# ACALANES UNION HIGH SCHOOL DISTRICT VOCATIONAL/CAREER EDUCATION Subject Area

**Adopted:** <u>1/14/04</u>

COURSE TITLE: Introductory Wood Technology

COURSE CODE: TO847e

GRADE LEVEL: 9, 10, 11, 12

COURSE LENGTH: One Year

PREREQUISITE: None

CREDIT: 10 units

UC/CSU CREDIT: None

GRADUATION REQUIREMENT: Fulfills 10 units of Career/Technology, Visual and Performing Arts, Foreign Language graduation

requirement

STANDARDS AND

<u>BENCHMARKS</u> Wood Technology: 1a, 1b, 1c, 1d, 1e, 1g, 1h, 1i; 2a, 2b; 3a, 3b, 3c, 3d

COURSE DESCRIPTION Introductory Wood Technology provides students with the knowledge to safely operate and maintain both hand and power tools as well

as woodworking machines. Throughout the year, students will complete several projects while learning the identification and use of

tools and woods, and basic joinery and finishing techniques. Emphasis is placed on safety, responsibility, and cooperation.

COURSE GOALS Student will understand and apply the following principles: 1) planning 2) layout 3) materials 4) assembly 5)

finishing processes 6) shop, hand-tool and machine safety in the workshop 7) and craftsmanship and technical

skills.

<u>TEXTBOOK MATERIALS</u> <u>Technical Woodworking</u>; Groneman & Glazanes; McGraw Hill, 1966

<u>Cabinetmaking and Millwork</u>; Feirer; Chas. A. Bennett, 1970 <u>Woodworking for Industry</u>; Feirer; Chas. A. Bennett, 1984

TEACHER RESOURCES Periodicals: Wood, Fine Woodworking, Popular Woodworking, Woodsmith, American Woodworker, Woodwork; videos,

internet, specialty books

	CAT-6	HSEE	Standards & Benchmarks	based tests (CST)	Assessment	Timeline
1.0 GENERAL INTRODUCTION STUDENT UNDERSTANDS PRINCIPLES OF SHOP, HAND TOOL, AND MACHINE SAFETY IN THE WOODSHOP.	N/A	N/A	3.0	N/A		Ongoing 1st Qtr (3 days)
1.1 Understands and follows Shop Skills/Classroom rules			3A		Selected Response	
1.2 Understands and follows General Safety Rules			3A		Selected Response	
1.3 Understands and heeds Behavior Policies			3A		Personal Comm.	
1.4 Understands and follows Emergency Procedures (Fire, Earthquake)			3A		Performance/ Product (5%)	
2.0 INTRODUCTION TO WOODWORKING STUDENT UNDERSTANDS AND APPLIES THE PRINCIPLES OF PLANNING, LAYOUT, MATERIALS, ASSEMBLY, AND FINISHING PROCESSES USED IN WOOD TECHNOLOGY.	N/A	N/A	1.0, 3.0	N/A		
2.1 Understands and uses correct measuring practices using the standard foot/inch system, including fractions.			1A,1D,1G		Selected Response Constructed Response Performance/ Product	1 <sup>st</sup> Qtr (2 days)
<ul> <li>2.2 Understands, safely and properly uses, and maintains Hand Tools including:</li> <li>a. Layout tools</li> <li>b. Edged tools</li> <li>c. Hand saws</li> </ul>			1A,1B,1H,3C,		Selected Response Performance/ Product (10%)	1 <sup>st</sup> Qtr (14 days)

