic meeting **8 of 10** quality items (radius, sag, sealing, strap spacing).*

- ***Exterior wall finish***
  - *Install a weather-resistive barrier with correct lap and integration at penetrations; apply siding to manufacturer fastener schedule; panel joints land on studs **100 percent** of the time.*
  - *Complete an exterior mock-wall that earns **85 percent or higher** on the exterior finish rubric (layout, fastening, detailing, aesthetics).*

- ***Insulation and sound control***
  - *Select insulation to meet a specified California Title 24 energy code requirement and install batts for full, six-sided contact with **zero** voids on visible inspection.*
  - *Compare materials by R-value, cost, and environmental impact in a one-page analysis that meets **8 of 10** technical-writing criteria.*

- ***Interior wall finish (drywall)***
  - *Hang drywall with correct fastener spacing (walls **12 inches** maximum, ceilings **8 inches** maximum), seams centered on framing, and minimal butt joints.*
  - *Tape and finish to a **Level 4** finish that earns **8 of 10** on the finishing rubric (feathering, seams, corners, fastener concealment, surface readiness).*

- ***Interior doors and trim***
  - *Hang a prehung interior door plumb and square; gaps and reveals consistent within **1/16 inch**; latch and strike align and operate smoothly.*
  - *Install casing and baseboard with tight miters and scarf joints (gaps **no greater than 1/32 inch**) and fastener pattern per standard practice.*

- ***Career readiness and communication***
  - *Produce a one-page resume, a professional email (change order or clarification request), and a three-minute career presentation; each earns **85 percent or higher** on the communication rubric.*

- *Complete a mock interview scoring **3 or higher on a 4-point** rubric across professionalism, clarity, and technical vocabulary.*

- ***Portfolio and reflection***
  - *Compile a complete portfolio (estimates, drawings, checklists, rubrics, photos, certificates, reflections) that is **100 percent complete** per the portfolio checklist and includes a reflective summary connecting evidence to pathway standards.*

6) Course Description (To be used in the course catalog)

Construction 2 is the capstone course in the two-year Building and Construction Trades pathway. Building on Construction I, this year-long class deepens students' skills in site layout, foundations, floor and wall framing, roof construction, electrical and plumbing rough-in, HVAC basics, windows and doors, insulation, drywall, siding, and finish carpentry. Math, science, and English Language Arts are embedded through blueprint reading, quantity takeoffs and estimating, code and safety documentation, technical writing, and professional presentations. Students strengthen workplace communication, leadership, and teamwork while producing a portfolio of competencies, a polished résumé, and mock-interview artifacts. Learning is hands-on and project-based, with industry guest speakers and feedback from professionals. Recommended for grades 10–12; prerequisite is Introduction to Construction or instructor approval. *(UC a-g: "g" College-Preparatory Elective; CTE—Building and Construction Trades.)*

Detailed Course Design

(Course design should include the objectives, activities, assessments, and standards to be addressed in this course.)

Unit 1: Introduction and Orientation (Weeks 1-2)

Objectives

- Describe course structure, safety expectations, grading, and professionalism norms in construction workplaces.
- Identify major careers in the construction trades and the competencies required for entry into apprenticeships and postsecondary programs.
- Set up a personal competency portfolio and tracking system for evidence of learning.

Activities and Assessments

- Course overview and norms workshop; professionalism case studies and discussion.
- Workforce preparedness activity: time management, attendance, and communication scenarios; reflection.
- Career exploration presentation: research a trade, training pathway, wages, and advancement; present to class.
- Portfolio setup: organize sections for safety, measurement, framing, systems, finishes, and reflections.
- Assessments: professionalism quiz; presentation rubric; portfolio checklist.

Standards Alignment

- **CTE Anchor Standards (Building and Construction Trades):** 2.0, 3.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0
- **CTE Pathway Standards — Residential and Commercial Construction (D):** D1.0, D2.0, D3.0, D11.0
- **Common Core Mathematics:** Number and Quantity — Quantities (N-Q.1-3)
- **Common Core English Language Arts/Literacy:** RST.11-12.1, RST.11-12.4; WHST.11-12.2, WHST.11-12.4, WHST.11-12.7; SL.11-12.1, SL.11-12.4; L.11-12.1, L.11-12.2
- **California Career Ready Practice Standards:** 1, 2, 3, 4, 7, 8, 9, 10, 11

Unit 2: Career Exploration and Planning (Weeks 3-4)

Objectives

- Draft a professional résumé and cover note tailored to a construction role.
- Practice interviewing skills and receive feedback from industry partners.
- Build an individual career and education plan aligned to local apprenticeship standards.

