Escondido Union High School District

Wood 2

EUHSD Board Approval Date: 8/8/17
The EUHSD Wood 2 curriculum document identifies what students should be able to know by grade level in a comprehensive standards-based course of study. The curriculum document is updated annually based on student academic achievement data, research and best practices, and input from stakeholders. The EUHSD curriculum document contains the following documents and/or information:

A. Course Description
B. Course Guidelines/Requirements - graduation credit information, transcript information, adopted materials, adopted technology, assessment outline
C. Instructional Materials References
D. Scope and Sequence Map with Essential Standards outlined by Unit
E. References to key essential design and implementation documents

A comprehensive course of study and/or program is designed so that all students have access to the rigorous curriculum necessary to graduate high school demonstrating college and career readiness skills. Student-Centered learning provides opportunity for collaboration, communication, and a robust learning environment and provides opportunities for all students to meet the goals of the district’s Instructional Focus at the time of this writing: “All students communicate their thinking, ideas and understanding by effectively using oral, written and/or non-verbal expression.”

A key design consideration in the transition to the new California State Standards is a focus on changes to pedagogy. The CA Learning Standards describe key instructional shifts, which guide classroom teaching and learning and provide a foundation of curriculum and instructional design based on student inquiry and a focus on rigorous literacy tasks. These instructional shifts are described on the California Department of Education’s website at the following URL: https://www.cde.ca.gov/Re/cc/

The curriculum document is aligned to the California Learning Standards and—more specifically—the Model Career Technical Education Standards, the CTE Knowledge and Performance Anchor Standards, and the Pathway Standards specific to this course of study. All CTE standards are located here: https://www.cde.ca.gov/ci/ct/sf/
**Wood 2 Course Description**

*Wood 2* is an intermediate level course offered to students with moderate experience in woodworking. This course builds on students’ knowledge of safety, systems, tools, procedures and processes to successfully create individual projects acquired in year 1. It also provides learning opportunities for students interested in preparing for careers in cabinet construction and wood products. This class is articulated with Palomar College and students who earn a “B” or better can receive 3 units of college credit. (SPHS Only)

<table>
<thead>
<tr>
<th>Course Requirements</th>
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<tr>
<td><strong>Course Length:</strong></td>
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<td><strong>UC/CSU Requirement:</strong></td>
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<td><strong>Industry Sector:</strong></td>
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<td><strong>Board Approval Date (Curriculum):</strong></td>
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<td><strong>Board Approval Date (Materials):</strong></td>
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**Core Instructional Material/s:**

**Supplemental Instructional Material/s:**
- Each unit of study contains a variety of web based resources that are designed to supplement the tasks outlined within the specific unit.

**Technology Resource/s:**
- Teachers will utilize a variety of equipment in the work/lab space.
- Students will utilize a variety of industry equipment and tools found within the shop/lab setting.
- Students will utilize the WWW to conduct research on specific topics.

**Assessment/s:**
- The course is designed as a project based curriculum. Each unit outlines specific skills and/or long term projects which serve as unit and course assessments.
The Scope and Sequence Guide is a California standards based document that delineates the standards based skills students are expected to know and do in order to meet College and Career Readiness expectations. Each unit of study in the Scope and Sequence document is designed to build upon the previous unit and/or prerequisite coursework in support of student mastery of specific standards based skills. The Scope and Sequence document provides the framework of understanding for key assignments, key assessments, and instructional resources and strategies that serve to assist students in meeting unit learning objectives. The document will be updated annually with input from all stakeholders.

In coursework requiring reading and writing, the following standards are not specifically stated in any one unit of study, but are the result of implementation throughout the curriculum as students participate in reading, writing, and speaking/listening standards based activities.

- By the end of grade 11, students will read and comprehend literary nonfiction in the grades 11-CCR text completely and proficiently, with scaffolding as needed at the high range. (Reading Informational Text Standard 10)
- Students will write routinely over extending time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks and purposes. (Writing Standard 10)
- “To be college and career ready, students must have ample opportunities to take part in a variety of rich and structured conversations – as part of a whole class, in small groups, and with a partner – build around important content in various domains. They must be able to contribute appropriately to conversations, make comparisons and contrasts, and analyze and synthesize a multitude of ideas according to the standards of evidence appropriate to a particular discipline.” (Standards for ELA Anchor Standards for Speaking/Listening)

The following CTE anchor standards are not specifically stated in any one unit of study, but are reflected as skills and practices throughout the curriculum.

