

EL DORADO UNION HIGH SCHOOL DISTRICT
Educational Services

Course of Study Information Page

Course Title: Woodworking and Carpentry #0520	
Rationale: This is an introduction into the world of woodworking where the student will learn the basics of cabinetmaking, millwork, and construction as it relates to the industry.	
Course Description: Students will learn the basic techniques in cabinetmaking, furniture construction, upholstery, wood finishing and wood turning. Students will develop accuracy, judgment and craftsmanship and participate in creative project activities. The correct and safe uses of tools, machines, materials and processes are emphasized. Second semester offers techniques in finish carpentry, wood finishing related to these areas and wood turning. The student will use tools, machines and techniques related to the light construction industry. Accuracy, neatness, sound work habits, and safe work practices are stressed.	
Length of Course:	1 Year
Grade Level:	9 - 12
Credit: Number of units: 5 units per semester <input type="checkbox"/> Meets graduation requirements <input type="checkbox"/> Request for UC "a-f" requirements <input type="checkbox"/> College Prep <input checked="" type="checkbox"/> Elective <input checked="" type="checkbox"/> Vocational	
Prerequisites:	Engineering Design 1 or teacher permission
Department(s):	Trades and Industries
District Sites:	EDHS, ORHS, PHS, UMHS
Board of Trustees Adoption Date:	January 15, 2008
Textbook(s)/Instructional Materials:	
Date Adopted by the Board of Trustees:	

**EL DORADO UNION HIGH SCHOOL DISTRICT
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Course Title: Woodworking and Carpentry #520

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Unit 1: Orientation

- Goals:**
- A) Students will understand the goals and objectives of the course.
 - B) Students will learn how to properly use the tools of the trade.
 - C) Students will learn how to present their projects in the community.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Understand the short and long term goals of the course and the steps necessary to achieve their goals.	<ul style="list-style-type: none"> ▪ Lecture ▪ Explanation of grading policies and assessments ▪ Syllabus
2. Understand the tools of the trade, past, present, and future.	<ul style="list-style-type: none"> ▪ Demonstration of proper use of equipment and class materials ▪ Lecture ▪ Small group demonstrations ▪ Individual assessment
3. Understand the rules for class management, time manage, and equipment management	<ul style="list-style-type: none"> ▪ Lecture ▪ Demonstration ▪ Reviewing schedules

Content Standards: *Building Trades and Construction Industry Sector*

(1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.

(1.d) Formulate explanations by using logic and evidence.

10.2 Maintain and troubleshoot equipment used in the construction industry.

A4.1 Understand the proper and safe use of stationary power tools used in the milling process, such as shapers, sanders, joiners, table saws, and band saws.

A4.2 Understand the proper and safe use of stationary power tools used in the assembly process, such as pneumatic table clamps, case clamps, case frame fasteners, and hardware fasteners.

A4.3 Understand the proper and safe use of stationary power tools used in the finishing process, such as glue applicators, laminate applicators, and lacquer and paint applicators.

A4.4 Know the basic care, maintenance, and lock-out procedures for stationary power tools.

A5.1 Know how to read, understand, design, and construct cabinets accurately from cabinetmaking fabrication and installation plans and specifications.

A5.2 Understand how to estimate a bill of materials from drawings and specifications for constructing cabinets.

A5.3 Understand how to create a job schedule in a cabinetmaking project.

A5.4 Solve common cabinetmaking problems by using construction codes and

cabinet building standards stated in the Manual of Millwork.

A5.5 Understand record keeping procedures in all phases of cabinetmaking (e.g., time accounting, cost of goods). A7.1 Design and create cabinet and wood products.

A7.2 Develop a production plan, including the layout, bill of materials, and cost analysis, for the production of cabinets or wood products.

