

Report : Operational Plan Details for : Electrician

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Workspace : Program Assessment Plans

Operational Plan : 2018-2020 Assessment Cycle: Use of Results and Status Report

Operational Plan Template : Academic Program Operational Plan Template

Report Generated : Friday, September 04, 2020

## Actions and Status Report

### *Electrician Outcome Set (2018-2020)*

#### ✦ Outcome

#### **SLO 1**

*Demonstrate proficient knowledge of measuring and layout with a standard tape measure.*

#### **Action Plan for SLO 1**

##### **Action Plan Details:**

Students exceeded performance expectations on both measures of SLO 1 during the assessment period. However, faculty note that more time and concentration will be spent on lecture activities concentrating on detail and identifying students with challenges learning the material. Students will be separated when performing tasks to better assess individual outcomes. Pie charts will be developed to illustrate basic fraction methodology and applied to increments shown on a tape measure or ruler.

##### **Measures:**

Course Alignment: ELEC 1120  
Acceptable Target: At least 80% of students will show proficiency in using a standard tape measure and points of reference for layout of electrical apparatus.  
Measure Description: Performance profile, rubric and written exam.

#### **SLO 2**

*Understand and apply math skills as they relate to construction math and accurate measurements.*

#### **Action Plan for SLO 2**

##### **Action Plan Details:**

Students exceeded performance expectations on both measures associated with SLO 2. Moving forward, faculty commit to improvements related to increased understanding of fractions and square foot calculations. Lecture will concentrate on

illustrating what a fraction actually is and how it will apply to day to day tasks in the electrical industry. Pie charts will be used as a visual aid to apply special relationships to various fractions. Square foot calculations will be more clearly defined and presented in a more understandable method

**Measures:**

Course Alignment: ELEC 2460  
Acceptable Target: At least 70% of students will demonstrate the ability to add and subtract fractions.  
Measure Description: Written Exam -Add and subtract fraction sets

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### **SLO 3**

*Learn to perform all aspects of conduit bending.*

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#### ***Action Plan for SLO 3***

**Action Plan Details:**

Students exceeded expectations on both measures of SLO 3. In the 2020-2021 academic year, faculty commit to increasing rigor on back to back conduit bends and offset definition. Rigor will be increased by a direct focus on alignment and adding another back to back bend with an additional trade size of conduit. The definition will include listing the multipliers of 3 different degrees of offset.

**Measures:**

Course Alignment: ELEC 1220  
Acceptable Target: At least 85% of students will make a back to back 90 degree bend at 24 inches  
Measure Description: Performance Evaluation and Rubric - Make a back to back 90 degree bend with trade size conduit.

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### **SLO 4**

*Develop knowledge and skills related lighting fixtures and takeoffs.*

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#### ***Action Plan for SLO 4***

**Action Plan Details:**

Students exceeded both targets for measures related to SLO 4. Moving forward, faculty will increase rigor on ladder logic and lighting fixture identification and quantity assessments. Students will be asked to perform the count twice and compare any differences and lecture will focus on fixture typing and the methodology

behind it. Ladder logic diagram and testing will remain the same. To increase rigor students will be asked to perform practical wiring on same schematic using lab trainers.

**Measures:**

Course Alignment: ELEC 1440

Acceptable Target: At least 75% of students will demonstrate the ability to read and understand ladder logic.

Measure Description: Written Exam - Lighting fixture takeoff

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## SLO 5

*Understand and perform all aspects of multiple switching locations controlling luminaries.*

### *Action Plan for SLO 5*

**Action Plan Details:**

100% of students successfully completed both measures for SLO 5. In the 2020-2021 year, complexity will be added the scenario to further reinforce learning. A four way switch to three way switching scenario both practical and diagrammatically will be added. Overall this is a very relevant assessment. To increase vigor a four way switch will be added to the wiring scenario and to the diagram drawing.

**Measures:**

Course Alignment: ELEC 1311

Acceptable Target: At least 80% of students will be able to schematically draw four way switching applications

Measure Description: Performance Evaluation and Rubric