

Cabinetmaking 1/2

San Diego County Office of Education - Sweetwater Union High School District Pacing Guide/Course Description

Course Length: 2 Semesters	Classroom Instruction: 180 hours
SUHSD Course Number: 97236/97237	Grade Level: 9, 10, 11, 12
SDCOE Course Number: 552010	SDCOE Total Hours: 990 hours
CBEDS Number/Title: 5532/Cabinetmaking and Wood Products	Year of Implementation: 2012
Course Pre-requisites: None	Articulation (school/credits): None
CTE Industry Sector: Building Trades/Construction	CTE Pathway(s): Cabinetmaking and Wood Products
Job Titles: Cabinetmaker, Furniture Maker, Furniture Design, Mill Worker, Architect, Job Estimator, Finish Carpenter	
Credential Information: Preliminary or Clear Full-Time Designated Subjects CTE Teaching Credential in Building Trades and Construction	
Required Textbooks: Textbooks – Woodworking, Nancy MacDonald, Del Mar Publishing, ISBN 978-1-4018-6280-0	
<p>Course Description: Cabinetmaking 1/2 provides entry-level training in cabinetmaking. Instruction includes safety, simple machine operation, layout, assembly and construction of furniture and cabinetry. Students receive instruction in basic woodworking techniques and use standard woodworking equipment, including both hand and power tools. Cabinetmaking II provides advanced-level training in cabinetmaking. Instruction includes safety, machine operation, layout, assembly and construction of furniture and cabinetry. Students receive advanced instruction in woodworking techniques and use standard woodworking equipment, including both hand and power tools. Students may participate in on-the-job training as a part of this course. Students must meet required course standards and obtain permission of the instructor prior to an on-the-job training assignment. Students must conform to dress codes and other standards required by the training site management.</p>	

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Semester 1

Unit 1: Equipment Safety
Unit 2: Hand Tools
Unit 3: Wood Joinery
Unit 4: Hand Power Tools
Unit 5: Project Design
Unit 6: Wood and Wood Products
Unit 7: Finishing
Unit 8: Career Skills

Semester 2

Unit 1: Equipment Safety
Unit 2: Hand Tools
Unit 3: Wood Joinery
Unit 4: Hand Power Tools
Unit 5: Project Design
Unit 6: Cabinet Assembly
Unit 7: Cabinet Construction
Unit 8: Career Skills

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<u>Semester 1 - Unit 1 – Equipment Safety (20 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>1A - The student demonstrates proper and safe use of Planer</p> <p>1B - The student demonstrates proper and safe use of Joiner</p> <p>1C - The student demonstrates proper and safe use of Circular and Rip Saw</p> <p>1D - The student demonstrates proper and safe use of Radial Arm Saw</p> <p>1E - The student demonstrates proper and safe use of Abrasive Sander</p> <p>1F - The student demonstrates proper and safe use of Band Saw</p> <p>1G - The student demonstrates proper and safe use of Belt Sander</p> <p>1H - The student demonstrates proper and safe use of Spindle Sander</p> <p>1I - The student demonstrates proper and safe use of Boring Machine</p> <p>1J - The student demonstrates proper and safe use of Drill Press</p> <p>1K - The student demonstrates proper and safe use of Power Miter Saw</p> <p>1L - The student demonstrates proper and safe use of Tub Drill</p> <p>1M - The student</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ 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 A6.1 Know the safety rules in the cabinetmaking work environment. A6.2 Use hand tools (wood chisels, drills, coping saws) and power tools (routers, sanders, planers) safely in the cabinet working environment. <u>Core Academic:</u></p>	<p>A - 5 hours: What equipment is available</p> <p>B - 13 hours: Safe use of all shop equipment</p> <p>C - 2 hours: Safety Exam (each student shall pass a district approved safety exam. Instructor will keep on file a completed exam for each student)</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p>Handouts: Planer Joiner Circular & Rip Saw Radial Arm Saw Abrasive Sander Band Saw Belt Sander Spindle Sander Boring machine Drill Press Power Miter Saw Tub Drill Air Tools Face Frame Assembly Table Door Machine Edge Bander 32 mm Multi Boring Drill Sliding Table Saw Shaper Panel Saw Panel Router Lathe CNC Router CNC Boring Machine Power Feed Rip Saw</p>

