

Assessment Impact by Unit Objectives

College of Micronesia - FSM

A - instruction - Building Technology (AAS)

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Mission Statement: The career and technical training divisions of COM-FSM are learning communities dedicated to creating a high quality workforce through educational excellence and student success in collaboration with its diverse communities.

The Building Technology Majoring – Construction Electricity program offers academic course work, technical skills training and practical experience to prepare students as Electrician in this field. Students are introduced to theory, installation and practices in troubleshooting residential circuits, motor circuits and motor control circuits.

Program Student Learning Outcome: PSLO 1

Practice safety and occupational health procedures in the workplace.

PSLO Assessment Cycle: 2012 - 2013
2013 - 2014

Start Date: 08/19/2013
Inactive Date: 05/05/2014
PSLO Status: Inactive

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Actual wearing of PPE and practice of safety procedures during workshop. Assessment Type: Exam/Quiz - In Course	70% of students in CA Construction Electricity should atleast have a grade of "C" or better.		Yes

Related Courses

- VEM 110 - Workshop fabrication

Related Tasks

* Task Name: Safety Practices

Task Description: Using instructor's safety matrix during their practical activities, students will be assessed accordingly on how they practice safety in the workplace.

Results			
Result	Improvement	Follow-Up	Reporting Period
No Results reported.			

Program Student Learning Outcome: PSLO 2

Use electricity hand and power tools competently.

PSLO Assessment Cycle: 2012 - 2013
2013 - 2014

Start Date: 08/20/2012
Inactive Date: 05/08/2013
PSLO Status: Inactive

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Student will perform actual circuit construction on the circuit board following the given procedures and proper use of tools. Assessment Type: Presentation/Performance	70% of students in CA Construction Electricity should at least have a grade of "C" or better.		Yes

Related Courses

- VEM 110 - Workshop fabrication

Related Tasks

* Task Name: Proper use of hand and power tools

Task Description: Using their tool kit as basis for evaluating students initiative on how they use specific tools for their hands-on activities/application and how they maintain the tools.

Results			
Result	Improvement	Follow-Up	Reporting Period
No Results reported.			

Program Student Learning Outcome: PSLO 3

Test electrical equipment.

PSLO Assessment Cycle: 2012 - 2013

Start Date: 08/20/2012

Inactive Date: 05/08/2013

PSLO Status: Inactive

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Measure electrical circuit parameters using multimeter and other related electrical/ electronic test equipment. Assessment Type: Exam/Quiz - In Course	70% of students in AAS Building Technology major in Construction Electricity should at least have a grade of "C" or better.		No

Related Courses

- VEM 103 - Basic Electricity I

- VEM 104 - Basic Electricity II

Related Tasks

* Task Name: Calibration of Multimeter and Oscilloscope

Task Description: Students will learn and familiarize proper use and calibration of multimeter and oscilloscope in their hands-on experiment/activities.

Results			
Result	Improvement	Follow-Up	Reporting Period
No Results reported.			

Program Student Learning Outcome: PSLO 4

Interpret schematic wiring diagrams and waveforms.

PSLO Assessment Cycle: 2012 - 2013

Start Date: 08/20/2012

Inactive Date: 05/08/2013

PSLO Status: Inactive

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Actual reading and circuit interpretation of schematic symbols and waveforms used in the circuit diagrams. Assessment Type: Exam/Quiz - In Course	70% of students in AAS BT major in CE should atleast have a grade of "C" or better.		No

Related Courses

- VEM 102 - Electrical/Electronic Drawing and Sketching

Related Tasks

* Task Name: Symbols and wave form familiarization

Task Description: Students will identify electrical and electronic symbols and different wave forms used in DC/AC circuits.

Results			
Result	Improvement	Follow-Up	Reporting Period
No Results reported.			

Program Student Learning Outcome: PSLO 5

Determine the amount of load per circuit.

PSLO Assessment Cycle: 2012 - 2013
2013 - 2014

Start Date: 08/20/2012

Inactive Date: 05/08/2013

PSLO Status: Inactive

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Calculate branch circuit and load per circuit to determine wire size, ampacity and protection devices. Assessment Type: Exam/Quiz - In Course	70% of students in AAS Building Technology major in Construction Electricity should at least have a grade of "C" or better.		No
Using standards and regulations of the NEC code in calculating load per circuit. Assessment Type: Exam/Quiz - In Course	70% of students in AAS Building Technology major in Construction Electricity should atleast have a grade of "C" or better.		No

Related Courses

- VEM 103 - Basic Electricity I
- VEM 104 - Basic Electricity II
- VEM 105 - Basic Electricity for AC
- VEM 111 - Electrical wiring I
- VEM 113 - Refrigeration I
- VEM 212 - National Electric Code

Related Tasks

* Task Name: NEC codes familiarization on calculating loads per circuit.