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Unit 2: Personal and Work Site Safety

Goal: Students will understand how use of woodworking equipment in such a way to insure their and others safety.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Understand how to care for the equipment	<ul style="list-style-type: none"> ▪ Lecture on safety and proper maintenance and use of equipment ▪ Demonstration ▪ Reading Chapter 3 pages 21 - 42 ▪ Student activities and practice
2. Understand different techniques and uses of equipment – tools of the trade, past, present, and future	<ul style="list-style-type: none"> ▪ Lecture ▪ Demonstration ▪ Reading Chapter 3 ▪ Student activities and practice
3. Understand the importance of safety procedures to prevent injury	<ul style="list-style-type: none"> ▪ Lecture ▪ Demonstrating ▪ Guided practice assessment
4. Pass a safety test on each piece of equipment and machine	<ul style="list-style-type: none"> ▪ Pass safety test with a score of 100%

Content Standards: *Building Trades and Construction Industry Sector*
(1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.
(1.d) Formulate explanations by using logic and evidence.
10.2 Maintain and troubleshoot equipment used in the construction industry.
A4.1 Understand the proper and safe use of stationary power tools used in the milling process, such as shapers, sanders, joiners, table saws, and band saws.
A4.2 Understand the proper and safe use of stationary power tools used in the assembly process, such as pneumatic table clamps, case clamps, case frame fasteners, and hardware fasteners.
A4.3 Understand the proper and safe use of stationary power tools used in the finishing process, such as glue applicators, laminate applicators, and lacquer and paint applicators.
A4.4 Know the basic care, maintenance, and lock-out procedures for stationary power tools.
A5.1 Know how to read, understand, design, and construct cabinets accurately from cabinetmaking fabrication and installation plans and specifications.
A5.2 Understand how to estimate a bill of materials from drawings and specifications for constructing cabinets.
A5.3 Understand how to create a job schedule in a cabinetmaking project.
A5.4 Solve common cabinetmaking problems by using construction codes and

cabinet building standards stated in the Manual of Millwork.

A5.5 Understand record keeping procedures in all phases of cabinetmaking (e.g., time accounting, cost of goods). A7.1 Design and create cabinet and wood products.

A7.2 Develop a production plan, including the layout, bill of materials, and cost analysis, for the production of cabinets or wood products.

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Unit 3: Project Planning

Goal: Students will understand the process of planning a project from conception to final product

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Create a project concept sketch for teacher approval	<ul style="list-style-type: none"> ▪ Sketch possible project based on the ability of the student
2. Prepare a plan of procedure, material list, and cutting list	<ul style="list-style-type: none"> ▪ Develop a plan of procedure, material list and material list
3. Determine the cost of the project	<ul style="list-style-type: none"> ▪ Develop an itemized bill of materials
4. Understand the basic design structures for different furniture projects	<ul style="list-style-type: none"> ▪ Lecture ▪ Handouts that cover furniture structures
5. Complete required projects and free choice projects with teacher approval	<ul style="list-style-type: none"> ▪ Lab work

Content Standards: *Building Trades and Construction Industry Sector*

(1.1) Read, write, and compare rational numbers in scientific notation (positive and negative powers of 10) with approximate numbers using scientific notation.

(1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.

(1.3) Convert fractions to decimals and percents and use these representations in estimations, computations, and applications.

(1.4) Differentiate between rational and irrational numbers.

(1.5) Know that every rational number is either a terminating or a repeating decimal and be able to convert terminating decimals into reduced fractions.

(1.6) Calculate the percentage of increases and decreases of a quantity.

(1.7) Solve problems that involve discounts, markups, commissions, and profit and compute simple and compound interest.

Specific applications of Mathematical Reasoning standards (grade seven):

(2.1) Use estimation to verify the reasonableness of calculated results.

(2.2) Apply strategies and results from simpler problems to more complex problems.

(2.7) Indicate the relative advantages of exact and approximate solutions to problems

(3.1) Evaluate the reasonableness of the solution in the context of the original situation. (1.d) Formulate explanations by using logic and evidence.

(10.3.5) Understand the connections among natural resources, entrepreneurship, labor, and capital in an industrial economy.