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<p>demonstrates proper and safe use of Air Tools 1N - The student demonstrates proper and safe use of Face Frame Assembly Table 1O - The student demonstrates proper and safe use of Door Machine 1P - The student demonstrates proper and safe use of Edge Bander 1Q - The student demonstrates proper and safe use of Multi Boring 32 mm Drill 1R - The student demonstrates proper and safe use of Sliding Table Saw 1S - The student demonstrates proper and safe use of Shaper 1T - The student demonstrates proper and safe use of Panel Saw 1U - The student demonstrates proper and safe use of Panel Router 1V - The student demonstrates proper and safe use of Lathe 1W - The student demonstrates proper and safe use of CNC Router 1X - CNC point to Point Boring Machine 1Y - The student demonstrates proper and safe use of Power Feed 1Z - The student demonstrates proper and safe use of Rip Saw</p>			
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<u>Semester 1 - Unit 2 – Hand Tools (15 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>3A - The student has basic working knowledge of the following tools tape measure</p> <p>3B - The student has basic working knowledge of the following tools bench measure</p> <p>3C - The student has basic working knowledge of the following tools tri Square</p> <p>3D - The student has basic working knowledge of the following tools framing Square</p> <p>3E - The student has basic working knowledge of the following tools trammel points</p> <p>3F - The student has basic working knowledge of the following tools rip Saw</p> <p>3G - The student has basic working knowledge of the following tools crosscut Saw</p> <p>3H - The student has basic working knowledge of the following tools back Saw</p> <p>3I -The student has basic working knowledge of the following tools dowel centers</p> <p>3J - The student has basic working knowledge of the following tools files</p> <p>3K - The student has basic working knowledge of the following tools hand Scraper</p> <p>3L - The student has basic working knowledge of the following tools burnishing</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ 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. A6.1 Know the safety rules in the cabinetmaking work environment. A6.2 Use hand tools (wood chisels, drills, coping saws) and power tools (routers, sanders, planers) safely in the cabinet working environment. *T/VMSRP/ C2.4 Know and understand the elements of precision measuring using standard and metric systems. <u>Core Academic:</u></p>	<p>A - 5 hours: Identification</p> <p>B - 7 hours: Use and care of hand tools</p> <p>C - 1 hour: Grinding and honing of hand tools</p> <p>D - 2 hours: Personal and workplace safety</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<p>Tools</p> <p>3M - The student has basic working knowledge of the following tools hand Plane</p> <p>3N - The student has basic working knowledge of the following tools bench dog</p> <p>3O - The student has basic working knowledge of the following tools brace and Bit</p> <p>3P - The student has basic working knowledge of the following tools screwdrivers</p> <p>3Q - The student has basic working knowledge of the following tools compass</p> <p>3R - The student has basic working knowledge of the following tools Self-Centering Doweling Jig</p> <p>3S - The student has basic working knowledge of the following tools chisels</p> <p>3T - The student has basic working knowledge of the following tools hammer and Mallets</p>			
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<u>Semester 1 - Unit 3 – Wood Joinery (10 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>13A - The student demonstrates the ability to construct Dados</p> <p>13B - The student demonstrates the ability to construct Rabbits</p> <p>13C - The student demonstrates the ability to construct Grooves</p> <p>13D - The student demonstrates the ability to construct Mortise and Tenons</p> <p>13E - The student demonstrates the ability to construct Cross Laps</p> <p>13F - The student demonstrates the ability to construct Half Laps</p> <p>13G - The student demonstrates the ability to construct Dovetails</p> <p>13H - The student demonstrates the ability to construct Finger Joints</p> <p>13I - The student demonstrates the ability to construct Biscuit Joints</p> <p>13J - The student demonstrates the ability to construct Butt Joints</p> <p>13K - The student demonstrates the ability to construct Miters</p> <p>13L - The student demonstrates the ability to construct Dowel Joints</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ A7.1 Design and create cabinet and wood products.