DEPARTMENT:INDUSTRIAL TECHNOLOGYCOURSE TITLE:WOODS ICOURSE NUMBER:146COURSE DESCRIPTION:This course will teach the basics of woodworking.

I. GENERAL COMPETENCIES - The learner will be able to:

1. Comprehend information received and apply information in a variety of everyday situations.

2. Apply appropriate safety techniques when using equipment in the wood lab.

- II. PERFORMANCE OBJECTIVES:
 - Items listed below include the objectives and their indicators for this course:
 - A. Use working Drawings
 - 1. The learner will be able to demonstrate the following.
 - (a) Describe the different types of drawings.
 - (b) List the parts of a working drawing.
 - (c) Identify the importance of specifications.
 - (d) Read a shop drawing.
 - B. Wood Characteristics
 - 1. The learner will be able to demonstrate the following.
 - (a) Describe the common growth pattern of all trees.
 - (b) Explain the difference between hardwood and softwood cell structure.
 - (c) Determine the moisture content and specific gravity of a particular wood.
 - (d) Describe the properties of wood.
 - C. Lumber and Millwork
 - 1. The learner will be able to demonstrate the following.
 - (a) Explain the sequence of steps used to convert trees to usable lumber.
 - (b) Describe the three methods of sawing.
 - (c) Explain hardwood and softwood grading practices.
 - (d) Order lumber and millwork.
 - (e) Identify various lumber defects.
 - (f) Explain the two ways lumber is seasoned.
 - D. Ordering Materials and Supplies
 - 1. The learner will be able to demonstrate the following.
 - (a) Prepare a material order list based on the working drawings and bill of materials.
 - (b) Identify and order supplies required to build a product.
 - E. Measuring and Laying Out Materials
 - 1. The learner will be able to demonstrate the following.
 - (a) Select marking, measuring and layout tools.
 - (b) Lay out lines and geometric shapes.
 - (c) Maintain measurement and layout tools.
 - F. Sawing with Stationary Power Machines
 - 1. The learner will be able to demonstrate the following.
 - (a) Select stationary power saws for cutting straight or curved kerfs or cuts.
 - (b) Discuss the proper operation of power saws.
 - (c) Choose the most appropriate saw blade for a given operation.
 - (d) Maintain stationary power equipment.
 - G. Drilling and Boring
 - 1. The learner will be able to demonstrate the following.
 - (a) Select drills and bits based on the hole to be made.
 - (b) Operate hand, portable and stationary drilling equipment.
 - (c) Follow procedures for drilling through and blind holes, holes at an angle and flat or cylindrical work pieces.
 - (d) Maintain hand and power drilling equipment.

- H. Shaping
 - 1. The learner will be able to demonstrate the following.
 - (a) Choose the proper router bit.
 - (b) Set up and operate the router.
 - (c) Select and use hand tools for shaping contours and decorative surfaces.

I. Joint Making

- 1. The learner will be able to demonstrate the following.
 - (a) Select appropriate joints based on the product and material.
 - (b) Select hand tools, power equipment and special jigs or accessories for joinery.
 - (c) Create and assemble non-positioned, positioned and reinforced joints.
- J. Abrasives
 - 1. The learner will be able to demonstrate the following.
 - (a) Select abrasive materials for smoothing surfaces.
 - (b) Identify the natural and synthetic abrasive materials.
 - (c) Choose abrasive grain type and grit size.
 - (d) Recognize the adhesives and backings for various coated abrasives.
- K. Adhesives
 - 1. The learner will be able to demonstrate the following.
 - (a) Select the proper adhesive for assembling your product.
 - (b) Identify adhesive characteristics that affect the assembly time and strength of your product.
 - (c) Describe the proper application of adhesives.
- L. Gluing and Clamping
 - 1. The learner will be able to demonstrate the following.
 - (a) Identify types of clamping devices.
 - (b) Select clamps to assemble various joints.
 - (c) Protect work pieces from clamp damage.
 - (d) Explain the procedure for assembling your product with clamps.
- Resources used: Textbooks, handouts and videos.

Grading:	Class Participation	95-100% = A
	Homework	90-94% = A-
	Tests	87-89% = B+
	Projects/Activities	84-86% = B
		80-83% = B-
		77-79% = C+
		74-76% = C
		70-73% = C-
		67-69% = D+
		64-66% = D
		60-63% = D-
		0-59% = F

Class Rules:

- 1. Arrive on time.
- 2. Respect other people and their property.
- 3. Keep your work area clean.
- 4. Wear safety glasses when working in the wood lab.