Effective Date: 2009

Hamburg Area School District

Name of Course: Wood Technology II
Department: Industrial Technology and Engineering

Grade Level: 9-12
Instructional Time: 180 days
Length of Course: 30 cycles
Period Per Cycle: 6
Length of Period: 43 minutes

Texts and Resources:

Wood Technology and Processes
Modern Woodworking
Exploring Woodworking
Modern Cabinetmaking
Fine Woodworking Magazine
Woodworking News Magazine
Woodworkers Journal Magazine
Shop Notes Magazine
American Woodworker Magazine
Workbench Magazine
Shopware 16 Tape Safety Series
Field Trips
Computer Websites
CAD software
Text CD ROM

Assessments:

Individual Projects
Group Projects
Chapter Questions
Tests and Quizzes
Self Evaluations
Rubrics
Self Evaluations
Teacher Conferences
Demonstrations
Notebooks
Shop operation and procedures
Exhibit Safe Shop Practices

Hamburg Area School District
Course Plan
(Industrial Technology & Engineering)

Course Name: Wood Technology II
Unit: Shop Safety **Time Line: Six Cycles**

Essential Content/ Essential Questions	Performance Objectives	Standards/Anchors
General Safety	• Tell why safety is really attitude • Discuss common woodshop hazards and how to prevent problems. • Describe different types of personal safety gear and tell their purpose. • Describe how to set up a safe workshop. • Discuss the use of first aid for common workshop injuries.	3.7.10 A 3.7.12 A
Fire Safety	• Identify possible fire hazards within the workshop • Identify and discuss how to properly use a fire extinguisher • Explain the proper steps to take in the event of an actual fire in the workshop.	3.7.10 A 3.7.12 A
Machine Safety and Operation (Major Machines)	• Identify and discuss general machine safety rules • Identify and understand the safety rules and operating procedures for the planer • Identify and understand the safety rules and operating procedures for the jointer • Identify and understand the safety rules and operating procedures for the table saw • Identify and understand the safety rules and operating procedures for the radial arm saw • Identify and understand the safety rules and operating procedures for the band saw • Identify and understand the safety rules and operating procedures for the shaper	3.7.10 A 3.7.12 A

Hamburg Area School District
Course Plan
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Course Name: Wood Technology II
Unit: Working With Wood **Time Line: Two Cycles**

Essential Content/ Essential Questions	Performance Objectives	Standards/Anchors
The Woodworking Industry	• Discuss the commercial importance of wood • Explain how wood is harvested and processed • Describe the different classifications for wood and wood materials • Understand and apply the problem-solving process • Describe several woodworking careers • Discuss ways in which to find and keep a job	3.7.10 A,B 3.7.12 A,B
The Wood Technology Project	• Understand and interpret a basic wood project working drawing • Identify and understand the basic steps involved in beginning a project • Understanding a stock cutting list • Understanding basic woodworking terminology • Understanding basic fractional measurement on a customary rule • Identify and follow a project plan • Identify different species of wood	3.6.10 B,C 3.6.12 C

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Course Plan

(Industrial Technology and Engineering)

Course Name: Wood Technology II
Unit: Project Development **Time Line: ``Four cycles**

Essential Content/ Essential Questions	Performance Objectives	Standards/Anchors
Designing and Planning	• Choose a project of the students liking that matches his/her skill level, time constraints, and budget considerations. • Identify the various keys to good design and apply it to a project • Identify at least three basic principles of design and apply them to a project • Develop the views shown in a three-view working drawing and apply them to a project • Correctly read drawings in order to lay out materials • Make a bill of materials • Use a formula to calculate board feet to figure lumber needs • List the main steps in designing, planning, and completing a woodworking project	3.6.10 B,C 3.6.12 C

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Course Name: Wood Technology II
Unit: Project construction **Time Line: Twelve Cycles**

Essential Content/ Essential Questions	Performance Objectives	Standards/Anchors
Initiate project work	• Identify how and where to start on project work • Solve problems through the problem solving process as they arise throughout project work period • Think critically to avoid problems before they arise • Operate major and minor machines with the necessary procedures to start, and complete a project of students choice	3.6.10 B,C 3.6.12 C 3.7.10 A,B 3.7.12 A,B

Hamburg Area School District
Course Plan
(Industrial Technology and Engineering)

Course Name: Wood Technology II
Unit: Advanced Joinery and Assembly **Time Line: Six Cycles**

Essential Content/ Essential Questions	Performance Objectives	Standards/Anchors
Mortise-and- Tenon Joint	• Describe a mortise- and- tenon joint • Explain how the length, width and thickness of the tenon are determined • Explain how hand tools are used to make a mortise-and-tenon joint • Identify the power tools used to make a mortise-and-tenon joint • Assemble a mortise and tenon joint	3.6.10 B,C 3.6.12 B,C 3.7.10 A,B 3.7.12 A,B
Dovetail Joints and Casework	• Make a dovetail joint using a dovetail jig and a router with a dovetail bit • Build a project using simple casework construction • List five methods of installing shelves within a bookcase • Construct a drawer • Make a paneled door	3.6.10 B,C 3.6.12 B,C 3.7.10 A,B 3.7.12 A,B
Gluing and Clamping	• Select the correct adhesive for specific gluing jobs • Select the appropriate clamps for holding glued parts • Correctly glue up and clamp an edge joint • Prepare a laminate for a wood project • List the advantages of making a trial assembly	3.6.10 B,C 3.6.12 B,C 3.7.10 A,B 3.7.12 A,B
Using Fasteners	• Discuss tips and gluelines to be followed when working with screwdrivers and screws • Explain how a clearance should be drilled • Describe the process of countersinking for flathead screws • Demonstrate how to drive a wood screw	3.6.10 B,C 3.6.12 B,C 3.7.10 A,B 3.7.12 A,B

Hamburg Area School District
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Course Name: Wood Technology II
Unit: Advanced Joinery and Assembly **Time Line: Six Cycles**

Essential Content/ Essential Questions	Performance Objectives	Standards/Anchors
Installing Hardware	• Name and give examples of the two basic types of hardware needed to build a project • Select an appropriate type of hinge to serve a specific purpose • Install drawer knobs and pulls • Select and install the appropriate type of repair plate for a specific purpose	3.6.10 B,C 3.6.12 B,C 3.7.10 A,B 3.7.12 A,B