</p> <p><u>Core Academic:</u> *BTC/A/1.1M/NS/G7/ (1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.</p>	<p>A - 3 hours: Identification of various wood joints</p> <p>B - 2 hours: Various construction methods using machines, jigs and fixtures</p> <p>C - 4 hours: Skill development</p> <p>D - 1 hours: Personal and workplace safety</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<u>Semester 1 - Unit 4 – Hand Power Tools (9 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>10A - The student demonstrates the ability to safely use Router</p> <p>10B - The student demonstrates the ability to safely use Belt Sander</p> <p>10C - The student demonstrates the ability to safely use Hand Drill 1/4", 3/8", and 1/2"</p> <p>10D - The student demonstrates the ability to safely use Finish Sander</p> <p>10E - The student demonstrates the ability to safely use Power Hand Plane</p> <p>10F - The student demonstrates the ability to safely use Portable Circular Saw</p> <p>10G - The student demonstrates the ability to safely use Screw Gun</p> <p>10H - The student demonstrates the ability to safely use Nail Guns</p> <p>10I - The student demonstrates the ability to safely use Air Tools</p> <p>10J - The student demonstrates the ability to safely use Biscuit Joiner</p> <p>10K - The student demonstrates the ability to safely use Jig Saw</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ A3.1 Use portable power tools, such as single and compound miter saws, drills, sanders, saber saws, and routers, safely and appropriately.</p> <p><u>Core Academic:</u></p>	<p>A - 1 hour: Router</p> <p>B - 1 hour: Belt Sander</p> <p>C - 1 hour: Hand Drill 1/4", 3/8", and 1/2"</p> <p>D- 1 hour: Finish Sander</p> <p>G - 1 hour: Screw Gun</p> <p>H - 1 hour: Nail Gun</p> <p>J - 2 hours: - Biscuit Joiner</p> <p>K - 1 hour: Jig Saw</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<u>Semester 1 - Unit 5 – Project Design (15 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>12A - The student Plans, evaluates, organizes and communicates the information effectively with regard to design.</p> <p>12B - The student Allocates time, money, material.</p> <p>12C - The student Selects correct materials.</p> <p>12D - The student Develops show drawings and cut lists.</p> <p>12E - The student Develops and uses a story pole.</p> <p>12F - The student Understands Layout.</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ A1.1 Know design solutions to common problems in cabinetmaking and wood products. A7.1 Design and create cabinet and wood products.</p> <p><u>Core Academic:</u> *BTC/A/1.1M/NS/G7/ (1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers. *BTC/A/1.4VAPA/VA/PR/G9-2/ (1.4) Analyze and describe how the composition of a work of art is affected by the use of a particular principle of design. (1.5) Analyze the material used by a given artist and describe how its use influences the meaning of the work. *BTC/A/1.4VAPA/VA/ADV/G9-12/ (2.1) Create original works of art of increasing complexity and skill in a variety of media that reflect their feelings and points of view. (2.2) Plan and create works of art that reflect complex ideas, such as distortion, color theory, arbitrary color, scale, expressive content, and real versus virtual. *BTC/C/2.3WO/ELC/G9-10/ (1.4) Produce legible work that shows accurate spelling and correct use of the conventions of punctuation and capitalization.</p>	<p>12A - 1 hour</p> <p>12B - 1 hour</p> <p>12C - 1 hour</p> <p>12D - 10 hours</p> <p>12E - 1 hour</p> <p>12F - 1 hour</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<u>Semester 1 - Unit 6 – Wood and Wood Products (6 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>2A - The student identifies the following woods Alder</p> <p>2B - The student identifies the following woods Ash</p> <p>2C - The student identifies the following woods Backer Board</p> <p>2D - The student identifies the following woods Basswood</p> <p>2E - The student identifies the following woods Birch</p> <p>2F - The student identifies the following woods Cedar</p> <p>2G - The student identifies the following woods Cherry</p> <p>2H - The student identifies the following woods Classic Core</p> <p>2I - The student identifies the following woods Laminate</p> <p>2J - The student identifies the following woods Lumber Core Plywood</p> <p>2K - The student identifies the following woods Mahogany</p> <p>2L - The student identifies the following woods Maple</p> <p>2M - The student identifies the following woods MDF</p> <p>2N - The student identifies the following woods Melamine Covered Particle Board</p> <p>2O - The student identifies the following woods Oak</p> <p>2P - The student identifies the</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ A1.1 Know design solutions to common problems in cabinetmaking and wood products. *ANR/AMP/ B2.1 Know how to identify common wood products, lumber types, and sizes. B2.2 Know how to calculate board feet, lumber volume, and square feet.</p> <p><u>Core Academic:</u> *BTC/C/2.2W/WS/G8/ (1.4) Plan and conduct multiple-step information searches by using computer networks and modems. *BTC/C/2.2W/WS/G9-10/ (1.3) Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.</p>	<p>A - 1 hour: Lumber Milling</p> <p>B - 1 hour: Hard vs. Soft wood</p> <p>C - 1 hour: Types and use of plywood</p> <p>D - 1 hour: Cores of Plywood</p> <p>E - 1 hour: Lumber yard use of board foot measure</p> <p>F - 1 hour: Safe handling of lumber and materials</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<p>following woods Particle Board 2Q - The student identifies the following woods Pine 2R - The student identifies the following woods Poplar 2S - The student identifies the following woods Veneer Core 2T - The student identifies the following woods Walnut</p>			
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<u>Semester 1 - Unit 7 – Finishing (10 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>18A - The student Uses garnet, aluminum oxide and silicon oxide coated abrasives for surface preparation.</p> <p>18B - The student Identifies matches and applies stains, dyes and finishing.</p> <p>18C - The student Understands and uses sealers and solvents.</p> <p>18D - The student Applies and mixes oil-rubbed finishes.</p> <p>18E - The student Understands and uses lacquers, varnishes, urethanes, and acrylics.</p> <p>18F - The student Sets up and applies finishes with compressor spray system.</p> <p>18G - The student Sets up and applies finishes with HVLP.</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ A6.3 Understand how to handle and dispose of toxic materials safely and use protective clothing as needed when using lacquers, acetone, thinners, staining materials, and so forth in an environmentally responsible manner. A7.5 Use finish tools (e.g., airless sprayers, palm sanders) and techniques for finishing cabinets and wood products.</p> <p><u>Core Academic:</u></p>	<p>A - 2 hours: Surface preparation</p> <p>B - 3 hours: Identification of materials</p> <p>C - 3 hours: Application procedures</p> <p>D - 2 hours: Personal and workplace safety</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<u>Semester 1 - Unit 8 – Career Skills (5 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>17A - Accesses and utilizes technology and information.</p> <p>17B - Practices occupational safety standards.</p> <p>17C - Thinks critically and solving problems effectively.</p> <p>17D - Uses basic skills in reading, writing, mathematics, listening and speaking as they relate to occupation specific skills.</p> <p>17E - Attains a comprehensive understanding of all aspects of industry the individual is preparing to enter.</p> <p>17F - Applies knowledge to real world problems and situations.</p> <p>17G - Works independently and collaboratively.</p> <p>17H - Communicates effectively and appropriately.</p> <p>17I - Performs reliably and responsibly.</p> <p>17J - Works with diverse populations effectively and respectfully.</p> <p>17K - Is punctual.</p> <p>17L - Follows directions.</p> <p>17M - Works well with minimum supervision.</p> <p>17N - Is cooperative.</p> <p>17O - Takes initiative by working beyond minimum requirements.</p> <p>17P - Meets job standards of neatness and grooming.</p>	<p><u>Career Technical Education:</u> *BTC/CPM/ 3.1 Know the personal qualifications, interests, aptitudes, knowledge, and skills necessary to succeed in careers. 3.4 Understand the role and function of professional organizations, industry associations, and organized labor in a productive society. 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.