

Institutional Learning Outcomes (ILO's)

1. Effective oral communication
2. Effective written communication
3. Critical thinking
- 4. Problem solving**
5. Intercultural knowledge and competence
- 6. Information literacy**
- 7. Foundations and skills for life-long learning**
8. Quantitative reasoning

Program Learning Outcomes (PLO's)

1. Practice safety and occupational health procedures in the workplace.
2. Use electricity hand and power tools competently.
- 3. Test electrical equipment.**
- 4. Interpret schematic wiring diagrams and waveforms.**
5. Determine the amount of load per circuit.
6. Install residential wiring circuits according to given specification and plan.

SLO#	Program SLO#	IDM	ILO	Reflection/Comment									
1 Describe electrical principles of alternating current and various AC waveforms.	4	I, D	4,6	<p>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below:</p> <table border="1"> <thead> <tr> <th>No. of students</th> <th>Score</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>69 or lower</td> <td>failed</td> </tr> <tr> <td>10</td> <td>70 or better</td> <td>passed</td> </tr> </tbody> </table> <p>83% of the students passed this SLO.</p> <p>Observation: <i>students with low scores – reason was due to reading comprehension problem.</i></p>	No. of students	Score	Comment	2	69 or lower	failed	10	70 or better	passed
No. of students	Score	Comment											
2	69 or lower	failed											
10	70 or better	passed											
2. Competently use AC test equipment	3	I, D	6,7	<p>SLO was assessed by written test questions and a performance exam using the assessment criteria as stated in the course outline. Result of assessment is shown below:</p>									

				<table border="1"> <thead> <tr> <th>No. of students</th> <th>Score</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>69 or lower</td> <td>failed</td> </tr> <tr> <td>9</td> <td>70 or better</td> <td>passed</td> </tr> </tbody> </table> <p>75% of the students passed this SLO.</p> <p><i>Program needs to purchase 5 analog multi-meters</i></p> <p>Note: <i>Circuit board construction was also introduced to transform circuit sketching to actual circuits. Additionally, circuit analysis is also conducted to compare circuit calculations to circuit measurements.</i></p>	No. of students	Score	Comment	3	69 or lower	failed	9	70 or better	passed
No. of students	Score	Comment											
3	69 or lower	failed											
9	70 or better	passed											
3. Calculate resistance, inductance and capacitance of an AC circuit.	4	I,D	4,7	<p>SLO was assessed by written test questions and a performance exam using the assessment criteria as stated in the course outline. Result of assessment is shown below:</p> <table border="1"> <thead> <tr> <th>No. of students</th> <th>Score</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>69 or lower</td> <td>failed</td> </tr> <tr> <td>8</td> <td>70 or better</td> <td>passed</td> </tr> </tbody> </table> <p>67% of the students passed this SLO.</p> <p>Observation: <i>students with low scores – reason was due to poor math skills, mainly the application of engineering (scientific) notations and using scientific calculators.</i></p> <p>Observation: <i>To master the use of testing equipment, students must first have a full understanding of the theoretical aspects of the testing equipment. Poor English skills were a contributing factor in mastering this SLO. In addition, SLO required more time for students to practice.</i></p>	No. of students	Score	Comment	4	69 or lower	failed	8	70 or better	passed
No. of students	Score	Comment											
4	69 or lower	failed											
8	70 or better	passed											
4. Calculate and perform RCL Circuit troubleshooting	4	I,D	4,7	<p>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below:</p>									

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4	69 or lower	failed											
8	70 or better	passed											
5. Demonstrate transformer action and relays and electrical circuit.	3,4	D	7	<p>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below:</p> <table border="1"> <thead> <tr> <th>No. of students</th> <th>Score</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>69 or lower</td> <td>failed</td> </tr> <tr> <td>10</td> <td>70 or better</td> <td>passed</td> </tr> </tbody> </table> <p>83% of the students passed this SLO.</p> <p>Observation: Contributing factors for low scores were due to poor English skills, poor math skills, and the lack of studying. Due to the pace of the class, most parts of hands-on experimentation were not delivered because of needed additional time spent on theoretical concept and circuit calculation.</p>	No. of students	Score	Comment	2	69 or lower	failed	10	70 or better	passed
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I – Introduced, D – Developing, M - Mastery

FINAL GRADES:

A = 1 B = 5 C = 4 D = 0 F = 2

Recommendations:

*To improve fundamental knowledge and practical hands-on skills, utilize **more** circuit construction activities with bread-boarding techniques, in which will allow students to design, construct, analyze (calculation and measurement), and perform basic troubleshooting skills on series and parallel circuits.*

Signature: (Sgd.) **Cirilo B. Recana**
Instructor

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