(11.5.7) Discuss the rise of mass production techniques, the growth of cities, the impact of new technologies (e.g., the automobile, electricity), and the resulting prosperity and effect on the American landscape.

4.4 Understand ways in which raw materials are collected and processed to produce

industrial materials.

5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks.

7.1 Understand the qualities and behaviors that constitute a positive and professional work demeanor.

8.1 Know the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations.

8.2 Understand the concept and application of ethical and legal behavior consistent with workplace standards.

8.3 Understand the role of personal integrity and ethical behavior in the workplace.

8.4 Understand how social, organizational, and technological systems work.

9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.

9.2 Understand the ways in which pre professional associations, such as Skills USA, and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.

9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.

9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.

9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.

9.6 Communicate ideas to justify positions, persuade and convince others, confirm responsibility, and evaluate existing policies and procedures.

10.1 Understand construction processes and systems and their importance in construction technology.

10.2 Maintain and troubleshoot equipment used in the construction industry.

Foundation Standards

10.3 Use, store, and allocate materials efficiently, and use space efficiently.

10.4 Understand the planning and design, construction, and servicing of structures and Electro mechanical systems in relation to construction activities.

10.5 Understand the resources used to transport people and goods in the construction industry.

10.6 Understand universal graphic conventions and symbols and technical manuals and specifications.

10.7 Understand the attributes of good design.

10.8 Understand the role of the construction industries sector in the California economy.

10.9 Understand the need to participate in sector-related professional improvement activities, SkillsUSA, other career technical education leadership and skill associations, and related career pathway specializations.

10.10 Understand the need to obtain and maintain

10.11 Understand the role of labor unions, both historically and currently, and the impact of unions on worker rights and protections, including wages, working conditions, health

and safety, and benefits.

A2.1 Use common hand tools and accessories, such as planers, shapers, clamping and gripping tools, pliers, wrenches, wood chisels, hammers, hand saws, and squares, safely and properly.

A2.2 Maintain and care for common hand tools.

A5.1 Know how to read, understand, design, and construct cabinets accurately from cabinetmaking fabrication and installation plans and specifications.

A5.2 Understand how to estimate a bill of materials from drawings and specifications for constructing cabinets.

A5.3 Understand how to create a job schedule in a cabinetmaking project.

A5.4 Solve common cabinetmaking problems by using construction codes and cabinet building standards stated in the Manual of Millwork.

A5.5 Understand record keeping procedures in all phases of cabinetmaking (e.g., time)

A7.1 Design and create cabinet and wood products.

A7.2 Develop a production plan, including the layout, bill of materials, and cost analysis, for the production of cabinets or wood products.

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Unit 4: Joining and Planning

Goal: Students will understand

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Learn how to use the Jointer and the Planner	<ul style="list-style-type: none"> ▪ Lecture and Demonstration ▪ Read Chapter 13 pages 201 – 217 and notes ▪ Guided practice
2. Use Jointer to joint edge and cut Rabbit	<ul style="list-style-type: none"> ▪ Lecture and Demonstration ▪ Guided practice ▪ Application to project
3. Use the planner to reduce a board in thickness	<ul style="list-style-type: none"> ▪ Lecture and Demonstration ▪ Guided practice ▪ Application to project

Content Standards: *Building Trades and Construction Industry Sector*

(1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.

(1.d) Formulate explanations by using logic and evidence.

10.2 Maintain and troubleshoot equipment used in the construction industry.

A4.1 Understand the proper and safe use of stationary power tools used in the milling process, such as shapers, sanders, joiners, table saws, and band saws.

A4.2 Understand the proper and safe use of stationary power tools used in the assembly process, such as pneumatic table clamps, case clamps, case frame fasteners, and hardware fasteners.

A4.3 Understand the proper and safe use of stationary power tools used in the finishing process, such as glue applicators, laminate applicators, and lacquer and paint applicators.

A4.4 Know the basic care, maintenance, and lock-out procedures for stationary power tools.