</p> <p><u>Core Academic:</u> *BTC/C/2.2W/WSA/G11-12/ (2.5) Write job applications and résumés: a. Provide clear and purposeful information and address the intended audience appropriately. b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension. c. Modify the tone to fit the purpose and audience. d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document. *BTC/C/2.2W/WS/G9-10/ (1.3) Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.</p>	<p>17A17B – Ongoing: Job Acquisition Skills</p> <p>17C-17D-17E-17E-17F-17G – Ongoing: Problem solving/critical thinking skills and behavior</p> <p>17H – Ongoing: Verbal and non-verbal skills</p> <p>17J – Ongoing: Cultural sensitivity</p> <p>17K-17L-17M-17N-17O-17P-17Q – Ongoing: Team building</p> <p>17R – 4 hours: Resume and Application</p> <p>17S – Ongoing: Job interview</p> <p>17T – 30 minutes: Lifelong learning 17U – 30 minutes: OUTSTANDING STUDENT AWARD</p>	<p><u>Teacher Resources:</u> Job Finders Guide</p> <p><u>Student Resources:</u> Job Finders Guide Pocket Job Finders Guides</p>

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<p>17Q - Responds appropriately to constructive criticism.</p> <p>17R - Completes an appropriate resume and job application.</p> <p>17S - Acquires job interview techniques.</p> <p>17T - Attains awareness of advanced career and educational opportunities.</p> <p>17U - Received the ROP Outstanding Student Award.</p>			
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<u>Semester 2- Unit 1 – Equipment Safety (5 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>1A - The student demonstrates proper and safe use of Planer</p> <p>1B - The student demonstrates proper and safe use of Joiner</p> <p>1C - The student demonstrates proper and safe use of Circular and Rip Saw</p> <p>1D - The student demonstrates proper and safe use of Radial Arm Saw</p> <p>1E - The student demonstrates proper and safe use of Abrasive Sander</p> <p>1F - The student demonstrates proper and safe use of Band Saw</p> <p>1G - The student demonstrates proper and safe use of Belt Sander</p> <p>1H - The student demonstrates proper and safe use of Spindle Sander</p> <p>1I - The student demonstrates proper and safe use of Boring Machine</p> <p>1J - The student demonstrates proper and safe use of Drill Press</p> <p>1K - The student demonstrates proper and safe use of Chop Saw</p> <p>1L - The student demonstrates proper and safe use of Tub Drill</p> <p>1M - The student</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ 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 A6.1 Know the safety rules in the cabinetmaking work environment. A6.2 Use hand tools (wood chisels, drills, coping saws) and power tools (routers, sanders, planers) safely in the cabinet working environment. <u>Core Academic:</u></p>	<p>A - 1 hour: What equipment is available</p> <p>B - 3 hours: Safe use of all shop equipment</p> <p>C - 1 hour: Safety Exam (each student shall pass a district approved safety exam. Instructor will keep on file a completed exam for each student)</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts: Planer Joiner Circular & Rip Saw Radial Arm Saw Abrasive Sander Band Saw Belt Sander Spindle Sander Boring machine Drill Press Chop Saw Tub Drill Air Tools Face Frame Assembly Table Door Machine Edge Bander 32 mm Multi Boring Drill Sliding Table Saw Shaper Panel Saw Panel Router Lathe CNC Router CNC Boring Machine Power Feed Rip Saw</p>

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<p>demonstrates proper and safe use of Air Tools 1N - The student demonstrates proper and safe use of Face Frame Assembly Table 1O - The student demonstrates proper and safe use of Door Machine 1P - The student demonstrates proper and safe use of Edge Bander 1Q - The student demonstrates proper and safe use of Multi Boring 32 mm Drill 1R - The student demonstrates proper and safe use of Sliding Table Saw 1S - The student demonstrates proper and safe use of Shaper 1T - The student demonstrates proper and safe use of Panel Saw 1U - The student demonstrates proper and safe use of Panel Router 1V - The student demonstrates proper and safe use of Lathe 1W - The student demonstrates proper and safe use of CNC Router 1X - CNC point to Point Boring Machine 1Y - The student demonstrates proper and safe use of Power Feed 1Z - The student demonstrates proper and safe use of Rip Saw</p>			
