Conneaut School District

Planned Course for: WOOD TECHNOLOGY II Date Revised: July 2000

Course Description:

Course content will be the same as Wood Technology I, since these courses are taught in a combined class. The students at this level will be given more responsibilities and will be expected to perform at a higher level of proficiency. Students will combine prior knowledge and experiences with new exposure to machine woodworking operations and methods. Students will be involved in the entire manufacturing process: research, design, drawing, planning and construction of his/her own individualized projects. With this approach, the student has a chance to progress at his/her own rate and to exercise his/her own desires.

Students will be expected to pay for a portion of his/her total project prior to the beginning of the project. The balance of payment for his/her project will be due upon the completion and removal of the project from school property.

Length of course: (X) Semester – Intensive Schedule ( ) Quarter ( ) Other _____

Type of Offering: ( ) Required ( ) Elective ( ) Selective _____

Credit: One

Prerequisite (s): Completion of Wood Technology I with a minimum of 73% average

Goal: The goals of Wood Technology II are:

(1) To help every student acquire knowledge and develop practices necessary to maintain physical and emotional well being.
(2) To help every student acquire communication skills of understanding, speaking, reading and writing.
(3) To help every student acquire the knowledge, skills and attitudes necessary to become a self-supporting member of society.
(4) To help every student acquire skills in mathematics.
(5) To help every student acquire knowledge, understanding, and appreciation of science and technology.

COURSE OBJECTIVES:

(1) To develop in each student a measure of skill in the use of common tools and machines (3.5C)
(2) To provide general all-around technical knowledge and skills. (3.5C)
(3) To discover and to develop creative technical talents in students (3.9B)
(4) To develop problem solving skills relating to materials and processes (3.7B)
(5) To develop an understanding of our technological culture (3.7C)
(6) To help students make informed educational and occupational choices (3.9B)
(7) To develop consumer knowledge and appreciation and use of industrial products (3.9B)
(8) To provide prevocational experience of an intensified nature for those students interest in technical work (3.7B)
(9) To develop an understanding of the nature and characteristics of technology (3.9)
(10) To develop a sense in the order of designing and evaluating quality products (3.7C)
(11) To identify the needs of a project, design, sketch, plan and build this product to an acceptable standard of quality (3.6A)
(12) To discover the importance of proper work habits related to the efficient use of materials and time (3.6A)
(13) To develop an understanding of technological and manufacturing systems and their components (3.8A)
(14) To become familiar with the various research and development and manufacturing processes (3.5C)
(15) To become familiar with business and management organization (3.5C)
(16) To become familiar with the development and use of automated manufacturing processes (3.6A)
(17) To explore and develop human potential related to the responsible work and citizenship roles in a technological society (3.9B)

Wood Technology II, Grade Level: $11^{th} - 12^{th}$

Course Contents By Units: 90 Days (85 min. period)	**Learning Strategies including Enrichments/Adaptations**	**Assessment Measures/Expected Levels of Achievement**

Manufacturing Systems (5 days)
• Technological systems
• Manufacturing system components
Manufacturing Materials (10 days)
• Wood Science
  • nature of wood
  • wood movement
  • conservation
• Types of Materials
  • points to consider when buying wood
  • lumber defects
  • choosing lumber for projects
  • descriptions of wood
Manufacturing Processes (25 days)
• Hard woodworking
  • handling, selecting and cutting stock
  • hand tool usage
  • gluing up stock
  • squaring up stock
  • layout
  • forming and smoothing curves
  • wood carving
  • bending solid wood
  • wood lamination
  • drilling and boring holes
	• Lecture
	• Question / Answer
	• Project Construction
	• Demonstration
	• Discussion
	• Individually Guided Instruction
	• Drawing
	• Note Taking
	• Discovery – Problem Solving
	• Cooperative Learning
	• Guest Speakers
	• Field Trips
		• Exams: Teacher Made – Standardized
		• Project Rating
		• Teacher Observation
		• Class Participation
		• Rating of Drawings
		• Student Activity Self Evaluation
		
		Instructional Materials
		
		• Text: Wood Technology & Processes, Glencoe, ©1994
		• Student Activity Manual: Wood Technology & Processes, Glencoe, ©1994
		• Manufacturing Systems, Goodheart-Willcox, ©2000
		• Student Activity Manual: Manufacturing Systems, Goodheart-willcox, ©2000
		• Tools, Machinery and Equipment
		• Visual Demonstrations
		• Video Tapes
		• Working Drawings
		• Resource People
		• Transparencies
		• CD-ROM

Wood Technology II, Grade Level: 11th – 12th

Course Contents By Units: 90 Days (85 min. period)	Learning Strategies including Enrichments/Adaptations	Assessment Measures/Expected Levels of Achievement

• Machine Woodworking
  • safety and operation
  • adjustments and setups
  • principles of operation
  • maintaining tools and equipment
• Joinery and Assembly
  • woodworking joints
  • simple casework
  • assembling techniques
  • nails
  • screws
  • glue
• Finishing
  • scraping
  • sanding
  • preparation for finishing
  • materials
  • application methods
  • safety
Introduction to Management (5 days)
• Organization
  • elements
  • forms of ownership
  • management levels
• Responsibilities
		Instructional Materials

Wood Technology II, Grade Level: 11th – 12th

Course Contents By Units: 90 Days (85 min. period)	Learning Strategies including Enrichments/Adaptations	Assessment Measures/Expected Levels of Achievement

Manufacturing Enterprise (35 days)
• Organizing and Financing
• Developing a Product
  • determining product needs
  • designing the product
  • testing the product
• Developing a Production System
  • selecting and sequencing operations
  • flow process chart
  • operation process chart
  • plant layout
  • tooling
  • quality assurance
• Obtaining Resources
  • work force
  • material resources
• Marketing
  • product advertisement
  • product packaging
  • selling the product
  • distributing the product
Automating Manufacturing Systems (5 days)
• Automation in manufacturing
• Computers and product design
• Computers and manufacturing
Manufacturing, Technology and You (5 days)
• Future trends
• Career potentials
		Instructional Materials