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Unit 5: Circular Saw

Goal: Students will understand

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Be able to rip a board to width	<ul style="list-style-type: none"> ▪ Lecture and demonstration ▪ Read chapter 14 pages 219 - 253 ▪ Apply joinery to samples or project
2. Be able to cross cut a board to finished length, insuring it is square to its adjacent sides and faces	<ul style="list-style-type: none"> ▪ Lecture and demonstration ▪ Apply joinery to samples or project
3. Learn how to change saw blades for different cutting operations	<ul style="list-style-type: none"> ▪ Lecture and demonstration
4. Learn how to set up a Dado Set for cutting Dados, Grooves and Rabbits	<ul style="list-style-type: none"> ▪ Lecture and demonstration ▪ Apply joinery to samples or project

Content Standards: *Building Trades and Construction Industry Sector*
(12.4.3) Discuss wage differences among jobs and professions, using the laws of demand and supply and the concept of productivity.

3.1 Know the personal qualifications, interests, aptitudes, knowledge, and skills necessary to succeed in careers.

3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure.

3.3 Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.

3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.

3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.

3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio.

3.7 Understand the nature of entrepreneurial activities.

9.1 Understand the characteristics and benefits of teamwork, leadership, and citizenship in the school, community, and workplace settings.

9.2 Understand the ways in which pre professional associations, such as Skills USA, and competitive career development activities enhance academic skills, promote career choices, and contribute to employability.

9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.

9.4 Know multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.

9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.

9.6 Communicate ideas to justify positions, persuade and convince others, confirm responsibility,

10.1 Understand construction processes and systems and their importance in construction technology.

10.2 Maintain and troubleshoot equipment used in the construction industry.

10.3 Use, store, and allocate materials efficiently, and use space efficiently.

10.4 Understand the planning and design, construction, and servicing of structures and electromechanical systems in relation to construction activities.

10.5 Understand the resources used to transport people and goods in the construction industry.

10.6 Understand universal graphic conventions and symbols and technical manuals and specifications.

10.7 Understand the attributes of good design.

10.8 Understand the role of the construction industries sector in the California economy.

10.9 Understand the need to participate in sector-related professional improvement activities, Skills USA, other career technical education leadership and skill associations, and related career pathway specializations.

10.10 Understand the need to obtain and maintain industry-standard, technical certifications significant to an industry sector.

10.11 Understand the role of labor unions, both historically and currently, and the impact of unions on worker rights and protections, including wages, working conditions, health and safety, and benefits.

A1.1 Know design solutions to common problems in cabinetmaking and wood products.

A1.2 Understand calculation procedures for materials and for wood product designs.

A1.3 Convert scaled drawing measurements to full dimensional layout and template applications.

A1.4 Know conventional measurement processes for cabinetmaking and wood products, linear measurements, and conversions of fractions and decimals.

A8.1 Understand significant historical trends in cabinetmaking and wood products technology.

A8.2 Understand environmental regulations that influence the cabinetmaking and wood products industry.

A8.3 Understand issues of the sustainable use of wood product resources.

A9.1 Understand the careers that are available in cabinetmaking and wood product manufacturing and related occupations (e.g., custom crafts, furniture making, marketing).

A9.2 Understand the need for professional growth across all aspects of the industry, including financial, leadership, and advancement elements.

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Unit 6: Band Saw, Jig Saw and Saber Saw

Goal: Students will understand how to use the Band Saw, Jig Saw and Saber Saw safely and properly

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Learn to cut curves on the Band Saw	<ul style="list-style-type: none">▪ Lecture and demonstration▪ Read Chapter 15 pages 155 - 270▪ View DVD on the Band Saw▪ Cut a push block using the band saw
2. Learn to layout and cut intricate curves using the Scroll Saw	<ul style="list-style-type: none">▪ Lecture and demonstration▪ Complete the practice exercise using the Scroll Saw
3. Use the hand held Saber saw to cut large sheet of Plywood or other sheet goods	<ul style="list-style-type: none">▪ Lecture and demonstration