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<u>Semester 2 - Unit 2 – Hand Tools (10 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>3A - The student has basic working knowledge of the following tools tape measure</p> <p>3B - The student has basic working knowledge of the following tools bench measure</p> <p>3C - The student has basic working knowledge of the following tools tri Square</p> <p>3D - The student has basic working knowledge of the following tools framing Square</p> <p>3E - The student has basic working knowledge of the following tools trammel points</p> <p>3F - The student has basic working knowledge of the following tools rip Saw</p> <p>3G - The student has basic working knowledge of the following tools crosscut Saw</p> <p>3H - The student has basic working knowledge of the following tools back Saw</p> <p>3I -The student has basic working knowledge of the following tools dowel centers</p> <p>3J - The student has basic working knowledge of the following tools files</p> <p>3K - The student has basic working knowledge of the following tools hand Scraper</p> <p>3L - The student has basic working knowledge of the</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ 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. A6.1 Know the safety rules in the cabinetmaking work environment. A6.2 Use hand tools (wood chisels, drills, coping saws) and power tools (routers, sanders, planers) safely in the cabinet working environment. <u>Core Academic:</u></p>	<p>A - 5 hours: Identification</p> <p>B - 7 hours: Use and care of hand tools</p> <p>C - 1 hour: Grinding and honing of hand tools</p> <p>D - 2 Hours: Personal and workplace safety</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<p>following tools burnishing Tools 3M - The student has basic working knowledge of the following tools hand Plane 3N - The student has basic working knowledge of the following tools bench dog 3O - The student has basic working knowledge of the following tools brace and Bit 3P - The student has basic working knowledge of the following tools screwdrivers 3Q - The student has basic working knowledge of the following tools compass 3R - The student has basic working knowledge of the following tools Self-Centering Doweling Jig 3S - The student has basic working knowledge of the following tools chisels 3T - The student has basic working knowledge of the following tools hammer and Mallets</p>			
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<u>Semester 2 - Unit 3 – Joinery (10 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>13A - The student demonstrates the ability to construct Dados</p> <p>13B - The student demonstrates the ability to construct Rabbits</p> <p>13C - The student demonstrates the ability to construct Grooves</p> <p>13D - The student demonstrates the ability to construct Mortise and Tenons</p> <p>13E - The student demonstrates the ability to construct Cross Laps</p> <p>13F - The student demonstrates the ability to construct Half Laps</p> <p>13G - The student demonstrates the ability to construct Dovetails</p> <p>13H - The student demonstrates the ability to construct Finger Joints</p> <p>13I - The student demonstrates the ability to construct Biscuit Joints</p> <p>13J - The student demonstrates the ability to construct Butt Joints</p> <p>13K - The student demonstrates the ability to construct Miters</p> <p>13L - The student demonstrates the ability to construct Dowel Joints</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ A7.1 Design and create cabinet and wood products.</p> <p><u>Core Academic:</u> *BTC/A/1.1M/NS/G7/ (1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.</p>	<p>A - 1 hour: Identification of various wood joints</p> <p>B - 1 hour: Various construction methods using machines, jigs and fixtures</p> <p>C - 7 hour: Skill development</p> <p>D - 1 hour: Personal and workplace safety</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<u>Semester 2 - Unit 4 – Power Tools (15 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>10A - The student demonstrates the ability to safely use Router</p> <p>10B - The student demonstrates the ability to safely use Belt Sander</p> <p>10C - The student demonstrates the ability to safely use Hand Drill 1/4", 3/8", and 1/2"</p> <p>10D - The student demonstrates the ability to safely use Finish Sander</p> <p>10E - The student demonstrates the ability to safely use Power Hand Plane</p> <p>10F - The student demonstrates the ability to safely use Portable Circular Saw</p> <p>10G - The student demonstrates the ability to safely use Screw Gun</p> <p>10H - The student demonstrates the ability to safely use Nail Guns</p> <p>10I - The student demonstrates the ability to safely use Air Tools</p> <p>10J - The student demonstrates the ability to safely use Biscuit Joiner</p> <p>10K - The student demonstrates the ability to safely use Jig Saw</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ A3.1 Use portable power tools, such as single and compound miter saws, drills, sanders, saber saws, and routers, safely and appropriately.