Task Description: Students will use NEC book as reference to determine standards and regulations in calculating loads per circuit.

Results			
Result	Improvement	Follow-Up	Reporting Period
No Results reported.			

Program Student Learning Outcome: PSLO 6

Install residential wiring circuits according to given specification and plan.

PSLO Assessment Cycle: 2012 - 2013
2013 - 2014

Start Date: 08/20/2012

Inactive Date: 05/08/2013

PSLO Status: Inactive

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Actual installation and practices used in residential wiring and proper use of different wiring methods and fixtures in the installation. Assessment Type: Presentation/Performance	70% of the students in CA Construction Electricity should atleast have a grade of "C" or better.		Yes

Related Courses

- VEM 112 - Electrical wiring II

Related Tasks

* Task Name: Residential Wiring

Task Description: Given with electrical floor plan, students will layout/wire the circuit base on the specifications and National Electrical Code (NEC) standards.

Results			
Result	Improvement	Follow-Up	Reporting Period
No Results reported.			

Program Student Learning Outcome: PSLO 7

Identify and interpret basic solid state (electronics) symbols and circuit schematics commonly found in the electrical industry.

PSLO Assessment Cycle: 2012 - 2013

Start Date: 08/20/2012

Inactive Date: 05/08/2013

PSLO Status: Active

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Identifying solid state devices used in the experiment and its schematic symbols using the NIDA test console and NIDA cards. Assessment Type: Exam/Quiz - In Course	70% of students in AAS Building Technology major in Construction Electricity should atleast have a grade of "C" or better.		Yes
Perform circuit tracing and identifying solid state component operation and function in their NIDA experiments. Assessment Type: Presentation/Performance	70% of students in AAS Building Technology major in Construction Electricity should atleast have a grade of "C" or better.		Yes

Related Courses

- VEE 110 - Discrete Devises I
- VEE 222 - Discrete Devices II

Related Tasks

* Task Name: Familiarizing solid state components in electronic circuits.

Task Description: Familiarize/Become aware of the symbols, operating characteristics and application of different discrete devices (solid state) use in their experiments.

Results			
Result	Improvement	Follow-Up	Reporting Period
Familiarizing solid state components in electronic circuits. - 05/17/2013 - In Spring 2013, VEE 222, 15 out of 15 or 100% of the students got a grade of	02/11/2014 - Increase the number of hours in hands-on activity to improve student competency in identifying,		2012 - 2013

Results			
Result	Improvement	Follow-Up	Reporting Period
"C" or better in this course. Target Met: Yes	interpreting of symbols and reading of schematic diagrams of electrical/electronics circuits.		
Familiarizing solid state components in electronic circuits. - 05/17/2013 - In Spring 2013, VEE 110, 13 out of 14 or 93% of the students got a grade of "C" or better in this course. Target Met: Yes			2012 - 2013
Familiarizing solid state components in electronic circuits. - 10/17/2012 - In Fall 2012, VEE 110, 12 out of 14 or 86% of the students got a grade of "C" or better in this course. Target Met: Yes			2012 - 2013

Program Student Learning Outcome: PSLO 8

Analyze circuit operations on basic motors.

PSLO Assessment Cycle: 2012 - 2013
2013 - 2014

Start Date: 08/19/2013

Inactive Date: 05/05/2014

PSLO Status: Active

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Identifying AC/DC motor parts and functions. Assessment Type: Presentation/Performance	70% of students in AAS Building Technology major in Construction Electricity should atleast have a grade of "C" or better.		Yes
Familiarize with the operation of the different AC/DC motors and generators. Assessment Type: Exam/Quiz - In Course	70% of students in AAS Building Technology major in Construction Electricity should atleast have a grade of "C" or better.		Yes

Related Courses

- VEE 266 - Rotating machinery

Related Tasks

* Task Name: DC/AC motor/generator familiarization

Task Description: Identify motor/generator parts and their operating characteristics during their class hands-on activities.

Results			
Result	Improvement	Follow-Up	Reporting Period
DC/AC motor/generator familiarization - 12/17/2012 - In Fall 2012, VEE 266, 13 out 14 or 93% of the students got a grade of "C" or better in this course. Target Met: Yes	12/20/2013 - As suggested, modify VEE 266 into VEM 266 to give more emphasis on AC motors/generators and incorporate troubleshooting and repair in the SLO's to develop students skills and performance in this PSLO.		2012 - 2013

Program Student Learning Outcome: PSLO 9

Perform basic troubleshooting on basic motors.

