

**Course Assessment Report
Washtenaw Community College**

Discipline	Course Number	Title
Electricity/Electronics	204	ELE 204 12/31/2016- National Electrical Code
Division	Department	Faculty Preparer
Advanced Technologies and Public Service Careers	Industrial Technology	Dale Petty
Date of Last Filed Assessment Report		

I. Assessment Results per Student Learning Outcome

Outcome 1: Apply an understanding of the National Electrical Code (NEC) organization of chapters, articles and sections to effectively locate specific material in the Code needed to do residential, commercial, farm, and industrial wiring and to be successful with electrical examinations.

- Assessment Plan
 - Assessment Tool: Multiple choice test
 - Assessment Date: Winter 2016
 - Course section(s)/other population: all
 - Number students to be assessed: all
 - How the assessment will be scored: Answer Key
 - Standard of success to be used for this assessment: 70% of the students will score 70% or higher.
 - Who will score and analyze the data: Departmental (ELE) faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2016	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
8	6

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Two students did not take the final.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Limited sections offered, only data available for one section.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

All questions on the final exam were scored according to an answer key. Average percent wrong for each question was determined using Scantron Item Analysis. Average percent right for each question was calculated with Excel over all classes. The percent of questions answered correctly by 70% of students was determined overall and for each Article of the NEC.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

All students who completed the course and took the final exam scored 70% or higher.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Strengths - wiring and protection, wiring methods and materials, equipment for general use

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Weaknesses - introductory material and general material

Some of this material is "picky" e.g. the difference between "shall" and "shall be permitted"

Probably the instructor emphasized the "working" part of the code more.

Outcome 2: Interpret NEC rules and perform electrical calculations using the tables in the NEC needed to do wiring installations.

- Assessment Plan
 - Assessment Tool: Multiple choice test
 - Assessment Date: Winter 2016
 - Course section(s)/other population: all
 - Number students to be assessed: all
 - How the assessment will be scored: Answer Key
 - Standard of success to be used for this assessment: 70% of the students will score 70% or higher.
 - Who will score and analyze the data: Departmental (ELE) faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
	2016	

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
8	6

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Only 6 took final.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

This outcome was not assessed since the final exam did not address it separately.

- Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: <u>No</u>
This outcome was not assessed since the final exam did not address it separately.

- Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

This outcome was not assessed since the final exam did not address it separately.

- Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

This outcome was not assessed since the final exam did not address it separately.

II. Course Summary and Action Plans Based on Assessment Results

- Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

<p>This course is primarily for electrician apprentices and is required for their job, so generally students know it's important and work hard to learn the material even though it's mostly "book work" and not easy for most of our students. Students did well in all areas so there is no plan to change the course.</p> <p>In the course of this assessment, I realized that the part-time instructor who teaches this course was really covering outcome 2 on the final exam.</p>

- Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

Will be discussed in detail with the part-time instructor who teaches this class, as well as with the other ELE faculty and the IT department as a whole.

- Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
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Assessment Tool	We'll need to discuss with the part time instructor who usually teaches this course whether outcome 1 is being covered in the course and how to include this information in the assessment, perhaps by including more of these type questions on the final exam.	If we don't get the data from the P-T instructor, we can't do the assessment	2017
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4. Is there anything that you would like to mention that was not already captured?

none

III. Attached Files

[204 final exam](#)

[ELE 204 Assesement Analysis](#)

Faculty/Preparer: Dale Petty **Date:** 01/02/2017
Department Chair: Thomas Penird **Date:** 02/01/2017
Dean: Brandon Tucker **Date:** 03/01/2017
Assessment Committee Chair: Ruth Walsh **Date:** 03/19/2017