

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

**Course Outline Cover Page**

**Basic Stair Construction**

**Course Code: VCT 211**

**Course Description:** This course is designed to give the students the necessary skills to be able to set out, construct and install a straight flighted external/internal timber/steel stair. This course provides the underpinning knowledge of materials used in the construction and joinery industries and contributes towards the acquisition of the needed competencies in advanced stair construction.

**Course Prepared by:** Jeff Steel

**State:** Pohnpei

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

**Purpose of Course:**

Degree Requirement.....	
Degree Elective.....	<u>XX</u>
Certificate .....	
Apprenticeship .....	<u>XX</u>
Remedial.....	
Other (workshop).....	<u>XX</u>

**Prerequisite Course(s):** VSP 153a Industrial Safety,  
VCT 153 Introduction to Carpentry

\_\_\_\_\_  
**Signature, Chairperson, Curriculum Committee**

\_\_\_\_\_  
**Date Approved by Committee**

\_\_\_\_\_  
**Signature, President, COM-FSM**

\_\_\_\_\_  
**Date Approved by President**

<b>COURSE TITLE</b>	<b>Basic stair Construction</b>
<b>Nominal Duration</b>	<b>36 Hours/3 Credits</b>
<b>General Objectives:</b>	<b>This course is designed to give the students the necessary skills to be able to set out, construct and install a straight flighted external/internal timber/steel stair. This course provides the underpinning knowledge of materials used in the construction and joinery industries and contributes towards the acquisition of the needed competencies in advanced stair construction.</b>
<b>Prerequisites</b>	<b>VSP 153a Industrial Safety VCT 153 Introduction to Carpentry</b>
<b>Specific Objectives:</b>	<b>By the completion of this course the student will be able to:</b> <ol style="list-style-type: none"> <li><b>1. Understand the various terms and definitions relating to stairs.</b></li> <li><b>2. Identify the various types of stairs.</b></li> <li><b>3. Identify the various parts of stairs.</b></li> <li><b>4. Interpret construction drawings of stairs.</b></li> <li><b>5. Construct a small stair unit with a handrail.</b></li> </ol>
<b>Delivery</b>	<b>Delivery methods must provide for the demonstration of competence in skills specified in all learning outcomes.</b>
<b>Assessment</b>	<b>More than one learning outcome may be assessed at once, by observing the learners ability to apply both specified skills and knowledge.</b>

<p><b>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.</b></p>
--

## **Learning Outcome 1**

### **Stair Terminology**

#### **VCT 211.1**

**Understand the various terms and definitions relating to stair construction.**

#### **Assessment Criteria**

**211.1.1 Explain clearly the meanings of the terms and terminology used in the construction of stairs.**

**211.1.2 Identify the roles of specified personnel in the stair construction industry such as:**

- clients
- Architects
- Engineers
- Builders
- Sub-contractors

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

#### **Conditions**

**Working in groups given:**

- **Resources**
- **Verbal presentation to the group of learners**
- **Workplace visits to study recent and emerging trends that are current to the industry.**

#### **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 2**

### **Types of Stairs**

#### **VCT 211.2**

**Identify the various types of stairs.**

#### **Assessment Criteria**

**211.2.1 Identify types of external and internal stairs and the various layouts into which they maybe incorporated.**

**211.2.2 Explain the difference between open and closed stairway construction.**

**211.2.3 Explain geometrical stair construction.**

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

#### **Conditions**

**Working in groups given:**

- **Resources**
- **Verbal presentation to the group of learners**
- **Workplace visits to study recent and emerging trends that are current to the industry.**

#### **Assessment Methods**

**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 3**

### **Stairway Components**

#### **VCT 211.3**

**Identify the various parts of stairs.**

#### **Assessment Criteria**

**211.3.1 List all the components of an interior stairway.**

**211.3.2 Identify the following:**

- Closed stringer
- Open stringer
- Headroom clearance
- Cleated stringer
- Dadoed stringer
- Housed stringer

**211.3.3 List materials used in stair construction.**

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

#### **Conditions**

**Working in groups given:**

- **Resources**
- **Verbal presentation to the group of learners**
- **Workplace visits to study recent and emerging trends that are current to the industry.**

#### **Assessment Methods**

**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 4**

### **Stair Drawings**

**VCT 211.4**

**Interpret construction drawings of stairs.**

#### **Assessment Criteria**

**211.4.1 Draw to an appropriate scale, plan and elevation views of open and closed riser stairs.**

**211.4.2 Produce a detailed plan view of the following stairways:**

- Long-L Stairway.**
- Wide-L Stairway.**
- Wide-U Stairway.**
- Double-L Stairway.**
- Narrow-U Stairway.**
- Winding Stairway**

**211.4.3 Produce an isometric view of a straight flight stairway.**

**153a.4.4 Produce a sketch of framing a stairwell opening.**

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

#### **Conditions**

**Working in groups given:**

- **Resources**
- **Verbal presentation to the group of learners**
- **Workplace visits to study recent and emerging trends that are current to the industry.**

#### **Assessment Methods**

**Assessment may involve any of the following methods**

- **Oral questioning**
- **Written tests**
- **Computer managed testing**
- **Drawing Assignment**
- **Active participation in group activity**

## **Learning Outcome 5**

### **Stair Construction**

#### **VCT 211.5**

**Construct a small stair unit with a handrail.**

#### **Assessment Criteria**

**211.5.1 List four things that must be done with Protective Equipment:**

- Regularly inspect it.
- Properly care for it.
- Use it properly when needed.
- Never alter or modify it in any way.

**153a.5.2 Demonstrate the Safe use of the following:**

- Hard hat
- Safety glasses
- Safety shield
- Gloves
- Safety Shoes
- Hearing protection
- Respiratory Protection

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

#### **Conditions**

**Working in groups given:**

- Resources
- Verbal presentation to the group of learners
- Workplace visits to study recent and emerging trends that are current to the industry.

#### **Assessment Methods**

**Assessment may involve any of the following methods**

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

**SUGGESTED REFERENCE MATERIALS**

- **Manufactures Manuals**
- **Level Three, Wheels of Learning. 2000**  
Prentice-Hall, Inc Upper Saddle River, New Jersey.
- **Audio-Visual:**  
**Films:**
  - **Stair Construction level Three Video package.**

**RESOURCES**

- **Workshop Facilities**
- **Tools of Trade**
- **Demonstration Units**
- **Video/TV Set**
- **Overhead Projector**

**GRADES**

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

- |                     |                          |
|---------------------|--------------------------|
| • <b>90% - 100%</b> | <b>A – Superior</b>      |
| • <b>80% - 89%</b>  | <b>B – Above Average</b> |
| • <b>70% -79%</b>   | <b>C – Average</b>       |
| • <b>60% -69%</b>   | <b>D – Below Average</b> |
| • <b>0 – 59%</b>    | <b>F – Failure</b>       |

**ATTENDANCE**

**The COM-FSM attendance policy will apply**