- MPD Anchor 4.0 Technology: Use existing and emerging technology, to investigate, research, and produce products and services, including new information, as required in the Manufacturing and Product Development sector workplace environment. (Direct alignment with WS 11-12.6)
- MPD Anchor 6.0 Health and Safety: Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the Manufacturing and Product Development sector workplace environment. (Direct alignment with RSTS 9-10, 11-12.4)
- MPD Anchor 10.0 Technical Knowledge and Skills: Apply essential technical knowledge and skills common to all pathways in the Manufacturing and Product Development sector, following procedures when carrying out experiments or performing technical tasks. (Direct alignment with WS 11-12.6)
- MPD Anchor 11.0 Demonstration and Application: Demonstrate and apply the knowledge and skills contained in the Manufacturing and Product Development anchor standards, pathway standards, and performance indicators in classroom, laboratory, and workplace settings, and through the Skills USA career technical student organizations.
Wood 2 Scope and Sequence
Unit 1 - Safety
Length: 2 Weeks

**Unit Description:** Unit 1, students will participate in hands-on activities designed to build their foundational understanding of participation in a workshop classroom environment. Students will build upon the safety skills acquired in year 1. Students will examine specific safety and use policies, procedures, and practices. Students will examine workspaces for safety and/or health concerns and will set up work space according to industry and safety specifications. The students will be expected to demonstrate a variety of safety practices through various classroom assignments and activities and will demonstrate their understanding through completion of a required safety test. This will include a comprehensive understanding of the various tools and equipment utilized within the shop, the safety features of each item, location of emergency wash stations, procedures for emergency notification, and protocols for working individually and within teams when operating machinery or handling tools. The skills acquired in Unit 1 are built upon in subsequent units of study. When students encounter new tools and/or equipment, they will repeat safety demonstrations and take safety quizzes or tests prior to use.

**Anchor Standards:** The CTE Anchor standards reflect what students should know and do in a sequential CTE pathway course of study. The Anchor standards may be repeated throughout each unit of study and build upon one another throughout a series of courses.

- **Communications:**
  2.5 Communicate information and ideas effectively to multiple audiences using a variety of media and formats.

- **Technology:**
  4.5 Research past, present, and projected technological advances as they impact a particular pathway.

- **Problem Solving and Critical Thinking:**
  5.1 Identify and ask significant questions that clarify various points of view to solve problems.
  5.4 Interpret information and draw conclusions, based on the best analysis, to make informed decisions.

- **Health and Safety:**
  6.1 Interpret policies, procedures, and regulations for the workplace environment, including employer and employee responsibilities.

**Learning Objectives:**

- **Students will be able to...**
  - Communicate both orally and in writing.
  - Conduct research, both small and on a larger scale, on specific assigned topics such as safety and machine tool use.
  - Ask and answer questions using industry terminology.
  - Interpret information from a variety of documents.
  - Follow specific policies and procedures for safety and equipment use.
  - Demonstrate health and safety practices when working in the shop.
  - Maintain tools and equipment according to industry specifications.
  - Set up and maintain shop to avoid health concerns or safety hazards.
  - Practice personal safety when handling materials or machinery.
  - Report hazards in the shop.
  - Locate and adhere to MSDS instructions.

**Unit Assignments:**

- **Throughout the course students will be expected to**
  - properly identify, use, and maintain a variety of shop tools and equipment according to industry specifications. The teacher, along with students who completed year 1, will demonstrate each piece of equipment and its safety features for each specific unit of study. Regardless of years in program, all students will complete a series of unit quizzes and an overall safety test in order to demonstrate understanding of key rules and procedures. For all tasks involving specific equipment use, students will conduct demonstrations of the equipment, showcasing the safety features and maintenance features. This will be repeated in each unit of study or when a new piece of equipment and/or tool is introduced.
  - All students will be required to keep a notebook that outlines key equipment/tools and their use, function, and maintenance requirements and any specific industry related vocabulary terminology. This includes the specific equipment term and its official definition according to industry standards. For specific equipment safety regulations: This includes identifying any safety features of the specific tool or piece of equipment. As a