PSLO Assessment Cycle: 2012 - 2013
2013 - 2014

Start Date: 08/19/2013

Inactive Date: 05/05/2014

PSLO Status: Active

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Troubleshoot motor faults using correct procedures. Assessment Type: Presentation/Performance	70% of students in AAS Building Technology major in Construction Electricity should atleast have a grade of "C" or better.		Yes
Troubleshoot motor faults and tabulate causes and remedies. Assessment Type: Presentation/Performance	70% of students in AAS Building Technology major in Construction Electricity should atleast have a grade of "C" or better.		Yes

Related Courses

- VEE 266 - Rotating machinery

Related Tasks

* Task Name: AC/DC motor troubleshooting.

Task Description: Identify possible motor faults and perform simulated troubleshooting using Simutech skills series software.

Results			
Result	Improvement	Follow-Up	Reporting Period
AC/DC motor troubleshooting. - 12/17/2012 - In Fall 2012, VEE 266, 13 out of 14 or 93% of the students got a grade of "C" or better in this course. Target Met: Yes	02/15/2014 - Needs more AC/DC motors for hands-on activities so that students can grasps the skills in troubleshooting motors.		2012 - 2013

Program Student Learning Outcome: PSLO 10

Install and perform basic maintenance of air-conditioning units.

PSLO Assessment Cycle: 2012 - 2013

Start Date: 08/20/2012

Inactive Date: 05/08/2013

PSLO Status: Active

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Follow procedures in performing preventive maintenance of refrigeration and air-conditioning unit. Assessment Type: Presentation/Performance	70% of students in AAS Building Technology major in Construction Electricity must get a grade of "C" or better.		Yes

Related Courses

- VEM 105 - Basic Electricity for AC

- VEM 113 - Refrigeration I

Related Tasks

* Task Name: Basic wiring and operation of air-conditioning unit.

Task Description: Familiarize with the basic operation and installation of air-conditioning unit.

Results			
Result	Improvement	Follow-Up	Reporting Period
No Results reported.			

Program Student Learning Outcome: PSLO 11

Interpret and install electrical circuits according to rules and regulations of the National Electrical Code book.

PSLO Assessment Cycle: 2012 - 2013

Start Date: 08/20/2012

Inactive Date: 05/08/2013

PSLO Status: Active

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Students must familiarize the standards applicable to electrical wiring installation and answer worksheets using code as references based on NEC book regulations.	70% of students in AAS Building Technology major in Construction Electricity must get a grade of "C" or better.		Yes
Assessment Type: Exam/Quiz - In Course			

Related Courses

- VEM 212 - National Electric Code

Related Tasks

* Task Name: Standards and Regulations of NEC on electrical wiring.

Task Description: Familiarize with the use of NEC book and standards/regulations on the use of different wiring methods.

Results			
Result	Improvement	Follow-Up	Reporting Period
Standards and Regulations of NEC on electrical wiring. - 05/17/2013 - In Spring 2013, VEM 212, 5 out of 6 or 83% of students got a grade of "C" or better in this course. Target Met: Yes	02/15/2014 - Update National Electrical Code book every 3 years of reprinting edition. If possible, use electronic/soft copy.		2012 - 2013
Standards and Regulations of NEC on electrical wiring. - 12/17/2012 - In Fall 2012, VEM 212, 8 out of 8 or 100% of the students got a grade of "C" or better in this course. Target Met: Yes			2012 - 2013

Program Student Learning Outcome: PSLO 12

Install and analyze basic motor control circuits.

PSLO Assessment Cycle: 2012 - 2013

Start Date: 08/20/2012

Inactive Date: 05/08/2013

PSLO Status: Active

Assessment Strategies			
Assessment Strategy	Target	Notes	Active
Students must identify and interpret motor control circuit-components in ladder diagram. Assessment Type: Exam/Quiz - In Course	70% of students in AAS Building Technology major in Construction Electricity must have a grade of "C" or better.		Yes
Install and troubleshoot motor control circuit by simulation using the SIMUTECH TS skills software. Assessment Type: Presentation/Performance	70% of students in AAS Building Technology major in Construction Electricity must get a grade of "C" or better.		Yes

Related Courses

- VEM 240 - Industrial wiring

Related Tasks

* Task Name: Installation and troubleshooting motor control circuits.

Task Description: Familiarize with motor control devices, install and troubleshoot motor control circuits using Simutech TS skills series.

Results			
Result	Improvement	Follow-Up	Reporting Period
Installation and troubleshooting motor control circuits. - 05/17/2013 - In Spring 2013, VEM 240, 9 out of 10 or 90% of students got a grade of "C" or better in this course. Target Met: Yes	02/15/2014 - Update regularly Simutech troubleshooting software to the latest version. Recommend change of textbook for this course.		2012 - 2013