</p> <p><u>Core Academic:</u></p>	<p>A - 1 hour: Router</p> <p>B - 1 hour: Belt Sander</p> <p>C - 1 hour: Hand Drill 1/4", 3/8", and 1/2"</p> <p>D- 1 hour: Finish Sander</p> <p>G - 1 hour: Screw Gun</p> <p>H - 1 hour: Nail Gun</p> <p>J - 2 hours: - Biscuit Joiner</p> <p>K - 1 hour: Jig Saw</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<u>Semester 2 - Unit 5 – Project Design (15 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>12A - The student Plans, evaluates, organizes and communicates the information effectively with regard to design.</p> <p>12B - The student Allocates time, money, material.</p> <p>12C - The student Selects correct materials.</p> <p>12D - The student Develops show drawings and cut lists.</p> <p>12E - The student Develops and uses a story pole.</p> <p>12F - The student Understands Layout.</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ A1.1 Know design solutions to common problems in cabinetmaking and wood products. 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.</p> <p><u>Core Academic:</u> *BTC/A/1.1M/NS/G7/ (1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers. *BTC/A/1.1M/A1/G8-12/ (15.0) Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems. *BTC/A/1.4VAPA/VA/PR/G9-2/ (1.4) Analyze and describe how the composition of a work of art is affected by the use of a particular principle of design. (1.5) Analyze the material used by a given artist and describe how its use influences the meaning of the work. (2.6) Create a two- or three-dimensional work of art that addresses a social issue. *BTC/A/1.4VAPA/VA/ADV/G9-12/ (2.1) Create original works of art of increasing complexity and skill in a variety of media that reflect their feelings and points of view. (2.2) Plan and create works of art that reflect complex ideas, such as distortion, color</p>	<p>12A - 1 hour</p> <p>12B - 1hour</p> <p>12C - 1 hour</p> <p>12D - 10 hours</p> <p>12E - 1 hour</p> <p>12F - 1 hour</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<u>Semester 2 - Unit 6 – Cabinet Assembly (15 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>14A - The student demonstrates the ability to use Bar Clamps</p> <p>14B - The student demonstrates the ability to use C-Clamps</p> <p>14C - The student demonstrates the ability to use Hand-Screw Clamps</p> <p>14D - The student demonstrates the ability to use Band Clamps</p> <p>14E - The student demonstrates the ability to use Nailing and use of screws.</p> <p>14F - The student demonstrates the ability to use Face Frame Clamps</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ 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. A7.4 Use stationary and portable power tools in the assembly of cabinet and wood product components. <u>Core Academic:</u> *BTC/A/1.1M/NS/G7/ (1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers. *BTC/A/1.1M/A1/G8-12/ (15.0) Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.</p>	<p>14A - 4 hours</p> <p>14B - 2 hours</p> <p>14C - 2 hours</p> <p>14D - 2 hours</p> <p>14E - 2 hours</p> <p>14F - 3 hours</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<u>Semester 2 - Unit 7 – Cabinet Construction (15 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>15A - The student demonstrates the ability to construct or install Face Frames</p> <p>15B - The student demonstrates the ability to construct or install Face Frames with Screws</p> <p>15C - The student demonstrates the ability to construct or install Drawers</p> <p>15D - The student demonstrates the ability to construct or install Doors</p> <p>15E - The student demonstrates the ability to construct or install Toe Kicks</p> <p>15F - The student demonstrates the ability to construct or install Hardware and Fasteners</p> <p>15G - The student demonstrates the ability to construct or install Cabinets</p> <p>15H - The student demonstrates the ability to construct or install Trim and Molding</p> <p>15I - The student