**Unit Assessment:**

- Hands-on safety demonstration assessments for specific equipment and tool use
- Notebook checks
- Written safety test with 100% accuracy
6.2 Use health and safety practices for storing, cleaning, and maintaining tools, equipment, and supplies.
6.3 Set up a work area, or shop, to avoid potential health concerns and safety hazards, including but not limited to electrical (shock), wires (tripping), fumes (lung health), noise (hearing loss), fire (burns), and so forth, incorporating ergonomics.
6.4 Practice personal safety when lifting, bending, or moving equipment and supplies.
6.5 Demonstrate how to prevent and respond to work-related accidents or injuries; this includes demonstrating an understanding of ergonomics.
6.6 Maintain a safe and healthful working environment.
6.7 Be informed of laws/acts pertaining to the Occupational Safety and Health Administration (OSHA).
6.8 Report hazards found on the job site to supervisor/teacher.
6.9 Locate, and adhere to, Material Safety Data Sheet (MSDS) instructions.
6.10 Maintain proper use of safety apparel at all times, including but not limited to, eye protection, hearing protection, skin protection, head protection, footwear and protection from airborne particulate matter.
6.11 Comply with the safe handling, storage and disposal of chemicals, materials and adhesives in accordance with local, state, and federal safety and environmental regulations (OSHA, Environmental Protection Agency [EPA], Hazard Communication [HazCom], Material Safety Data Sheets [MSDS], etc.).
6.12 Demonstrate the proper care and safe use of hand, portable and stationary power tools.

- Work well independently and/or with a small team, maintaining appropriate teamwork procedures.
- Use industry terminology correctly.
- Demonstrate effective time management skills.
- Utilize measurement skills acquired within class and within math classes.
- Select proper tools for specific jobs and/or plans.
- Identify basic shop machinery, use, safety features, and functions.

Teacher Note: Skills USA is a student professional organization. The teacher will review membership and Skills USA activities to the class. Skills USA - Professional Student Organization for Industry. Students will be introduced to the Skills USA organization and may participate, at their choosing, in any year. Students participate in a variety of cabinet-making competitions and professional skill development. The competitions may be held at the local and/or regional level as conducted by Skills USA. The state competition brings together demonstration of safety requirements for learning, students will complete the following activities:

- Students will work in groups of 2-3 to create a poster diagramming and outlining key components of workshop safety. Students will present their posters to two other groups and will evaluate their posters according to industry standards reviewed in class.
- Students will take a multiple choice safety test and will pass with at least 90% accuracy prior to utilizing equipment and/or working in the shop area. Students who do not get 100% accuracy will write out the incorrect questions, research the correct answer, respond with the correct answer, and will note the specific rationale for why they may have selected the incorrect answer.
- Students will develop a housekeeping or clean-up plan for each shop based on photographs and videos of the workshops as they appear during actual work. The plan will be in a spreadsheet format, identifying potential hazards and ways to mitigate those hazards so they do not result in injuries.

Teacher Note: Skills USA is a student professional organization. The teacher will review membership and Skills USA activities to the class. Skills USA - Professional Student Organization for Industry. Students will be introduced to the Skills USA organization and may participate, at their choosing, in any year. Students participate in a variety of cabinet-making competitions and professional skill development. The competitions may be held at the local and/or regional level as conducted by Skills USA. The state competition brings together demonstration of safety requirements for learning, students will complete the following activities:
Responsibility and Flexibility:
7.2 Explain the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
7.3 Understand the need to adapt to changing and varied roles and responsibilities.
7.4 Practice time management and efficiency to fulfill responsibilities.

Leadership and Teamwork:
9.1 Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders.
9.2 Identify the characteristics of successful teams, including leadership, cooperation, collaboration, and effective decision-making skills as applied in groups, teams, and career technical student organization activities.

Technical Knowledge and Skills:
10.1 Interpret and explain terminology and practices specific to the Building and Construction Trades sector.
10.5 Demonstrate the basic care, proper maintenance, and use of hand, portable, and stationary tools related to the Building and Construction trades.