				Standards &	based tests		
		CAT-6	HSEE	Benchmarks	(CST)	Assessment	Timeline
	d. Drilling and boring tools						
	e. Miscellaneous hand tools						
	f. Files and rasps						
	g. Abrasives						
	h. Clamps and Vises						
	i. Japanese hand tools						
	j. Sharpening						
2.3	Understands and appropriately uses Wood			1B		Selected	Ongoing
	and its Terminology, including:					Response	(2 days)
	a. Structure and physical make-up of wood					Performance/	
	b. Solid stock					Product	
	c. Sheet goods					(1%)	
	d. Species of woods						
2.4	Understands and is able to calculate board-feet			1D		Selected	Ongoing
	and the cost of various forms of lumber					Response	(1 day)
	including:					Performance	
	a. Solid stock					/Product	
	b. Sheet goods					(1%)	
2.5	Understands and uses appropriate Joints and			1B,1E		Selected	Ongoing
	Joinery, including:					Response	(2 days)
	a. Types of joints					Performance	
	b. Fasteners					/Product	
	c. Glues					(1%)	
2.6	Understands and uses appropriate Finishes			1C; 3D		Selected	Ongoing
	and Coatings, including:					Response	(1 day)
	a. Clear finishes					Performance	
	b. Stains					/Product	
	c. Paints					(2%)	

			Standards &	based tests		
	CAT-6	<b>HSEE</b>	<b>Benchmarks</b>	(CST)	Assessment	Timeline
3.0 CRAFTSMANSHIP STUDENT APPLIES ARTISTIC KNOWLEDGE AND SKILLS IN A VARIETY OF VISUAL ARTS MEDIA AND TECHNICAL PROCESSES TO COMMUNICATE MEANING AND INTENT THROUGH THE CREATION OF ORIGINAL ART WORKS.	N/A	N/A	2.0	N/A		Ongoing
3.1 Understands and applies Four Point Performance Rubric on craftsmanship.			2.B		Performance /Product	2 <sup>nd</sup> Qtr (12 days)
4.0 PROJECT NUMBER ONE.	N/A	N/A	1.0, 3.0	N/A		
4.1 Demonstrates ability to use hand tools in constructing a project, such as a <b>Shaker peg rack</b> .			1A,1B,1C,1D, 1E,1I,3A,3C, 3D		Performance /Product (5%)	
5.0 MACHINES AND POWER TOOLS  5.1 Understands and safely and properly uses Machines and Power Hand Tools including (but not necessarily all):  a. Scroll saw b. Band saw c. Radial arm saw d. Table saw e. Chop (power miter) saw f. Jointer g. Planer h. Drill press	N/A	N/A	1.0, 3.0 1 B,3A,3B	N/A	Selected Response Performance /Product (10%)	Ongoing (14 days)

	_	_	Standards &	based tests		
	CAT-6	HSEE	Benchmarks	(CST)	Assessment	Timeline
<ul> <li>i. Dowel machine</li> <li>j. Vertical belt sander</li> <li>k. Disc sander</li> <li>l. Spindle sander</li> <li>m. Drum sander</li> <li>n. Lathe</li> <li>o. Jig (or Saber) saw</li> <li>p. Hand drill (corded and cordless)</li> <li>q. Belt sander</li> <li>r. Random orbit sander</li> <li>s. Palm sander</li> <li>t. Plate joiner</li> </ul>						
<ul> <li>u. Router (and Router Table)</li> <li>6.0 PROJECT NUMBER TWO. CUTTING BOARD.</li> <li>6.1 Demonstrates the ability to use power tools and machinery in constructing a project, such as a cutting board, with variations allowing for aesthetic choices.</li> </ul>	N/A	N/A	1.0, 2.0, 3.0 1A,1B,1C, 1D,1E,1G, 1I,2B,3A,3B, 3C,3D	N/A	Performance /Product (5%)	3 <sup>rd</sup> Qtr Ongoing (10 days)
<ul><li>7.0 SELECTED PROJECTS</li><li>7.1 Constructs a project or projects from a variety of selections, or constructs a project or projects of his own design.</li></ul>	N/A	N/A	1.0, 2.0, 3.0 1A,1B,1C, 1D,1E,1G, 1I,2A,2B,3A, 3B,3C,3D	N/A	Performance /Product (60%)	3 <sup>rd</sup> , 4 <sup>th</sup> , Qtr Ongoing (119 days)

#### **TEACHING STRATEGIES AND PROCEDURES**

Lectures Demonstrations

Videos Guest Lecturers/Demonstrations

Peer Tutoring

#### **GRADING GUIDELINES**

Projects graded according to a 4 point performance rubric encompassing 8 categories of craftsmanship.

Tests/Quizzes: 30% Projects: 60% Participation/Class work: 10%