demonstrates the ability to construct or install Cabinet Installation and clean-up</p>	<p><u>Career Technical Education:</u> *BTC/CWP/ 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. A7.3 Use stationary and portable power tools in milling the components for cabinets and wood products. <u>Core Academic:</u> *BTC/A/1.1M/NS/G7/ (1.2) Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers. *BTC/A/1.1M/A1/G8-12/ (15.0) Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems. (8.0) Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures. (11.0) Students determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids. (12.0) Students find and use measures of sides and of interior and exterior angles of triangles and polygons to classify figures and solve problems. (15.0) Students use the Pythagorean theorem to determine distance and find missing lengths of sides of right triangles.</p>	<p>A - 3 hours: Case construction</p> <p>B - 2 hours: Face frame construction</p> <p>C - 3 hours: Cabinet door and drawer construction</p> <p>D - 1 hour: Toe kick assemblies</p> <p>E - 1 hour: D Fasteners</p> <p>F - 4 hours: Installation</p> <p>G - 1 hour: Personal and workplace safety</p>	<p><u>Teacher Resources:</u> Textbook – “Woodworking” by Nancy MacDonald</p> <p><u>Student Resources:</u> Textbook – “Woodworking” by Nancy MacDonald Handouts</p>

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<u>Semester 2 - Unit 8 – Career Skills (5 hours)</u>			
Competencies	Standards	Suggested Pacing	Resources/Materials
<p>17A - Accesses and utilizes technology and information.</p> <p>17B - Practices occupational safety standards.</p> <p>17C - Thinks critically and solving problems effectively.</p> <p>17D - Uses basic skills in reading, writing, mathematics, listening and speaking as they relate to occupation specific skills.</p> <p>17E - Attains a comprehensive understanding of all aspects of industry the individual is preparing to enter.</p> <p>17F - Applies knowledge to real world problems and situations.</p> <p>17G - Works independently and collaboratively.</p> <p>17H - Communicates effectively and appropriately.</p> <p>17I - Performs reliably and responsibly.</p> <p>17J - Works with diverse populations effectively and respectfully.</p> <p>17K - Is punctual.</p> <p>17L - Follows directions.</p> <p>17M - Works well with minimum supervision.</p> <p>17N - Is cooperative.</p> <p>17O - Takes initiative by working beyond minimum requirements.</p> <p>17P - Meets job standards of neatness and grooming.</p>	<p>Career Technical Education: *T/VMSRP/</p> <p>C5.0 Students understand and apply appropriate business practices</p> <p>C5.3 Understand the importance of and the procedures for maintaining accurate records (e.g., business licenses, repair orders, billing and tax records).</p> <p>C5.4 Understand the concept and application of accepted ethical business practices.</p> <p>C5.5 Understand the concept and application of acceptable customer relations practices.</p> <p>Core Academic:</p> <p>*T/C/2.2W/WSA/G11-12/</p> <p>(2.5) Write job applications and résumés:</p> <p>a. Provide clear and purposeful information and address the intended audience appropriately.</p> <p>b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension.</p> <p>c. Modify the tone to fit the purpose and audience.</p> <p>d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document.</p>	<p>17A17B – Ongoing: Job Acquisition Skills</p> <p>17C-17D-17E-17F-17G – Ongoing: Problem solving/critical thinking skills and behavior</p> <p>17H – Ongoing: Verbal and non-verbal skills</p> <p>17J – Ongoing: Cultural sensitivity</p> <p>17K-17L-17M-17N-17O-17P-17Q – Ongoing: Team building</p> <p>17R – 4 hours: Resume and Application</p> <p>17S – Ongoing: Job interview</p> <p>17T – 30 minutes: Lifelong learning</p> <p>17U – 30 minutes: OUTSTANDING STUDENT AWARD</p>	<p>Teacher Resources:</p> <p>Student Resources:</p> <p>Student Workbook to accompany textbooks</p> <p>Job Finders Guide</p> <p>Pocket Job Finders Guides</p>

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<p>17Q - Responds appropriately to constructive criticism.</p> <p>17R - Completes an appropriate resume and job application.</p> <p>17S - Acquires job interview techniques.</p> <p>17T - Attains awareness of advanced career and educational opportunities.</p> <p>17U - Received the ROP Outstanding Student Award.</p>			
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