# **Building Technology Program**

## **Program Student Learning Outcomes Assessment** (AY 2016-2017)

# Program Student Learning Outcomes (PSLOS)

At the completion of **Building Technology Program**, the student will be able to:

- 1. Practice Safety and occupational health procedures in the workplace.
- 2. Use electrical hand and power tools competently.
- 3. Test electrical equipment.
- 4. Interpret schematic diagrams and waveforms.
- 5. Determine the amount of load per circuit.
- 6. Install 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 of air-conditioning units.
- 11. Interpret and install electrical circuits according to rules and regulations of the National Electrical Code book.
- 12. Install and analyze basic motor control circuits.

## What we looked at:

Courses offered from Fall 2016 to Spring 2017 of Building Technology (BT) Program assessment which focused on PSLO's 7, 8, 9, 11 & 12. During these terms students' competency was assessed on PSLO 8, 9, 11 &12 through written and hands-on activities/experimentation. (PSLO's 1 to 6 was assessed during their certificate program) Table below shows the total number of students' registered and the descriptive summary of results for each course.

## What we found:

Courses FA16 – SP17	PSLO's	No. of students	Students Passed	D's	F's
VEE 266	8 & 9	8	8	0	0
VEM 212	11	8	8	0	0
VEM 240	9, 11 & 12	11	11	0	0

- 100% of the students got 'C' or better and were able to show success in demonstrating basic knowledge and troubleshooting AC & DC motors using performance worksheet and Simutech Troubleshooting Skills report in VEE 266 (Rotating Machinery).
- 100% of the students got 'C' or better and were able to demonstrate basic knowledge and provide code reference to interpret required electrical applications or standards. Students'

performances were assessed by using the worksheets (National Electrical Code Handbook) in VEM 212.

• 100% of the students got 'C' or better and were able to show success in demonstrating basic knowledge in installation and troubleshooting of motor controls using performance worksheet and the Simutech Troubleshooting Skills report in VEM 240 (Industrial Wiring).

#### What we are planning to work on:

Modification request for Building Technology major in Electrical program is now in process and awaits approval. Base on that modification, current competencies in-demand for an Electrical technician's qualification will be met and will include PLO's with improvement linkage to CSLO's and by inclusion of Solar PV technology into BT program. Lessen contact hours in academic requirements (GenEd. course) and more focus on hands-on/practical courses and servicing. Also included in the propose program, student industrial immersion (OJT) to practice and enhance mastery of their learned skills in actual workplace setting. Propose articulation of BT courses with regional institution such as PCC, GCC and HCC to recognize mutual benefits of course articulation and transfer of course credits between these institutions. Continue collaboration with stakeholders (advisory council for construction trades) to give inputs on course SLO's improvement and to prepare students for industry skills certification.

#### **Recommendations for students:**

Students must have a grade of "C" or better in Math and English courses to help students become proficient to meet the technical course work in Building Technology. Likewise should also satisfactorily meet the prerequisite of each course in the program to assure program completion in two years.

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