Activities and Assessments

- Résumé workshop; peer and instructor edits; finalize document.
- Mock interviews with industry guests; performance feedback and self-evaluation.
- Construction pathway presentation: compare apprenticeship programs, community college options, and certifications.
- Assessments: résumé rubric; interview rubric; presentation scoring; written career plan.

Standards Alignment

- **CTE Anchor:** 2.0, 3.0, 5.0, 7.0, 8.0, 9.0, 11.0
- **CTE Pathway (D):** D1.0, D11.0
- **Mathematics:** Quantities (N-Q.1-3) for wage and schedule calculations
- **ELA/Literacy:** RST.11-12.1; WHST.11-12.2, WHST.11-12.4, WHST.11-12.7; SL.11-12.1, SL.11-12.4; L.11-12.1, L.11-12.2
- **Career Ready Practices:** 1, 2, 3, 4, 7, 8, 10, 11, 12

Unit 3: Site Preparation and Building Layout (Weeks 5-6)

Objectives

- Apply measurement systems and layout methods using tape measures, builder's levels, and laser levels.
- Establish control lines, right angles, and elevations for a small building footprint.
- Produce a site setup procedure checklist that meets tolerance requirements.

Activities and Assessments

- Layout mathematics worksheet: fractions to decimals, percent error, and tolerances.

- Equipment demonstrations: set up and use levels to transfer elevations.
- Field lab: stake and string a mock foundation with offset batter boards.
- Checklist creation and peer review for sequence, safety, and accuracy.
- Assessments: hands-on layout performance; math worksheet; checklist rubric.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 10.0, 11.0
- **CTE Pathway (D):** D2.0, D3.0, D4.0, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Algebra — Creating Equations (A-CED.1-4); Geometry — Similarity, Right Triangles, and Trigonometry (G-SRT.6, 8); Geometry — Modeling with Geometry (G-MG.1-3)
- **ELA/Literacy:** RST.11-12.3, RST.11-12.4; WHST.11-12.2, WHST.11-12.7; SL.11-12.1
- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 10

Unit 4: Concrete, Masonry, and Foundation Systems (Weeks 7-9)

Objectives

- Read foundation plan symbols and details; identify footing sizes, reinforcement, and anchor schedules.
- Demonstrate forming, bracing, mixing principles, placing, consolidating, and curing.
- Perform basic quantity takeoffs and cost estimation for a small foundation.

Activities and Assessments

- Safety test for forming and placing operations.
- Estimation mathematics worksheet: volume, yield, waste factors, and

reinforcement counts.

- Practical build: set forms, place reinforcement, simulate pour and curing controls.
- Assessments: hands-on build rubric; plan-reading quiz; estimation accuracy check.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 10.0, 11.0
- **CTE Pathway (D):** D2.0, D3.0, D4.0, D5.0, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Algebra — Creating Equations (A-CED.1-4); Geometry — Geometric Measurement and Dimension (G-GMD.3); Geometry — Modeling with Geometry (G-MG.1-3)
- **ELA/Literacy:** RST.11-12.1, RST.11-12.3, RST.11-12.7; WHST.11-12.2, WHST.11-12.7
- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 10

Unit 5: Framing Materials and Floor Framing (Weeks 10-13)

Objectives

- Compare framing materials (grades, species, engineered products) and select appropriate fasteners and connectors.
- Construct floor systems from sill plate to decking, including joists, beams, blocking, and subfloor.
- Produce materials lists from blueprints and draft a change order request email.

Activities and Assessments

- Blueprint takeoff: sill plates, joists, beams, connectors, sheathing.
- Floor framing lab: lay out, cut, assemble, square, and sheath a platform.

- Professional writing: change-order scenario and email with justification.
- Reflection: evaluate accuracy, speed, and teamwork.
- Assessments: tool safety and identification quiz; floor build rubric; writing rubric.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 7.0, 9.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, D5.0, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Algebra — Creating Equations (A-CED.1-4); Functions — Interpreting Functions (F-IF.4, 6) for production tracking; Geometry — Modeling with Geometry (G-MG.1-3)
- **ELA/Literacy:** RST.11-12.1, RST.11-12.4; WHST.11-12.1, WHST.11-12.2, WHST.11-12.4; SL.11-12.1
- **Career Ready Practices:** 1, 2, 4, 5, 7, 9, 10

Unit 6: Wall Framing (Weeks 14-16)

Objectives

- Layout and construct rough-framed walls to specification, including corners, tees, openings, headers, and cripple studs.
- Interpret nailing schedules and connector requirements to meet structural and code requirements.
- Conduct a peer critique for plumb, level, square, spacing, and fastening.