Demonstration and Application:
11.1 Utilize work-based/workplace learning experiences to demonstrate and expand upon knowledge and skills gained during classroom instruction and laboratory practices specific to the Building and Construction Trades sector program of study.

wood workers from throughout the state. The students may also move on to National competitions.
### Building and Construction Trades Pathway Standards:

A4.0 Demonstrate proper selection and use of woodworking tools.
A4.1 Demonstrate the accurate use of common measuring and layout tools.
A4.2 Select the proper layout tools for specific tasks.
A4.3 Select the proper cutting tools for specific operations (e.g., straight cuts, curves, drilling holes).

### Meeting the Needs of ELs:

- Utilize the student information system to acquire the language levels of EUHSD English Learners.
- In 2012, the CA Department of Education adopted new language level proficiency descriptors and new EL state standards. Visit the following website to learn more about those new descriptors and corresponding standards: [http://www.cde.ca.gov/sp/el/er/documents/eldstndspublication14.pdf](http://www.cde.ca.gov/sp/el/er/documents/eldstndspublication14.pdf)
- In 2014, the CA Department of Education adopted new ELA-ELD Framework, with specific strategies designed to meet the needs of EL students. Visit the following URL to learn more about the new frameworks: [http://www.cde.ca.gov/ci/rl/cf/documents/elaeldfwchapter11.pdf](http://www.cde.ca.gov/ci/rl/cf/documents/elaeldfwchapter11.pdf)

### Instructional Resources:

- **Wood Technology and Processes** Textbook
- **Modern Woodworking: Tools, Materials, and Processes**
- [www.osha.gov](http://www.osha.gov)
- Teacher Developed Safety Manual
- [http://www.cslib.ca.gov/](http://www.cslib.ca.gov/) (Department of Consumer Affairs Contractors State License Board)
- [http://www.portfoliogen.com/](http://www.portfoliogen.com/) (website with information on creating a digital portfolio)
## Wood 2 Scope and Sequence

### Unit 2 – Introduction to Cabinet Making

**Length:** 30 Weeks

### Unit Description:
In wood working 2 students will complete a series of major projects that serve to encompass all phases of design from creating a design plan through execution and review by industry expert. The projects are expected to take several weeks for completion and are done within the shop space. Students receive weekly instruction and feedback and continue to enhance their use of industry skills and refine their projects based on their increasing skill knowledge. Throughout Unit 2/Course 2, students rely on all of the content acquired in year 1 on materials, measurement, and project implementation. Students demonstrate their competence by planning, design, layout, and use of technical drawing skills for practical use in cabinetmaking and work-working. A key focus of year 2 is that students exemplify key skills of working independently and in groups, utilizing time management skills, and that they can communicate their thinking both orally and in writing.

### Unit Standards:

**Building and Construction Trades Pathway Standards:**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
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<tbody>
<tr>
<td>A1.0</td>
<td>Demonstrate competence in planning, design, layout, and technical drawing interpretation for practical use in cabinetmaking and mill working.</td>
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<tr>
<td>A1.1</td>
<td>Identify common sizes in relation to furniture and cabinets.</td>
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<tr>
<td>A1.2</td>
<td>Calculate board, square, and linear feet.</td>
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<td>A1.3</td>
<td>Estimate material costs.</td>
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<tr>
<td>A1.4</td>
<td>Apply design elements: shapes, textures, lines, and colors to create functional and attractive cabinets, furniture, and millwork.</td>
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<tr>
<td>A1.5</td>
<td>Apply principles of design, harmony, repetitions, balance, and proportion to create functional and attractive cabinets, furniture, and millwork.</td>
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<tr>
<td>A1.6</td>
<td>Read and interpret technical drawings.</td>
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<td>A1.7</td>
<td>Sketch a project to scale using manual drawing techniques.</td>
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<tr>
<td>A2.1</td>
<td>Identify various cabinet styles and list characteristics of traditional, provincial, and contemporary designs.</td>
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<tr>
<td>A3.0</td>
<td>Interpret and apply information to develop a bill of materials, estimate the cost of materials, and develop a plan of procedures to complete a project.</td>
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<tr>
<td>A3.1</td>
<td>Evaluate an existing bill of materials for accuracy.</td>
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</table>

### Learning Objectives:

**Students will be able to…**

- Demonstrate competence in all phases of technical drawing and interpretation of drawings.
- Describe the use of various wood materials in project implementation.
- Utilize measurement tools to calculate for specific design plan needs.
- Apply principles of design and elements of art to designs.
- Sketch a project to scale using manual drawing techniques.
- Differentiate between various furniture styles used in the industry.
- List sequence of cutting procedures.
- Interpret all aspects of materials bill, including checking for accuracy.
- Demonstrate proper selection and use of a variety of wood working tools for completion of a specific assigned task.