Content Standards: *Engineering Design Pathway* –
See standards that are listed for Chapter 5

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Unit 7: Drilling Machines

- Goal:** Students will understand how:
- Select the proper type of drill bit for each kind of application
 - Understand how to use all drilling type tools in the shop, including the Drill Press, Horizontal Boring Machine, Portable Hand drills and Pocket Drill Jig

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Learn to make different size holes using a drill press and an assortment of drill bits.	<ul style="list-style-type: none"> ▪ Demonstration/ Lecture ▪ Reading chapter 16 pages 273 – 289 and notes ▪ Use of drill bits and drilling machines on the student selected project.
2. Learn to use the horizontal boring machines to create holes for dowel joints.	<ul style="list-style-type: none"> ▪ Demonstration ▪ Application to project
3. Learn to use a hand or portable drill for pieces that won't fit in the drill press.	<ul style="list-style-type: none"> ▪ Demonstration ▪ Application to project
4. Learn to use a pocket drill jig to make angled holes in face frame construction.	<ul style="list-style-type: none"> ▪ Demonstration ▪ Application to project

Content Standards: *Engineering Design Pathway*
 See standards that are listed for Chapter 5

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Unit 8: Safety Test Review

Goal: Learn how to use all tools and equipment in the shop safely.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Study and learn the safety procedures of each tool and machine.	<ul style="list-style-type: none">▪ Lecture▪ Readings on each tool and machine▪ View DVD's on each tool and machine
Take a safety test on each tool and machine with a pass rate of 100%.	<ul style="list-style-type: none">▪ Safety Test▪ Review of test

Content Standards: *Engineering Design Pathway*
See standards that are listed for Chapter 5

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Unit 9: Routers and Shapers

Goal: Students will understand how to setup and operate the Router, Router table and Shaper

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Learn how use the Router and to select Router Bits.	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Read chapter 18 pages 311 –328▪ Apply to student project
2. Learn how to setup the router and or router table.	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Apply to student project
3. Learn how to setup and use the shaper.	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Apply to student project

<p>Content Standards: <i>Engineering Design Pathway</i> See standards that are listed for Chapter 5</p>
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Unit 10: Lathe

Goal: Students will understand how to use the lathe to create bowls, Platters, and Spindles.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Design/sketch and draw a Bowl or Platter.	<ul style="list-style-type: none"> ▪ Demonstration and Lecture ▪ Read chapter 17 pages 291 - 309 ▪ Sketch and draw a Bowl or platter that can be turned on a Lathe
2. Learn to turn a bowl or platter.	<ul style="list-style-type: none"> ▪ Design and turn a decorative bowl or platter
3. Design/sketch and draw a product that can be turned on a lathe between spindles.	<ul style="list-style-type: none"> ▪ Sketch and draw a pattern that can act as a template for lathe turning
4. Learn to turn a product between spindles on a lathe.	<ul style="list-style-type: none"> ▪ From the drawing create a candlestick, tool handle, mallet that can be turned on the lathe
5. Learn to duplicate a spindle on a lathe duplicator.	<ul style="list-style-type: none"> ▪ Develop a pattern and turn a spindle using a duplicator on the lathe

<p>Content Standards: <i>Engineering Design Pathway</i> See standards that are listed for Chapter 5</p>

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Unit 11: Sanding Machines

Goal: Students will understand how to select and use the proper sander for application on their project.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Learn to use the Wide Belt Sander for large flat surfaces	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Use on student project▪ Read chapter 19 pages 331 - 343
2. Learn to use the Disk Sander for general purpose sanding rough sanding	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Use on student project
3. Learn to use the Edge Sander for edge and ends of boards and to sand uneven glue ups flush	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Use on student project
4. Learn to use a hand held Belt Sander	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Use on student project
5. Learn how to select and use a Finish Pad Sander	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Use on student project

Content Standards: *Engineering Design Pathway*

See standards that are listed for Chapter 5

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Unit 12: Gluing and Clamping

