

College of Micronesia - FSM
P.O. Box 159
Kolonias, Pohnpei FM 96941

Course Outline Cover Page

Rough Framing and Exterior Finishing

Course Code: VCT 173

Course Description: This Course concentrates on basic structure construction. It is designed to provide carpentry students with the skills and knowledge necessary to frame floors, walls, wall panels, roofs and ceilings as well as the application of exterior finishing materials.

Course Prepared by: Alan Hopkins

State: Pohnpei

	Hours per Week	No. Of Weeks	Total Hours	Semester Credits
Lecture/Workshop	<u>3</u>	x <u>16</u>	= <u>48</u>	= <u>3</u>

Purpose of Course:

- Degree Requirement
- Degree Elective
- CertificateXX
- Remedial
- Other (workshop)

Prerequisite Course(s): VCT 153 Introduction to Carpentry

Signature, Chairperson, Curriculum Committee

Date Approved by Committee

Signature, President, COM-FSM

Date Approved by President

Rough Framing and Exterior Finishing.

I. Course Objectives

A. General. The general objective of this course is to provide the carpentry student with the knowledge and skills necessary to frame a structure's walls, floor, ceiling and roof while working within the building codes and specifications, as well as the application of various exterior-finishing materials.

B. Specific Objectives: Upon successful completion of this course the student will:

1. Be able to lay out and frame a floor system from a blueprint or sketch
2. Be able to lay out and frame a structures wall and ceiling system from a blueprint or sketch
3. Be able to lay out a roof system from blueprints or a sketch
4. Be able to lay out and construct roof trusses from a set of plans
5. Be able to estimate materials needed for floors, walls, ceilings and roofs from a set of blueprints or sketch
6. Be able to list terms used in the construction of building systems
7. Be able to identify, select and use the proper tools and building aids required for rough construction of a building or structure
8. Be able to complete all off the above to specifications and within the guide lines of the building codes.

II. Course Content

1. Introduction 2 hrs
 - a. Overview of terms and graphics used in rough construction
 - b. Use of the carpenter's square - determining angles
 - c. Material estimation and costing process
 - d. Knowledge of building codes and specifications relating to domestic construction.

2. Floor framing 12 hrs
 - a. Identification of the parts of the floor framing system
 - b. Layout of floor system according to a blueprint
 - c. Identification and use of non-conventional floor systems
 - d. Layout and installation of sub flooring
 - e. Estimation of floor framing materials and cost from plan or blueprint
 - f. Tools and equipment required for floor systems
 - g. Practical exercise

3. Walls and Ceiling Framing 12 hrs
 - a. Identification of parts and subassemblies of wall and ceiling frame systems
 - b. Lay out a standard wall section from a plan or blueprint
 - c. Lay out a standard ceiling system from a plan or blueprint
 - d. Exterior wall sheathing, types and installation
 - e. Estimation of materials and cost from a plan or blueprint

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3. Wall and Ceiling Framing (cont'd)
 - f. Selection and use of the proper tools and aids
 - g. Practical Exercise

4. Roof Framing 16 hrs
 - a. Identification of common roof types
 - b. Layout trusses from a plan using a carpenter's square
 - c. Truss placement and roof sheathing
 - d. Roofing materials
 - e. Estimating required roof material and cost from a set of plans or blueprint
 - f. Selection of proper tools and equipment for roof systems
 - g. Practical exercise

5. Exterior Finishing 6 hrs
 - a. Installation of windows and exterior doors
 - b. Exterior trim
 - c. Material and cost estimation
 - d. Practical exercise

III. Required Course Material:

1. Instructor:
 - a. Wood shop with selected hand and power tools
 - b. Text, Instructor's Resource Guide, Workbook
 - c. Overhead Projector
 - d. Transparencies
 - e. TV/VCR, video tapes as available
 - f. Material duplication equipment (Xerox or equivalent)
 - g. Tools lumber and woodworking supplies (adhesives, sandpaper, fasteners, preservatives). See attached list.

2. Student:
 - a. Workbook, Instructor provided packets
 - b. Student tool set
 - c. Three ring binder (to contain handout material)
 - d. College ruled spiral notebook
 - e. Architectural scale
 - f. Pencils (HB, 2H)
 - f. Erasers
 - g. Triangles, 45/45/90 and 30/60/90
 - h. 8 1/2 x 11, 1/4 inch ruled grid paper

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IV. Reference Material:

Carpentry and Building Construction,
John L. Feirer, Gilbert R. Hutchings, Mark D. Feirer, 1997

Student Workbook, Carpentry and Building Construction
Feirer, Hutchings, Feirer, 1997

V. Instructional Costs:

Student tool set,	\$350.00
Classroom supplies	30.00
Text	41.99
Instructor's guide	50.96
Student Workbook	7.99

VI. Methods of instruction:

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

VII. Evaluation:

Final Grades for this course will be assessed 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 +/- 1/4 inch accuracy in all major dimensions.

VIII. Attendance. The COM-FSM attendance policy will apply.

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III. Required Course Materials

Supplies:

- Assorted nails
- Corrugated fasteners
- Screws, assorted
- Bolts, nuts, washers, assorted
- Corner irons, assorted sizes
- Hinges, assorted sizes
- Hasps, hook-and-eye fasteners, assorted
- Wood filler

Materials:

- Dimensional lumber, assorted
- Plywood, assorted
- Particle board
- Exterior paneling
- Gypsum wall board
- Roofing material

Adhesives:

- Resin glue, waterproof
- Glue, cartridge (Liquid nails or equivalent)

Hand tools:

Hammer, curved claw	Screwdriver, flat tip
Hammer, straight claw	Screwdriver, cross tip
Hammer, tack	File set, wood rasp
Mallet, wood	Measuring tools:
Saw, 10 pt	Steel tape, 25 and 100 ft
Saw, 8 pt	Steel ruler, 18 in
Saw Coping, w/blades	Steel tape, 20 meter
Saw, miter	Carpenter's square
Saw, dovetail	Tri-square
Hacksaw	Combination square
Wood chisels	Level, spirit
Cold chisel	
Drill brace	Power Tools:
Drill bit set, (auger)	Table saw
Drill bit set, (twist)	Circular saw
Plane, (block)	Band saw
Plane, (smooth)	Joiner
Plane, jack	Belt sander
Plane, rabbet	Electric drill and bits
Plane, router	Radial arm saw