### Unit Assignments:

- Students will be provided with an industry standard plan to design and construct a small face frame cabinet, which includes a drawer, a hardwood top, and mitered base molding, with an optional door. This project incorporates use of sheet stock, hardwoods, softwoods, and industry standard joinery. Students will select from a variety of industry finishes and apply.

### Unit Assessments:

- All students will complete a cabinetmaking culminating project
- Project Plans
- Reflection of Completion of Task – 1 page
- Completion of a variety of demonstration skills tests (throughout the course)
- Participation in end-of-year showcase with industry experts
- Revised Resume, Cover Letter, and Educational Requirements tasks
- Weekly quizzes
- Unit exam on: use of finishes, measurement skills, wood selection, fasteners, adhesives, etc. as determined by the instructor
<table>
<thead>
<tr>
<th>A.3.3 Determine the cost of materials needed for a cabinet of furniture project.</th>
<th>Identify wood products and materials used in the furniture and cabinetworkmaking industry and describe their characteristics and uses.</th>
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</tr>
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<tr>
<td>A.3.4 Optimize available materials from a cutting diagram.</td>
<td>Compare and contrast the advantages and disadvantages of using laminates versus using veneers.</td>
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</tr>
<tr>
<td>A.3.5 Compare and contrast the cost of a specific project using different materials.</td>
<td>Demonstrate competence in various construction processes in the cabinetworkmaking, furniture making, and mill working industries.</td>
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<tr>
<td>A.3.6 Develop a materials list, cut list, and cost estimate from a working drawing for a specific cabinet project.</td>
<td>Utilize appropriate abrasives to prepare a project for a specific finish.</td>
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</tr>
<tr>
<td>A.4.0 Demonstrate proper selection and use of woodworking tools.</td>
<td>Understand finishes and when to apply paint, stains, sealers, varnishes, and catalyzed finishes including water-and oil-based finishes.</td>
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<tr>
<td>A.4.1 Demonstrate the accurate use of common measuring and layout tools.</td>
<td>Identify the difference between hardwood and softwood.</td>
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<tr>
<td>A.4.2 Select proper layout tools for specific tasks.</td>
<td>Identify several different species of hardwood and their characteristics that are common to the cabinetmaking and millwork industry.</td>
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<td>A.4.3 Select proper cutting tools for specific operations.</td>
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<td>A.4.4 Select the most appropriate blade for a given operation.</td>
<td>Identify common defects found in wood and list possible solutions. (Introduced in Unit 2)</td>
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<td>A.4.5 Select the proper boring tools for a specific operation.</td>
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<td>A.4.6 Select the proper hand-shaping tools for specific operations.</td>
<td>Demonstrate competence in various construction processes in the cabinetworkmaking, furniture making, and mill working industries.</td>
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<tr>
<td>A.4.7 Select proper clamping tools for specific operations.</td>
<td>Utilize appropriate abrasives to prepare a project for a specific finish.</td>
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<td>A.5.1 Define the difference between hardwood and softwood.</td>
<td>Understand finishes and when to apply paint, stains, sealers, varnishes, and catalyzed finishes including water-and oil-based finishes.</td>
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<td>A.5.5 Identify and be able to differentiate panel products and their use in the cabinetworkmaking industry.</td>
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<td>A.5.6 Describe the cutting and handling techniques used for sheet goods.</td>
<td>Identify common defects found in wood and list possible solutions. (Introduced in Unit 2)</td>
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<td>A.5.7 Compare and contrast the advantages and disadvantages of sheet goods versus solid wood stock.</td>
<td>Describe how the expansion and contraction of solid wood affects the design of joinery use in furniture and cabinet construction.</td>
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<td>A.5.9 Describe how the expansion and contraction of solid wood affects the design of joinery use in furniture and cabinet construction.</td>
<td>Identify the different types of pattern matching in veneers.</td>
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<td>A.5.11 Identify standard sizes and grades of various laminate.</td>
<td>Assembly, and finishing steps. They will then reevaluate their bill for accuracy. o Throughout the project build phase, students will demonstrate understanding of a variety of woodworking tools. Students will demonstrate use of tools and measurement by completing a series of cuts and will select the appropriate blades for a given operation, will select the appropriate hand held tools, and will select the appropriate clamping tools. Again, students will be assessed on their demonstration of selection and use through a series of skills tests using industry rubrics.</td>
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</table>
A6.1 Demonstrate a working knowledge of joinery, fasteners, and adhesives.
A6.2 Define the purposes for metallic fasteners in furniture and cabinetmaking.
A6.3 Select the proper metallic fasteners for specific applications.
A6.4 Demonstrate the proper use of metallic fasteners for specific applications.
A6.5 Compare and contrast joints commonly used in the cabinetmaking and mill working industries.
A6.6 Determine the appropriate application of a variety of joinery techniques, including dowels, biscuits, pocket holes, and mortise and tenon.
A6.8 Select the proper adhesive(s) to construct wood joints used in furniture or cabinets.
A6.9 Demonstrate initial assembly and dry clamping procedures.
A6.10 Demonstrate the proper use and application of adhesives.
A6.11 Demonstrate the proper cleanup procedures for specific adhesives.
A6.12 Select the correct type of wood joint used for a specific application and material.
A6.13 Demonstrate the ability to construct a variety of wood joints (i.e. butt, miter, compound miter, half lap, mortise and tenon).
A7.1 Square and surface a board to a specific size.
A7.2 Demonstrate common case construction.
A7.3 Demonstrate common frame and panel construction.
A7.4 Construct a case with a face frame using appropriate construction techniques.
A7.5 Construct a cabinet drawer using appropriate techniques.
A7.6 Construct a cabinet door using appropriate construction techniques.
A7.7 Construct a cabinet door using appropriate construction techniques.
A7.8 Demonstrate the use of a jig, template, or fixture in a production project.
A7.9 Use appropriate methods and tools to check the accuracy of a project.
A7.10 Lay out, install, and adjust the appropriate drawer hardware to include drawer slides and pulls.

