## College of Micronesia – FSM Course Modification Request

VEM212 National Electrical Code

Technology and Trade
Department

Course Number and Title

Same as above

Recommended Course Number and Title

Department

New Course Objectives:

No change

Same as above

New Course Description:

No change

New Course Number: VEM212

Justification for Revising the Course:

The course outline is revised to convert it from content base to SLO base.

Signed by Bernardo Dimaliwat

10-11-04 Date

1/28/2005

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

Course Outline Cover Page

NATIONAL ELECTRICAL CODE

NEC 212

Course Title

Department and Number

<u>Course Description:</u> This course is designed to introduce students to the National Electrical Code. The students will develop the skills in using the code to find specific articles related to the correct methods of installing wiring and equipment. The course aims at developing work practices, that comply with the National Electrical Code.

Prepared by: Grilly Jack State: Pohnpei Campus

Lecture Laboratory .	Hours per Week 3/8	No. Of	16/8	Total Hours 48 mester Credits:	Semester Credits 3
			Total Se	mester Credits.	3
Purpose of Course	Degree Requirement Degree Elective			XX	_
	Advanced Ce Certificate	rtificate			
	Apprentic Remedial	ee		XX	  
	Other (Works	shop)			
<b>Prerequisite Course</b>	(s):	none			
See Management of Control of the Con	GM Am	· · · · · · · · · · · · · · · · · · ·			
Signatu	re, Chairman, Curriculu	m Comm	ittee		
			Ι	Oate Approved b	y Committee

General Objective: The National Electrical code is the standard that sets the minimum Requirement for all electrical wiring and equipment installation. Students need to develop skills in applying the National Electrical Code. Prior to working in the electrical industry the student will develop basic skills and awareness of the requirements of the National Electrical Code. Identify where and when to consult the electrical code. A skilled Apprentice or journeyman needs to be able to ascertain the requirements from the code, interpret its meaning, and then comply with the intent of the code. This is to ensure that when undertaking wiring work the highest possible standards of safety can be assured for fellow workers and the community.

#### **Learning Outcomes:**

Signature, President, COM-FSM

At the completion of this course, and to the satisfaction of the Instructor, the students will be able to.

Date Approved by the President

- 1. Describe the purpose of the National Electrical Code.
- 2. Describe the structure of the National Electrical Code Book
- 3. Define NEC definitions.
- 4. Describe the organization of the NEC Book.

- 5. Demonstrate navigating through the NEC book.
- 6. Identify the roles of other Organizations.

#### **Outline of Content**

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEAL THAND SAFETY ISSUES INALL SITUATIONSAND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES.

- 2. Structure
- Types of Rules
- Introduction
- NEC Body
- NEC References
- 3.NEC Definitions.
- Article 100
- Labeled
- Listed
- 4. Chapter Organization.
- Wiring and Protection
- Branch Circuits
- Multi-wire Circuits
- 5. Navigation.
- Familiarization
- Locate Chapter
- Locate s specific applications
- 6.Other Organizations.
- Testing Laboratories
- Manufacturers' Associations

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

**Learning Outcome 1:** Describe the purpose of the National Electrical Code.

**Assessment Criteria:** a. Describe the History of the Code.

b. Describe the Groups and Organizations involved.

All work practices must ensure that safe practices are adopted.

**Conditions** Working in groups given:

- Resources
- Verbal presentation to the group of learners

#### **Assessment Method**

## Assessment may involve any of the following methods

- Oral questioning
- Written tests
- Individual written assignments
- Active participation in group activity

## **Learning Outcome 2:**

#### Describe the structure of the National Electrical Code Book.

#### **Assessment Criteria:**

- a. Describe types of Rules.
- b. Introduce the NEC Book.
- c. Describe the body of the codebook.
- e. Describe the references.

## All work practices must ensure that safe practices are adopted.

#### **Conditions**

Working in groups given:

- Resources
- Verbal presentation to the group of learners

#### **Assessment Method**

- Assessment may involve any of the following methods
- Oral questioning
- Written tests
- Individual written assignments
- Active participation in group activity

## **Learning Outcome 3: Assessment Criteria:**

Define NEC Definitions

- a. Describe article 100 in the NEC Book.
- b. Describe Labeled items in the NEC Book.
- c. Describe Listed items in the NEC Book.

# All work practices must ensure that safe practices are adopted.

## **Conditions**

#### Working in groups given:

- Resources
- Verbal presentation to the group of learners

#### **Assessment Method**

Assessment may involve any of the following methods

- Oral questioning
- Written tests
- Individual written assignments
- Active participation in group activity

## **Learning Outcome 4**

- Describe the organization of the NEC Book.

#### **Assessment Criteria**

- a. describe the wiring and protection sector of the code.
- b. Describe the Branch circuit sector of the codebook.
- c. Describe the multi-wire circuit in the codebook.

## All work practices must ensure that safe practices are adopted.

#### **Conditions**

## Working in groups given:

- Resources
- Verbal presentation to the group of learners

#### **Assessment Method**

## Assessment may involve any of the following methods

- Oral questioning
- Written tests
- Computer managed testing
- Individual written assignments
- Active participation in group activity

#### **Learning Outcome 5**

Demonstrate navigating through the NEC book,

#### **Assessment Criteria:**

- a. Become familiarized with various sectors in the Codebook
- b. Able to locate general and various topics and applications in the codebook
- c. Able to locate specific items and applications in the codebook

All work practices must ensure that safe practices are adopted.

#### **Conditions**

Working in groups given:

- Resources
- Verbal presentation to the group of learners

#### **Assessment Method**

Assessment may involve any of the following methods

- Oral questioning
- Experiments
- Computer managed testing

- Drawing Exercise
- Computer drawing program

**Learning Outcome 6:** Identify the roles of other Organizations.

**Assessment Criteria:** 

- a. Describe the Testing Laboratories involved in developing the codebook.
- b. Describe the Manufacturer's Associations involved in developing the codebook.

All work practices must ensure that safe practices are adopted:

#### **Conditions**

Working in groups given:

- Resources
- Verbal presentation to the group of learners

#### **Assessment Method**

- Assessment may involve any of the following methods
  - Oral questioning
- Written tests

## **Required Course Materials:**

#### 1. Instructor:

- a. Laboratory equipment with tools of the trade
- b. Text; Text(s); NCCER, Electrical Level One, Annotated Trainee Guide, Prentice Hall Upper Saddle, New Jersey, Columbus, Ohio.
- c. Teacher's Resource Guide, workbook
  - d. Overhead projector, transparencies

#### 2. Student:

- a. Text(s), NCCER; Electrical Level One, Trainee Guide, Prentice Hall Upper Saddle, New Jersey, Columbus, Ohio.
- b. Ring binder
- c. College ruled note sheet, pencil or pen
- d. Scientific calculator

## **Reference Materials:**

## **Method of Instruction:**

- 1. Lecture
- 2. Discussion
- 3. Group Exercises.

#### **Evaluation:**

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

96%-100% A - Superior

90%-95% B - Above Average 80%-89% C - Average 69%-79% D - Below Average

0 % -69% F - Failure

## **Attendance:**

The COM-FSM attendance policy will apply.

STUDENTS SHOULD BE MADE AWARE OF OCCUPATIONAL HEAL THAND SAFETY ISSUES INALL SITUATIONSAND BE EXPECTED TO DEMONSTRATE SAFE WORKING PRACTICES AT ALL TIMES.-