Activities and Assessments

- Framing quiz on symbols, schedules, and sequencing.
- Wall construction lab: fabricate and stand wall sections with window and door rough openings.
- Tool identification quiz; group critique with measured checks and rework plan.

- Assessments: performance rubric; quizzes; critique evidence.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 9.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, D5.0, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Geometry – Geometric Measurement and Dimension (G-GMD.3); Geometry – Modeling with Geometry (G-MG.1-3)
- **ELA/Literacy:** RST.11-12.3; WHST.11-12.2; SL.11-12.1, SL.11-12.4
- **Career Ready Practices:** 1, 2, 4, 5, 7, 10

Unit 7: Roof Framing (Weeks 17-19)

Objectives

- Use geometry and layout techniques for trusses and common, hip, and jack rafters, including pitch and rise-run relationships.
- Prepare roof material lists and cut sheets.
- Assemble a small roof mock-up safely and accurately.

Activities and Assessments

- Pythagorean Theorem worksheet and pitch problems.
- Layout demonstration: rafter tables, bevels, and seat and plumb cuts.
- Group roof assembly: ridge, common rafters, sheathing.
- Assessments: math worksheet; assembly rubric; safety observation notes.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, D5.0, D10.0
- **Mathematics:** Geometry – Similarity, Right Triangles, and Trigonometry

(G-SRT.6, 8); Geometry — Modeling with Geometry (G-MG.1-3); Quantities (N-Q.1-3)

- **ELA/Literacy:** RST.11-12.3, RST.11-12.4; WHST.11-12.2; SL.11-12.1
- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 10

Unit 8: Electrical Wiring (Weeks 20-22)

Objectives

- Install residential branch circuits, devices, and lighting to basic electrical code principles, including breaker selection, conductor sizing, and box fill concepts.
- Perform load calculations and plan safe circuit layout in a training wall.
- Document procedures and verify with a safety and inspection checklist.

Activities and Assessments

- Safety meeting and test: lockout-tagout concepts, safe tool use, and ladder practice.
- Load calculation worksheet and panel schedule drafting.
- Circuit wiring procedure: route conductors, make terminations, test continuity and polarity.
- Assessments: safety test; calculation worksheet; procedure rubric and inspection checklist.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 8.0, 9.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, D5.0, **D6.0**, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Algebra — Creating Equations (A-CED.1-4); Functions — Interpreting Functions (F-IF.4, 6); Statistics — Interpreting Categorical and Quantitative Data (S-ID.1-2)
- **ELA/Literacy:** RST.11-12.1, RST.11-12.3, RST.11-12.4; WHST.11-12.2, WHST.11-12.4; SL.11-12.1, SL.11-12.4

- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 8, 10

Unit 9: Plumbing Systems (Weeks 23-25)

Objectives

- Lay out and assemble drain, waste, and vent systems with correct slope and venting concepts.
- Join supply piping using threading, soldering, compression, and solvent welding.
- Level and set fixtures to specification; perform leak checks and document results.

Activities and Assessments

- Drain slope mathematics and code slope table practice.
- Joining demonstrations and student practice: threading, soldering, solvent welds.
- Sink connection demonstration and skill check in a framed bay.
- Assessments: math problems; hands-on rubric; safety and inspection checklist.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 7.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, D5.0, **D6.0**, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Algebra — Creating Equations (A-CED.1-4); Geometry — Modeling with Geometry (G-MG.1-3); Statistics — Interpreting Categorical and Quantitative Data (S-ID.1-2)
- **ELA/Literacy:** RST.11-12.3, RST.11-12.4; WHST.11-12.2; SL.11-12.1
- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 10

Unit 10: Heating, Ventilation, and Air Conditioning Systems (Weeks 26-27)

Objectives

- Explain basic heating, ventilation, and air conditioning system types, safety practices, and energy efficiency concepts.
- Read simple layout diagrams and identify duct components and installation best practices.
- Estimate basic material quantities for a short run of ducting.