Applications within their own project, as well as clarify specific requirements within teacher assigned skills tests and/or projects. Students will be tested on their knowledge of common joints used in cabinetmaking, will determine appropriate joining techniques for various applications, will identify a variety of adhesives and select the proper adhesive for a particular task. Students will be assessed using industry standards and will apply techniques to their own projects.

Throughout the project build phase, and as a capstone requirement, students will demonstrate their competency in various construction processes. They will be expected to demonstrate a comprehensive understanding of various processes in cabinetmaking, furniture making, and mill working industries. Upon completion of their project, students will be assessed on demonstration of common case construction, common frame and panel construction, construction of a frameless case, a cabinet drawer, use of a jig, template or fixture in a production project, use of tools for accuracy, and selection of hardware. All student work will be assessed throughout the build phase and according to industry standards.

Throughout the project build phase, and as part of the capstone project requirement, students will demonstrate their understanding and use of specific finishes. Students will be expected to speak to a variety of finishes, stains, paints, varnishes, and demonstrate their application and cleaning procedures.
A7.12 Lay out, install, and adjust the appropriate door hardware to include European and standard hinges.
A7.14 Use the appropriate adhesives and fasteners to install different types of trim, moldings, or other edge treatments.
A8.0 Utilize appropriate abrasives to prepare a project for a specific finish.
A8.1 Select the proper abrasive for shaping and smoothing materials.
A8.2 Select the proper grit sizes and sequences for shaping and smoothing operations.
A8.4 Properly prepare a surface for finishing.
A9.0 Understand finishes and when to apply paint, stains, sealers, varnishes, and catalyzed finishes, including water- and oil-based finishes.
A9.1 Demonstrate proper selection and application methods of different types of stains for a specific application.
A9.2 Demonstrate cleaning procedure for various types of stains.
A9.3 Select the proper type of sealer and finish coat for a specific application.
A9.4 Demonstrate proper application methods for different types of sealers and finish coats.
A9.5 Demonstrate cleaning procedures for various types of sealer and finish coats.
A9.6 Apply a suitable finish to a specific cabinet or millwork project.