Goal: Students will understand the proper selection of Adhesives and how to make different types of joints to secure wood joints in many different applications.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Learn to glue boards together face to face and edge to edge.	<ul style="list-style-type: none"> ▪ Demo of Clamps (bar, "C", "F" and Hand Screw) ▪ Read Chapter 9 pages 123 – 137 and notes ▪ Demo of how to set up boards to insure of proper clamping
2. Learn how to cut tongue and groove for edge jointing	<ul style="list-style-type: none"> ▪ Demonstration of setting up and cutting on the table saw the T&G Joint
3. Learn to use dowel and biscuit joints for face frame joinery and to create wide panels.	<ul style="list-style-type: none"> ▪ Demonstration of the doweling machine and the hand held biscuit cutter. ▪ Quiz on Joinery
4. Learn the various types of adhesives and their applications.	<ul style="list-style-type: none"> ▪ Demonstration of the different types of adhesives, their properties and applications ▪ Quiz on adhesives

Content Standards: *Engineering Design Pathway*

See standards that are listed for Chapter 5

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Unit 13: Abrasives

Goal: Students will understand how to select and use Abrasives

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Learn to correctly select and use Abrasive paper	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Read chapter 11 pages 153 - 162
2. Learn the ways abrasives are manufactured, their materials and applications	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Teacher generated quiz
	<ul style="list-style-type: none">▪ Use abrasives on student projects

Content Standards: *Engineering Design Pathway*
See standards that are listed for Chapter 5

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Unit 14: Fasteners

Goal: Students will understand the process of selection and application of many different fasteners

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Learn to select and use screws and nails correctly to reinforce and attach parts of the project	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Read chapter 10 pages 139 - 149
2. Learn how to cut the gains for hinges, attach hasps to a cabinet door or lid of a box	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Apply to student project
3. Understand how select and install metal drawer guides, hinges, pulls and knobs	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Apply to student project
4. Learn how to make wood drawer guides	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Apply to student project

Content Standards: *Engineering Design Pathway*

See standards that are listed for Chapter 5

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Unit 15: Finishes

Goal: Students will understand how to prepare and apply the final coats of finish

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Learn how to prepare a project for final finish	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Apply to student project▪ Read chapter 12 pages 165 –197
2. Learn how to apply Wood Conditioner, Stain, and an Oil hand rubbed finish	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Apply to student project
3. Learn how to setup and spray both Sanding Sealer and Lacquer finish	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Apply to student project

Content Standards: *Engineering Design Pathway*

See standards that are listed for Chapter 5

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Unit 16: Forest Products

Goal: Students will understand that not all wood products are natural. Using natural materials and man made processes new materials increase the usefulness of many products.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Be able to identify the various species of wood material and their characteristics, estimated cost, and uses.	<ul style="list-style-type: none">▪ Demonstration▪ Lecture▪ Quiz
2. Learn the various types of man made wood products	<ul style="list-style-type: none">▪ Lecture on Melamine, MDF, OSB, Tempered Fiberboard, Plastic Laminate

Content Standards: *Engineering Design Pathway*

See standards that are listed for Chapter 5

EL DORADO UNION HIGH SCHOOL DISTRICT
Educational Services

Course Title: Woodworking and Carpentry #520

Unit 17: Review for Final Exam

Goal: Students will prepare for a final exam, organize and clean the shop

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
1. Review all process and materials covered in this class	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Teacher generated exam
2. Complete thoroughly cleaning and organizing of the shop	<ul style="list-style-type: none">▪ Lecture and Demonstration▪ Assign cleanup and organization duties to each student

Content Standards: *Engineering Design Pathway*

See standards that are listed for Chapter 5

Homework: Majority of written and Project work will be completed in class

Lab Fee: Student pays for materials taken home

Grading Policy:

5%	Written assignments
15%	Project plans
10%	Quizzes, participation and written assignments
60%	Lab assignments
10%	Final Exam