

College of Micronesia – FSM
P.O. Box 159
Kolonia, Pohnpei

Course Outline Cover Page

Introduction to Carpentry

Course Title

VCT 153

Department and Number

Course Description: This course is designed to introduce the student to the basic use of hand and power tools along with the techniques and methods applicable to the carpentry trade. It is designed to provide an orientation to the career field of carpentry.

Prepared by: Xavier Yarofmal.

State: Pohnpei Campus

	Hours per Week	No. Of Weeks	Total Hours	Semester Credits
Lecture	3/8	16/8	48	3
Laboratory				
Total Semester Credits:				3

Purpose of Course

Degree Requirement	_____
Degree Elective	_____
Advanced Certificate	_____
Certificate	_____XX_____
Remedial	_____
Other (Workshop)	_____
Apprenticeship	_____XX_____

Prerequisite Course(s): None

Signature, Chairman, Curriculum Committee

Date Approved by Committee

Signature, President, COM-FSM

Date Approved by the President

General Objective:

This course is to instruct the student in the use, care, safe operation and maintenance of hand and power tools as well as the use, care and safe handling of carpentry supplies and materials.

Learning Outcomes:

Upon successful completion of this course the student will be able to:

1. Identify and describe the field of carpentry in the industry.
2. Identify unsafe situations in the shop.
3. Make linear measurements to an accuracy of 1/16 of an inch and/or 1mm and estimate lumber required for a given project.
4. Identify and demonstrate proficiency with hand tools common to carpentry.
5. Identify and demonstrate proficiency with power tools common to carpentry.
6. Identify lumber by grade and common usage.
7. Demonstrate the ability to work from drawings and blueprints.

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEALTH AND SAFETY ISSUES IN ALL SITUATIONS AND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES.

Outline of Content:

This course contains:

1. Introduction – Career overview
 - Developing a career plan
 - Work Ethic - development
2. Safety
 - Identification of unsafe conditions in the shop
 - Identification of the three classes of fire extinguishers
 - First aid – self aid
3. Use of Mathematical Skills to Measure and Compute needs
 - Take linear measurement of a “widget” and a sawhorse
 - Estimate wood needed for widget
 - Estimate lumber needed to build the sawhorse
 - Compute board feet
 - Estimate the local market cost of building the sawhorse
4. Hand Tools
 - Identify hand tools common to the carpentry trade
 - Select and use the proper hand tools
 - Work from a drawing or blueprint

- Build selected project using hand tools
5. Power Tools and Machines
 - Identify the common power tools used in the carpentry trade
 - Identify and use portable power tools
 - Identify and use stationary power machines
 - Maintain power tools and machines
 6. Lumber
 - Identify lumber grading
 - Identify standard fir plywood grades
 - Identify two methods of drying lumber
 - Identify and describe methodology of pressure treated lumber
 - Identify common defects in wood
 7. Blueprint Reading
 - Define terms associated with blueprint reading
 - Identify the alphabet of lines and drawing symbols
 - Identify the different scales ration on an architect's scale
 - Identify blueprint specifications

Learning Outcome 1: Identify and describe the field of carpentry in the industry

- Assessment Criteria:
1. Identify and describe a career plan.
 2. Describe the work ethic associated with a successful career in the field.

Assessment Methods: Multiple Choice Questions
Short answer Questions
Oral Questions
Observations

Learning Outcome 2: Identify unsafe situations in the shop

- Assessment Criteria:
1. List workshop safety rules.
 2. Perform safely in the workshop at all times.

Assessment Methods: Multiple Choice Questions
Short answer Questions
Oral questions

Observations

Learning Outcome 3: **Make linear measurements to an accuracy of 1/16 of an inch and/or 1mm and estimate lumber required for a given project**

Assessment Criteria:

1. Define linear measurement.
2. Mark a given measurement on a piece of lumber.
3. Cut a given measurement to an accuracy of 1/16 of an inch.
4. Estimate lumber needed to build a project.
5. Find board feet.
6. Estimate the cost of a given project.

Assessment Methods:

Multiple Choice Questions
Short Answer Questions
Observations
Test

Learning Outcome 4: **Identify and demonstrate proficiency with hand tools common to carpentry**

Assessment Criteria:

1. List the uses of all hand tools learned.
2. Pick out the right hand tool for the job to be done.
3. Use hand tools properly.
4. Maintain hand tools properly.

Assessment Methods:

Multiple Choice Questions
Short Answer Questions
Observations
Test

Learning Outcome 5: **Identify and demonstrate proficiency with power tools common to carpentry**

Assessment Criteria:

1. List the use of each power tools that you have learned.
2. Pick out the right power tool for the job to be done.
3. Use each power tool properly.
4. Maintain all power tools properly.

Assessment Methods:

Multiple Choice Questions
Short Answer Questions

Observations
Test

Learning Outcome 6: Identify lumber by grade and common usage

Assessment Criteria: 1. Arrange each lumber by their grades.
2. Write down the specific use of each lumber.
3. List the proper ways of handling lumbers.

Assessment Methods: Multiple Choice Questions
Short Answer Questions
Test

Learning Outcome 7: Demonstrate the ability to work from drawings and blueprints

Assessment Criteria: 1. Identify and interpret a drawing/blueprint.
2. Describe the important content/specifications of a drawing/blueprint.
3. Use a drawing/blueprint to build/fabricate based on its specifications.

Assessment Methods: Multiple Choice Questions
Short Answer Questions
Practical exercise
Student projects

Required Course Materials:

1. Instructor:

- a. Wood shop with selected hand and power tools
- b. TV/VCR, video tapes as available
- c. Text, Instructor's Resource Guide, Workbook- (refer to Instructor)
- d. Overhead projector, transparencies
- e. Material duplication equipment (Xerox or equivalent)
- f. Tools, lumber and wood working supplies (adhesive, sandpaper, fasteners, and preservatives).

2. Student:

- a. Workbook, Instructor provided packets
- b. Three ring binder (to contain handout material)
- c. College ruled spiral notebook
- d. Architectural scale
- e. Drafting pencils (HB, 2H), Erasers
- f. Triangles, 45/45/90 and 30/60/90

g. 8 ½ x11, ¼ inch ruled grid paper

Reference Materials:

Carpentry and Building Construction.

John L. Feirer, Gilbert R. Hutchings, Mark D. Feirer, 1997

Student workbook, Carpentry and Building Construction

Feirer, Hutchings, Feirer, 1997

Method of Instruction:

1. Demonstration by Instructor
2. Lecture
3. Group work/Team work on projects
4. Discussion
5. Video presentation
6. Practical exercise

Evaluation:

Final Grade for this course will be based on meeting the course requirements at the following percentage rates:

90% - 100%	A – Superior
80% - 89%	B – Above Average
70% - 79%	C – Average
60% - 69%	D – Below Average
0 % - 59%	F – Failure

Competency in practical exercise is determined to be completed project(s), within the 16 week course limit, within +/- ¼ inch accuracy in all major dimensions.

Attendance:

The COM-FSM attendance policy will apply.

Fees: Upon registration into this course, the student will be charged a fee to cover the following program requirements:

1. Personal Tool Kit
2. Class project materials
3. Handout materials