Reading Standards for CTE Grade 9/10:
1. Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.
2. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
3. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific context.

These demonstrations will take place throughout the build phase.

- Students will submit their project to a showcase such as the county fair, where they will be assessed according to industry specifications. For those students unable to submit their project, the instructor will provide an in class showcase experience inviting industry experts to assess student projects. Students will take a photograph of their project and upload it to their digital portfolio. Students will write a brief reflection on the project, outlining their experience in use of the tools and their growth from the experience.
- Students will continue to enhance their understanding of career related skills and competencies. They will modify their resume and cover letter as well as educational goals from Year 1. Students will be expected to submit their resume and cover letter to their instructor at the end of the year for approval. This capstone task is a core requirement as students continue through the Wood pathway.

Extension Projects: As students complete their cabinet project, they are then able to incorporate the industry skills acquired in Wood 1 and 2 by creating customized project of choice, as improved by the instructor. The project must include all phases of an industry plan, including cost and length of time for completion.

- Throughout the unit, students will participate in a variety of in-class tasks that include deepening their understanding of joinery techniques. The teacher will demonstrate the techniques and then students are expected to perform the technique according to industry specifications.
<table>
<thead>
<tr>
<th>Scientific or technical context relevant to grades 9–10 texts and topics.</th>
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**Writing Standards for CTE grade 9/10:**

2d. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically.

8. Gather relevant information from multiple authoritative print and digital sources (primary and secondary), using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation. CA

- Throughout the year, students will participate in a list of housekeeping/shop cleanup activities, including the role of shop foreman, to assure that the shop remains true to industry specifications (OSHA). At the end of the year, as part of their exiting hands on final exam, students will participate in a series of in-depth cleanup activities that include storage and maintenance in order to prepare the shop for the summer months and the next year.

Skills USA - Professional Student Organization for Industry. Students will be introduced to the Skills USA organization and may participate, at their choosing, in any year. Students participate in a variety of cabinet-making competitions and professional skill development. The competitions may be held at the local and/or regional level as conducted by Skills USA. The state competition brings together wood workers from throughout the state. The students may also move on to National competitions.
Meeting the Needs of ELs:

- Utilize the student information system to acquire the language levels of EUHSD English Learners.
- In 2012, the CA Department of Education adopted new language level proficiency descriptors and new EL state standards. Visit the following website to learn more about those new descriptors and corresponding standards: [http://www.cde.ca.gov/sp/el/er/documents/eldstdnspublication14.pdf](http://www.cde.ca.gov/sp/el/er/documents/eldstdnspublication14.pdf)
- In 2014, the CA Department of Education adopted new ELA-ELD Framework, with specific strategies designed to meet the needs of EL students. Visit the following URL to learn more about the new frameworks: [http://www.cde.ca.gov/ci/rl/cf/documents/elaeldfwchapter11.pdf](http://www.cde.ca.gov/ci/rl/cf/documents/elaeldfwchapter11.pdf)

Instructional Resources:

- *Wood Technology and Processes* Textbook
- *Modern Woodworking: Tools, Materials, and Processes*
- [www.osha.gov](http://www.osha.gov)
- Teacher Developed Safety Manual
- [http://www.understandconstruction.com/wood.html](http://www.understandconstruction.com/wood.html) - (teacher resource - website article on understanding wood building materials)
- [http://www.cslb.ca.gov/About_Us/Library/Licensing_Classifications](http://www.cslb.ca.gov/About_Us/Library/Licensing_Classifications) - (teacher resource - Contractors State Licensing Classifications/Requirements)
- [http://www.cslb.ca.gov/About_Us/Library/Licensing_Classifications](http://www.cslb.ca.gov/About_Us/Library/Licensing_Classifications) - (teacher resource - Contractors State Licensing Classifications/Requirements)
- [https://www.youtube.com/watch?v=BN1IytrSpOU](https://www.youtube.com/watch?v=BN1IytrSpOU) - (teacher resource – UTUBE Video Wood Machining Skills Test)