

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

Course Outline Cover Page

Blue Print Sketching and Interpretation.

Course Title

VAE 103

Department and Number

Course Description: This course is designed to introduce the student to the basic principals of blueprint drawing and interpretation. The intent of the course is to teach him/her to read specifications and marginal information in production blueprints while enhancing his/her ability to define size, shape, and dimensional information in his/her own construction drawings.

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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 several different types of construction drawings. These will range from creating simple dimensional sketches in a variety of perspectives through a general understanding of architectural blueprints and the information contained thereon.

Learning Outcomes:

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

1. Use common drafting tools to produce coherent construction drawings.
2. Define, interpret and use scale measurements.
3. Describe the types of drawings usually included in a set of plans and list the information found on each type.
4. Identify selected architectural symbols commonly used to represent materials on plans.
5. Identify selected electrical and plumbing symbols commonly used on plans.
6. Recognize and identify basic blueprint terms and components.

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.
 - Use of common drafting tools.
 - Measuring, measuring to scale.
 - Alphabet
2. Shape descriptions- the use of drawings to depict shapes
 - Orthographic projection
 - Sketching (construction)
 - Inclined surfaces
 - Hidden surfaces
 - Curved surfaces
 - Auxiliary views
 - Drawing practice
3. Pictorial drawings
 - Isometric drawings and sketches
 - Oblique drawings and sketches
 - Other pictorial methods
 - Drawing practice

4. Structural Drawings
 - Classifications
 - Drawing practice
5. Electrical / Electronic Drawings
 - Types
 - Common electrical symbols in construction drawings
 - Drawing practice
6. Plumbing / Piping Drawings
 - Planning placement of pipes and fixtures
 - Common plumbing symbols in construction drawings
 - Drawing practice
7. Map Drawing
 - Classifications of maps
 - Common symbols and colors
8. Architectural Drawing
 - Organization of drawings and schedules
 - Types of drawings
 - Drawing practice

Learning Outcome 1: **Use common drafting tools to produce coherent construction drawings.**

Assessment Criteria 1. Describe the purpose of each drafting tool.
 2. List commonly used drafting tools.
 3. Draw a given shape.

Assessment Methods Multiple Choice Questions
 Short answer Questions
 Oral Questions
 Drawing

Learning Outcome 2: **Define, interpret and use scale measurements.**

Assessment Criteria: 1. Define scale.
 2. List types of scales used.
 3. Draw lines with specified scales to use.

Assessment Methods: Multiple Choice Questions
 Short Answer Questions
 Quiz

Learning Outcome 3: **Describe the types of drawings usually included in a set of plans and list the information found on each type.**

Assessment Criteria: 1. List types of drawings.
 2. Describe each drawing.
 3. Identify the various information found on various drawing.
 4. Draw each drawing.

Assessment Methods: Multiple Choice Questions
 Short Answer Questions

Learning Outcome 4: **Identify selected architectural symbols commonly used to represent materials on plans.**

Assessment Criteria: 1. List all symbols learned.
 2. Draw the symbol of each material.
 3. Describe each symbol and where it is used on each drawing.

Assessment Methods: Multiple Choice Questions
 Short Answer Questions
 Test

Learning Outcome 5: **Identify selected electrical and plumbing symbols commonly used on plans.**

Assessment Criteria: 1. Identify and draw electrical symbols.
 2. Identify and draw plumbing symbols.
 3. Draw a simple floor plan using the symbols learned.

Assessment Methods: Multiple Choice Questions
 Short Answer Questions
 Quiz

Learning Outcome 6: **Recognize and identify basic blueprint terms and components.**

Assessment Criteria: 1. List the two purposes of Title Block.
 2. Define Border.
 3. Describe the Drawing area and Revision block.

4. Explain the term Legend.

Assessment Methods: Multiple Choice Questions
Short Answer Questions
Test

Required Course Materials:

1. Instructor:

- a. Classroom with drawing boards/drafting tables
- b. TV/VCR, video tapes as available
- c. Text, Teacher's Resource Binder, Workbook- (refer to Instructor)
- d. Overhead projector, transparencies
- e. Material duplication equipment (Xerox or equivalent)

2. Student:

- a. Workbook, Instructor provided packets
- b. Three ring binder
- 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
- h. T- square

Reference Materials:

Wheels of Learning-Carpentry Level Two, Trainee Guide, NCCER 2001
Wheels of Learning-Carpentry Level Two, Instructors Guide, NCCER 2001
Wheels of Learning-Core Curriculum, Trainee Guide, NCCER 2001

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

Attendance: The COM-FSM attendance policy will apply.

