

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

Course Outline Cover Page

Electrical/Electronic Drawing & Sketching

Course Title

VEM102

Department and Number

Course Description: This course is designed to provide the students with basic skills and knowledge to read and interpret electrical blueprints. Students will also learn the basic principles of sketching and scale drawing using a variety of drawing equipment.

Prepared by: Bernardo Dimaliwat

State: Pohnpei Campus

	Hours per Week	No Of Weeks	Total Hours	Semester Credits
Lecture	1.5/3	16/8	24	1.5
Laboratory				
		Total Semester Credits:		1.5

Purpose of Course

Degree Requirement	_____
Degree Elective	_____
Advanced Certificate	_____
Certificate	XX
Remedial	_____
Other (Workshop)	_____

Prerequisite Course(s): Nil

Signature, Chairman, Curriculum Committee

Date Approved by Committee

Signature, President, COM-FSM

Date Approved by the President

General Objective:

The students will be able to learn the skills and knowledge required to read basic plans used in the construction and electrical industry and interpret documentation;

Learning Outcomes:

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

1. Recognize and describe a variety of construction drawings , plans and supporting documents
2. Identify symbols and their functions, explain abbreviations and extract basic information from plans
3. Demonstrate the use of drawing equipment and produce drawings according to instructions

Outline of Content:

This course contains:

1. Introduction to Blueprint reading
 - Site Plan
 - Floor Plans
 - Elevations
 - Sections
 - Electrical Drawings
2. Blueprint Layout
 - Title Block
 - Approval Block
 - Revision Block
3. Drafting Lines
 - Electrical Drafting Lines
4. Common Electrical/Electronic Symbols, Abbreviations, and Keynotes
5. Scale Drawings

Learning Outcomes:

On completion of this course the learner will be able to:

Learning Outcome 1:

Recognize and describe a variety of construction drawings, plans and supporting documents

Assessment Criteria

- a. Identify different types of construction drawings including:
 - Site Plan
 - Floor Plans
 - Elevations

- Sections
 - Electrical/Electronic Drawings
- b. Explain the basic terminology applicable to the use of the plans and drawings
 - c. Identify features of plans and drawings

Assessment Method

Oral Questioning
 Written tests
 Individual and group written assignments
 Short answer questions
 Practical Exercises/Test

Learning Outcome 2 : Identify symbols and their functions, explain abbreviations and extract basic information from plans

Assessment Criteria

- a. Describe construction and electrical/electronic symbols and their functions
- b. Explain drawing abbreviations and terms commonly used in the electrical/electronics industry
- c. Describe the type of information included in an electrical/electronics drawing
- d. Extract basic information from a given electrical/electronics specification

Assessment Method

Oral Questioning
 Written tests
 Individual and group written assignments
 Short answer questions
 Practical Exercises/Test

Learning Outcome 3 : Demonstrate the use of drawing equipment and produce drawings according to instructions

Assessment Criteria

- a. Explain “scale” and why it is used in construction and electrical drawings
- b. Apply scale to dimensional lines correctly
- c. Demonstrate the correct use of drawing instruments and the selection of suitable pencils
- d. Produce drawings as specified

Assessment Method

Oral Questioning
 Written tests
 Individual and group written assignments
 Short answer questions
 Completed drawings

Required Course Materials:**1. Instructor:**

- a. Drawing classroom with sufficient workstations
- b. Drawing instruments and pencils (2H)
- c. Range of construction/electrical plans and specifications
- d. Text, Teacher's Resource Guide, workbook
- e. Overhead projector, transparencies

2. Student:

- a. Text(s), handouts provided by instructor
- b. Drawing instruments and pencils (2H)
- c. Ring binder
- d. College ruled note sheet, pencil or pen
- e. Scientific calculator

Reference Materials:

- Electrical Level One NCCER, 2002 NEC Revision
Prentice Hall, Inc Upper Saddle River, New Jersey
- Core Curriculum, NCCER, 2000 Revision
Prentice Hall, Inc Upper Saddle River, New Jersey

Method of Instruction:

- a. Theory sessions
- b. Demonstrations of accepted drawing practice
- c. Practical drawing exercises

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 vocational educational attendance policy will apply.

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.