

Course Outcomes Guide

Course/Program Title: ELE 210 - Energy System Management

Date: 8/27/2013

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Expected Learning Outcomes

- Knowledge of Instrumentation and Process Control
Specific area of knowledge in this case will be the use of data collection devices and controls for Current, Voltage, Temperature, Humidity, Light, Discrete Controls, Control Systems and Remote Monitoring Systems.
- Knowledge of Instrumentation troubleshooting, repair and maintenance
- Demonstrate competency of the subject matter in an applied environment
- Exhibit professional/occupational behavior and work habits

Assessment (How do or will students demonstrate achievement of each outcome?)

The learning outcomes were demonstrated in the following manner:

Knowledge of Instrumentation and Process Control	Selected Test Questions and Exercises
Knowledge of Instrumentation troubleshooting, repair and maintenance	
Demonstrate competency of the subject matter in an applied environment	
Exhibit professional/occupational behavior and work habits	On-time Attendance

Validation (What methods have you used or will you use to validate your assessment?)

The course assessments will be validated by review from the following sources:

1. Facility Peer validation through continued feedback from fellow faculty members
2. Industry validation through the Advisory Committee. The advisory committee has a chance to review the course outcomes and discuss how that fits with the overall program outcomes and regional industry needs

Results (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

Since Spring 2013 was the first semester when this course was taught, a good portion of the feedback was based on

Knowledge of Instrumentation and Process	
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Control control systems	Average Key Question Test Scores 87%
Knowledge of Instrumentation troubleshooting, repair and maintenance	
Demonstrate competency of the subject matter in an applied environment	
Exhibit professional/occupational behavior and work habits	On-time Attendance: 80%

Follow-up (How have you used or how will you use the data to improve student learning?)

At this time we do not have sufficient data to require making any changes to course content, however, based on how the course material fit the semester, A reduction in the initial overview material might be considered to allow for more time on the hardware and software for data collection

Budget Justification (What resources are necessary to improve student learning?)

No budget adjustments are required at this time because of donated equipment, however, after one semester of teaching I would suggest strongly the purchase of a set of trainers.