

CNM ANNUAL STUDENT LEARNING ASSESSMENT REPORT

Due to the Student Academic Assessment Committee by October 15



PART 1: REPORT INFORMATION

Report Year and Contact Information			
<u>2018-2019</u>	<u>Eric Barros</u>	<u>ebarros@cnm.edu</u>	<u>52949</u>
Academic Year	Contact Person	CNM Email	CNM Office Extension

Subject of this Report
AT--ELTR_CERT--Electrical Trades General Certificate

PART 2: CONTEXT IN WHICH THE ASSESSMENT TOOK PLACE

Program/Area Highlights and Successes
(Wherever applicable, include course completion rates, job placement outcomes, and licensing examination pass rates. See the program information dashboard at https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx (access restricted to CNM employees) and other reports at https://www.cnm.edu/depts/opie .)
The retention rate increased on average from 89% to 95% between 2016/2017 and 2017/2018 reporting years. Withdrawal rates decreased from 10.4% to 4.8% during the same time period.

Changes Implemented During the Past Year in Support of Student Learning
Continued improvements revolving around competency based lab projects recommended by industry partners has led to further implementation of competency based assessments. This includes final exams that are now more focused on if and how the students are able to demonstrate their ability to actually design and wire complex motor control projects (i.e. smaller written portion and a more involved hands on assessment where students have to design, build, and wire an industrial motor starter that will physically reverse a three-phase motor)

PART 3: REPORT ON ASSESSMENT OF STUDENT LEARNING

Assessment Method	Type of Assessment Tool	Population or Course(s) Assessed	Graduate Learning Outcome(s) Assessed	Mastery Level (E.g., "Minimum score of 3 on a rubric scaled 0-4" or "Minimum score of 75%")	Targeted % Achieving Mastery	Outcome
In class projects consisting of hands on motor control wiring projects in the industrial wiring lab.(follow up assessment)	Direct & Internal	ELTR 2020	Students ability to interpret, design and install common motor control projects.	A continued 100% completion rate.	100%	Target met
Final exam (follow up assessment)	Direct & Internal	ELTR 2020	Students ability to interpret, design and install complex motor control projects.	Increase in final exam scores to above an 80% average	90%	Target met
Competency based final exam similar to ELTR 2020 where students physically fabricate an electrical conduit system in the lab to simulate real-world scenarios.	Direct & Internal	ELTR 2030	Students ability to interpret, design and install portions of complex industrial power installations (e.g. using the hydraulic bender to fabricate an offset on an industrial sized conduit)	Students ability to interpret, design and install complex motor control projects.	80%	N/A
Click or tap here to enter text.	Choose an item.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Choose an item.	Choose an item.
Click or tap here to enter text.	Choose an item.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Choose an item.	Choose an item.
Click or tap here to enter text.	Choose an item.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Choose an item.	Choose an item.

Click or tap here to enter text.	Choose an item.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Choose an item.	Choose an item.
Click or tap here to enter text.	Choose an item.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Choose an item.	Choose an item.
Click or tap here to enter text.	Choose an item.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Choose an item.	Choose an item.
Click or tap here to enter text.	Choose an item.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Choose an item.	Choose an item.

Summary of Assessment Findings

The switch to competency based assessments has directly helped to increase in final exam scores in the ELTR 2020 Lab. This has led to similar assessments being introduced and implemented in ELTR 2030 Industrial Power Distribution lab in order to help focus students' actual wiring abilities and not just their ability to memorize information.

Interpretation of Assessment Findings

Students who have demonstrated their competency regarding hands on wiring projects throughout the term have gone on to score higher on the final assessment (hands on final exam where students design and build a working electrical system in the third term lab.) than scores students obtained before competency based lab projects were implemented.

Action Plan in Support of Student Learning (Describe changes to be made that are based at least in part on the assessment interpretation. If the assessment did not yield useful information, describe changes to be made in the assessment methodology and/or criteria.)

Based on the summary and interpretation of assessment findings, competency based assessments have helped yield higher than average scores on the final exam. The plan is to implement competency based assessments in the Industrial power distribution lab (ELTR 2030).

Please select all of the following that characterize the types of changes described in the above action plan:

- | | | |
|---|---|---|
| <input type="checkbox"/> Assessment criteria revision | <input checked="" type="checkbox"/> Assessment methodology revision | <input checked="" type="checkbox"/> Assignment revision |
| <input type="checkbox"/> Budgetary reallocation | <input checked="" type="checkbox"/> Change in teaching approach | <input type="checkbox"/> Course content revision |

Curricular Revision

Faculty training/development

Process revision

Recommendations, Proposals, and/or Funding Requests	Budget Needed
N/A	Click or tap here to enter text.

PART 4: REMAINING YEARS IN CURRENT ASSESSMENT CYCLE PLAN (including any revisions) – **OR -- UPCOMING ASSESSMENT CYCLE PLAN** (if this was the final year)

Years of Full Cycle	Next Year's Assessment Focus (Describe how the next planned assessment is expected to provide information that can be used toward improving student learning.)
2016- 2020	To obtain more detailed information regarding competency based assessments and their correlation to higher scores on the final assessment in Industrial Power Distribution lab (ELTR 2030)

Graduate Learning Outcomes to Be Assessed	Years in which Assessment Is Planned	Population/Courses to Be Assessed	Planned Assessment Approach
Students ability to Bend conduit using hand, mechanical and hydraulic bending methods	2019	ELTR 2030	Hands on assignments, projects and final exam
Students will design and install (using in lab trainer built specifically to simulate conduit installations) relevant power distribution systems in accordance with the National Electrical Code.	2020	ELTR 2030	Hands on projects and assessments
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

