

**Associate of Applied Science Degree**

**in**

**Building Technology Major - Construction Electricity**

**MATRIX**

**Program Learning Outcomes (PLO)**

On the program completion, the successful graduate will be able to:

1. Practice safety and occupational health procedures in the workplace.
2. Use electricity hand and power tools competently.
3. Test electrical equipment.
4. Interpret schematic wiring diagram and waveforms
5. Determine the amount of load per circuit.
6. Install residential wiring circuits according to given specification and plan.
7. Identify and interpret basic solid state (electronics) symbols and circuit schematics commonly found in the electrical industry.
8. Analyze circuit operations on basic motors.
9. Perform basic troubleshooting on basic motors.
10. Install and perform basic maintenance on air-conditioning units.
11. Interpret and install circuits according to rules and regulations of National Electrical Code book.
12. Install and analyze basic motor control circuits.

Course Name	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11	PLO 12
VEM 102 Electrical Drawing & Sketching				I,D,M								
VEM 103 Basic Electricity I	I,D	I,D	I,D,M	I,D,M	D,M							
VEM 104 Basic Electricity II	I,D	I,D	I,D,M	I,D,M	D,M							
VEM 110 Workshop Fabrication	I,D	I,D	D,M	I,D		D,M						

VEM 111 Electrical Wiring I	I,D		D,M		I,D,M							
VEM 112 Electrical II	I,D	I,D,M	D,M	I,D,M		D,M						
VSP 121 Industrial Safety	I,D	I,D,M	D,M									
VEM 105 Basic Electricity for AC	I,D	I,D	I,D		I,D	D,M		I,D		D,M		
VEM 113 Refrigeration I	I,D	D,M		I,D	I,D	D,M		I,D	I,D	D,M		
VEM 212 National Electrical Code	I,D				I,D	D,M		I,D		I,D	D,M	D,M
VEE 110 Discrete Device I	I,D		D,M	D,M			D,M					
VEE 222 Discrete Device II	I,D		D,M	D,M			D,M					
VEE 266 Rotating Machinery	I,D	I,D						D,M	D,M		I,D	
VEM 240 Industrial Wiring	I,D	I,D						D,M			I,D	D,M

**I- Introduced**

**D – Demonstrated**

**M – Mastery at a level appropriate for graduation**