Activities and Assessments

- Safety quiz for heating, ventilation, and air conditioning tasks and tools.
- Estimation worksheet: duct lengths, fittings, and waste factors.
- Duct layout demonstration and student practice on a training rig.
- Assessments: quiz; estimation accuracy; skills checklist.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, **D7.0**, D9.0, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Algebra — Creating Equations (A-CED.1-4); Functions — Interpreting Functions (F-IF.4, 6)
- **ELA/Literacy:** RST.11-12.1, RST.11-12.4; WHST.11-12.2; SL.11-12.1
- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 10

Unit 11: Windows and Exterior Doors (Weeks 28-29)

Objectives

- Install windows and exterior doors that meet manufacturer instructions, flashing, and weatherproofing requirements.

- Compare glazing types and their thermal performance and weather-resistance properties.
- Document installations with photo evidence and quality checklists.

Activities and Assessments

- Comparison report on glazing types: single, double, low-emissivity coatings, and gas fills.
- Flashing procedure demonstration and student practice with weather-resistive barriers.
- Install a window and an exterior door into training walls; perform water-entry checks.
- Assessments: report rubric; installation checklist; short quiz.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, D5.0, D8.0, D9.0, D10.0
- **Mathematics:** Geometry — Modeling with Geometry (G-MG.1-3); Quantities (N-Q.1-3)
- **ELA/Literacy:** RST.11-12.1, RST.11-12.4, RST.11-12.7, RST.11-12.9; WHST.11-12.2
- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 8, 10

Unit 12: Exterior Wall Finish (Weeks 30-31)

Objectives

- Install exterior sheathing, weather-resistive barriers, and siding products to specification.
- Interpret manufacturer installation guides and codes that affect moisture management.
- Demonstrate correct fastener selection and spacing for various finish

systems.

Activities and Assessments

- Weather barrier installation lab: lapping, corners, penetrations, and flashing.
- Siding demonstration for two materials; student install on mock wall.
- Exterior wall finish quiz on sequencing and fasteners.
- Assessments: lab rubric; product data sheet citation check; quiz.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, **D5.0**, **D8.0**, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Geometry — Geometric Measurement and Dimension (G-GMD.3); Geometry — Modeling with Geometry (G-MG.1-3)
- **ELA/Literacy:** RST.11-12.1, RST.11-12.3, RST.11-12.4; WHST.11-12.2; SL.11-12.1
- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 10

Unit 13: Insulation and Soundproofing (Weeks 32-33)

Objectives

- Compare insulation materials and methods; analyze thermal resistance values and installation requirements.
- Install insulation to meet energy code intent and manufacturer specifications.
- Apply basic principles of sound control in wall assemblies.

Activities and Assessments

- Title 24-aligned code research brief (focus on envelope intent and thermal resistance values in plain language).

- Installation checklist for batt, blown-in demonstration, or rigid board in mock walls.
- Short quiz on thermal resistance values, vapor control concepts, and safety.
- Assessments: research brief rubric; installation checklist; quiz.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, D8.0, D9.0, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Functions — Interpreting Functions (F-IF.4, 6) for performance comparisons; Statistics — Interpreting Categorical and Quantitative Data (S-ID.6)
- **ELA/Literacy:** RST.11-12.1, RST.11-12.4, RST.11-12.7; WHST.11-12.2, WHST.11-12.7
- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 8, 10

Unit 14: Interior Wall Finish (Weeks 34-35)

Objectives

- Measure, cut, hang, tape, and finish gypsum board to a specified level of finish.
- Estimate materials and plan a safe, efficient workflow.
- Explain safety practices for cutting, sanding, and dust control.

Activities and Assessments

- Interior wall finish demonstration and student rotations: hanging, taping, and finishing.
- Safety test: dust control, knives and saws, ladder practices.
- Drywall quiz on levels of finish, tools, and sequencing.
- Assessments: performance rubric; safety test; quiz.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, **D5.0**, **D8.0**, D10.0
- **Mathematics:** Quantities (N-Q.1-3); Geometry – Modeling with Geometry (G-MG.1-3)
- **ELA/Literacy:** RST.11-12.3, RST.11-12.4; WHST.11-12.2; SL.11-12.1
- **Career Ready Practices:** 1, 2, 4, 5, 6, 7, 10

Unit 15: Doors and Interior Trim (Week 36)

Objectives

- Hang interior doors; install casing and base with accurate reveals, miters, and returns.
- Select fasteners and adhesives appropriate to materials and conditions.
- Finalize student portfolios with artifacts, reflections, and evidence of competencies.

