ACALANES UNION HIGH SCHOOL DISTRICT **Adopted:** 1/14/04

VOCATIONAL/CAREER EDUCATION

Subject Area

COURSE TITLE: Advanced Wood Technology

COURSE CODE: TO847e

GRADE LEVEL: 10, 11, 12

COURSE LENGTH: One Year

PREREQUISITE: Introductory Wood Technology

CREDIT: 10 units; May be repeated for up to 20 units

UC/CSU CREDIT: None

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

STANDARDS AND BENCHMARKS: Wood Technology: 1a, 1b, 1c, 1d, 1e, 1f, 1g, 1h, 1i; 2b; 2d, 2e, 3a, 3b, 3c, 3d, 4a, 4b, 4c, 4d

COURSE DESCRIPTION: Advanced Wood Technology provides the student with the opportunity to further develop the skills learned in Introductory Wood Technology, with the addition of advanced joinery and finishing techniques, and the use of additional materials such as plastics, metals, and casting resins. Students will be encouraged to plan and develop projects of their own conception. Throughout the year, 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.

TEXTBOOK MATERIALS: Technical Woodworking; Groneman & Glazanes; McGraw Hill, 1966
Cabinetmaking and Millwork; Feirer; Chas. A. Bennett, 1975
Woodworking for Industry; Feirer; Chas. A. Bennett, 1984

TEACHER RESOURCES: Periodicals: *Wood*, *Fine Woodworking*, *Popular Woodworking*, *Woodsmith*, *American Woodworker*, *Woodwork*; videos, internet, specialty books

Acalanes Union High School District
Course Content and Performance Objectives
Advanced Wood Technology

	CAT-6	HSEE	Standards & Benchmarks	Standards-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		
1.1 Understands and follows Shop Skills/Classroom rules			3A		Selected Response	Ongoing 1st Qtr (3 days)
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 (4%)	
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	Ongoing 1st Qtr (2 days)
2.2 Maintains a portfolio (notebook) of project and instructional materials			1F		Product	Ongoing

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	CAT-6	HSEE	Standards & Benchmarks	Standards-based tests (CST)	Assessment	Timeline
2.3 Understands, safely and properly uses, and maintains Hand Tools including: a. Layout tools b. Edged tools c. Hand saws 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			1A,1B,1H,3C,		Performance /Product Selected Response Performance /Product (10%)	Ongoing 1st Qtr (1 day)
2.4 Understands and appropriately uses Wood and its Terminology, including: a. Structure and physical make-up of wood b. Solid stock c. Sheet goods d. Species of woods			1B		Performance /Product	Ongoing
2.5 Understands and is able to calculate board-feet and the cost of various forms of lumber including: a. Solid stock b. Sheet goods			1D		Performance /Product	Ongoing

	CAT-6	HSEE	Standards & Benchmarks	Standards-based tests (CST)	Assessment	Timeline
2.6 Understands and uses appropriate Joints and advanced Joinery, including: a. Types of advanced joints b. Fasteners c. Glues			1B,1E, 1H		Selected Response Performance /Product (2%)	Ongoing 1st Qtr (2 days)
2.7 Understands and uses appropriate Finishes and Coatings, including: a. Clear finishes b. Stains and other color altering methods c. Paints and other coatings			1C, 3D		Selected Response Performance /Product (2%)	Ongoing 1st Qtr (3 day)
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		
3.1 Understands and applies Four Point Performance Rubric on craftsmanship.			2B		Performance /Product	Ongoing
4.0 **Machines and Power Tools (Safety Review)**	N/A	N/A	1.0, 3.0			
4.1 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			1A,1B,1C,1D, 1E,1I,3A,3C, 3D		Selected Response Performance /Product (5%)	Ongoing (4 days)

	CAT-6	HSEE	Standards & Benchmarks	Standards-based tests (CST)	Assessment	Timeline
d. Table saw e. Chop (power miter) saw f. Jointer g. Planer h. Drill press i. Dowel machine j. Vertical belt sander k. Disc sander l. Spindle sander m. Drum sander n. Lathe o. Jig (or Saber) saw p. Hand drill (corded and cordless) q. Belt sander r. Random orbit sander s. Palm sander t. Plate joiner **u.** Router (and Router Table)						
5.0 Industry and Career Opportunities	N/A	N/A	4.0	N/A		3rd Qtr (1 day)
5.1 Understands the various aspects of the wood technology industry and related career opportunities, including: a. How a political organization can impact the operation of a company. b. Basic financial issues including accounting, estimating and bidding, etc.			4A, 4B, 4C, 4D		Selected Response (2%)	

	CAT-6	HSEE	Standards & Benchmarks	Standards-based tests (CST)	Assessment	Timeline
c. Labor issues, such as job description, worker rights, etc. d. Principles of technology, advances in technology, training, etc.						
6.0 Selected Projects.	N/A	N/A	1.0, 2.0, 3.0	N/A		1st, 2nd, 3rd, 4th, Qtr, Ongoing (154 days)
6.1 Students will construct a project or projects (depending upon their complexity and degree of difficulty) from a variety of selections, or they will construct a project or projects of their own design. Projects will utilize advanced joinery, decorative, and finishing techniques.			1A,1B,1C, 1D,1E,1G, 1I,2B, 2D, 2E, 3A, 3B,3C,3D		Performance /Product (75%)	

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 and quizzes:	15%
Projects:	65%
Participation/Class work:	20%