

## II. COURSE OUTLINE

#5881

A. Course Title: Carpentry

1. Description: an introductory course in carpentry which will cover blue print reading, carpentry, hand and power tools and basic house and small structure construction.
2. Purpose: The course is designed to instruct students in the basic construction techniques involved in the building of small structures and residential housing. Also included will be home maintenance related to carpentry and the reading of construction drawings.
3. Length of course: One semester
4. Grade level: 9 - 12
5. Prerequisites: None
6. Credit: Five elective credit toward graduation; may be repeated for credit.

B. Course Objectives:

1. The student will be able to identify and use the tools and equipment associated with carpentry.
2. The student will demonstrate a degree of proficiency in reading and interpreting construction drawings.
3. The student will construct a scale model of the framing of a residential house per code. The house will include the foundation, flooring, wall framing and roof framing.
4. The students will, as a group, participate in the construction of a small structure. (Examples: tool shed, playhouse, patio overhead, or portable classroom.
5. The student shall have an appreciation for the trade, and an awareness of employment opportunities.

Evaluation: Instructor made written and oral tests, instructor observation, instructor evaluation of student projects or group performance.

C. Instructional Strategies: N/AD. Textbooks:

Wagner, Willis H.. Modern Carpentry. New York: Goodheart-Willcox Co., Inc.

Supplementary text:

Wallach, Paul I. and Donald E. Hepler. Reading Construction Drawings. McGraw Hill Book Company.

Durbahn & Sundberg, Fundamentals of Carpentry Practical Construction. American Technical Society.

828-775

1177

F. Additional Material and Audio-Visual Aids: None

F. Recommendations: None

G. Modifications: None except minor rewording.

H. Times of Instruction: N/A

I. Repetition: N/A

J. Date of Board Adoption: AUG 4 1981

IV. List of Skills Taught and Correlation of Skills with District Goals and Objectives.

- Directions:
1. List the skills that are covered in the course.
  2. Check either the "core" or "optional" box for each skill. ("Core" indicates that the skill is part of the core curriculum and must be covered. "Optional" indicates that the skill is to be covered as time and student ability permits.) Use additional pages as needed.
  3. Check the "Dist. G & O" column if the skill is in line with the district goals and objectives. (The district goals and objectives are in Volume IV of the Secondary Curriculum Guide which is located at each secondary school.)

SPECIFIC SKILLS	CORE	OPTIONAL	DIST. G & O
Identify types of lumber and plywood and their grades use in construction.	*		*
Make measurements.	*		*
Compute board feet and cost.	*		*
Write bill of materials for ordering lumber.	*		*
Identify and use safety handtools used in carpentry.	*		*
Identify and use safety, power machinery used in carpentry.	*		*
Read construction drawings.	*		*
Identify the parts of a form.	*		*
Identify footing styles.	*		*
Identify parts of a foundation.	*		*
Use a builder's level to shoot a grade.	*		*
Construct forms.	*		*
Estimate and pour concrete.		*	
Identify wall and partition framing members.	*		*
Compute length framing members.	*		
Estimate material for wall and partition framing.	*		
Lay out walk and partitions.	*		
Cut framing members to size.	*		
Install shear wall or bracing & sheathing.	*		
Lay out and install ceiling joints.	*		
Identify different types of windows.	*		

List of Skills Taught and Correlation of Skills with District Goals and Objectives. - Continued

SPECIFIC SKILLS	CORE	OPTIONAL	DIST. G. & O
Install windows.		*	
Install outside door jambs and hang exterior doors.		*	
Identify framed roof members.	*		
Identify different roof styles.	*		
Compute rafter length and pitch.		*	
Estimate material needed to frame a roof.		*	
Lay out, cut and erect rafters.	*		
Apply roof sheathing.	*		
Identify the components of a roof.	*		
Identify different roof styles.	*		
Identify different roofing materials.	*		
Calculate roofing material needed.		*	
Install roofing material.	*		
Install drywall.		*	
Tape and finish coat drywall.		*	
Identify the parts of a staircase.	*		*
Calculate number of risers and tread in a given staircase.	*		*
Lay out, cut and assemble a stair.		*	
Install a door frame.		*	
Hang door and install lock.		*	
Trim a window.		*	
Case a door frame.		*	
Identify different types of doors and windows.	*		*
Identify different types of moldings.	*		*
Identify parts of an interior door unit.	*		*
Cut a coped joint in molding.	*		*
Cut a miter joint in molding.	*		*
Identify different styles of paneling.	*		*

CARPENTRY

IV. List of Skills Taught and Correlation of Skills with District Goals and Objectives.

- Directions:
1. List the skills that are covered in the course.
  2. Check either the "core" or "optional" box for each skill. ("Core" indicates that the skill is part of the core curriculum and must be covered. "Optional" indicates that the skill is to be covered as time and student ability permits.) Use additional pages as needed.
  3. Check the "Dist. G & O" column if the skill is in line with the district goals and objectives. (The district goals and objectives are in Volume IV of the Secondary Curriculum Guide which is located at each secondary school.)

SPECIFIC SKILLS	CORE	OPTIONAL	DIST. G & O
Install paneling.		*	
Identify different types of wood flooring.	*		
Install wood flooring.		*	

V. Suggested Activities to make the Course More Meaningful to Students

Suggest at least three activities which will relate some of the skills included in this course (Section IV, page 17) to skills needed (e.g., career and personal) outside of school. (Show in meaningful ways why these skills are important for students to learn.)

Skill(s) Or Areas Included In The Course	Suggested Activities
<u>Safe use of woodworking power machinery</u>	1. Students will mill material for different parts of a small structure to be built collectively by the class.
<u>Estimate the amount needed and the cost of building material.</u>	2. Student will accurately list the type and size of building materials needed for a small structure and compute the cost.
<u>Install interior wall paneling.</u>	3. Students will install interior wall paneling in a small structure. Student will figure out amount of paneling needed and cost for a room in his/her home.
	4.