Activities and Assessments

- Casing and base installation checklist and skill demonstration.
- Reflection journal on interior finish craftsmanship and problem-solving.
- Doors and trim quiz on terminology and sequencing.
- Portfolio review with industry feedback.
- Assessments: installation rubric; quiz; portfolio scoring guide.

Standards Alignment

- **CTE Anchor:** 2.0, 4.0, 5.0, 6.0, 7.0, 9.0, 10.0, 11.0
- **CTE Pathway (D):** D3.0, D4.0, **D5.0**, **D8.0**, D10.0, D11.0

- **Mathematics:** Quantities (N-Q.1-3); Geometry – Geometric Measurement and Dimension (G-GMD.3); Geometry – Modeling with Geometry (G-MG.1-3)
- **ELA/Literacy:** RST.11-12.1, RST.11-12.4; WHST.11-12.2, WHST.11-12.4, WHST.11-12.7; SL.11-12.1, SL.11-12.4
- **Career Ready Practices:** 1, 2, 3, 4, 5, 7, 9, 10, 11, 12

7) Is this course modeled after an approved A-G Course on the UC Portal?

☑ Yes: District and course: District and course: Val Verde School District School District Construction 2 (can add the link) UC_Construction II (10-12)_VVSDSD

☐ No

8) Budget- budget figures must be included even if they are an estimate.

Projected Costs	Start-up	Ongoing
Personnel (Not to include classroom instructor unless a new section is needed)	NA	CTE Credentialed Teacher
Instructional Material Supplies per student (textbooks, software, etc.)	$200	$100
Services (training, equipment maintenance, contracts, etc.)	$10000	$5000
Capital Outlay (remodeling, technology, etc.)	NA	NA
Total Projected Costs	$20,000	$10,000

9) Instructional Materials- must include estimates for new materials even if none have been selected. Place in the chart above.

Type	Publisher	Title	ISBN	Author	Copyright	# Have/Need

10) Funding Source(s) for Costs and Instructional Materials

Grants (indicate specific grant and grant timeline)	
Categorical Funds (include related programs)	
Career Technical Education (must be for an approved CTE course)	CTE Incentive Grant, Perkins Grant - Annual
Department Funds	
Other (be specific)	

11) Appendix of Additional Documents

Required additional documents include meeting minutes where the course was discussed and approved
Advisory Course Approval.pdf 2025-2026 CTE Dept. Chair Meeting

Signatures Page

Course name: Construction 2

12) District Principal Review and Approvals:

Principal's Signatures	Site	Approved / Not Approved
Casey Cunningham (Jan 5, 2026 13:38:04 PST)	EAHS	Approved
Amy Wiese (Jan 5, 2026 10:52:06 PST)	MCHS	Approved
April Santos (Jan 5, 2026 11:20:05 PST)	MHS	Approved
Andrea Correia (Jan 5, 2026 09:26:07 PST)	PHS	Approved
Kimberly L Johnson-Clissold	SRHS	Approved
Donna Garibaldi (Jan 5, 2026 13:42:16 PST)	RHS	Approved

13) District Department Chair Review and Approvals:

Department Chair Signatures	Site	Approved / Not Approved
Zachary Davis (Dec 20, 2025 13:52:42 PST)	EAHS	Approved
Stephanie Thomas (Dec 23, 2025 20:29:29 PST)	MCHS	Approved
Bao Alderson (Dec 24, 2025 15:13:42 PST)	MHS	Approved
Maureen McCabe (Dec 24, 2025 15:11:46 PST)	PHS	Approved
Lisa Piehl (Dec 9, 2025 13:08:16 PST)	SRHS	Approved
Colleen Spiers (Dec 19, 2025 13:30:08 PST)	RHS	Approved

Course Catalog Information (To be filled by the District Office):

Course Number	TBD
Course Short Title:	Construction II
Course Title:	Construction II
Number of Credits:	10
Grade Span:	9-12
Graduation Requirement:	Z
Prerequisites:	None
Course Department:	CTE
State Course Code:	7342
A-G Subject:	"G"
CTE Pathway:	Building and Construction Trades Sector - Residential and Commercial Construction Pathway
Other Information:	This course is a redesign of an existing Advanced Cabinetry course at SRHS