

Review of Performance: VEE 110/P1 Discrete Devices I  
 Submitted by: Cirilo Recana

No. of Student: 14  
 Semesters: Spring 2014

**Institutional Student Learning Outcomes (ISLO'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.
- 7. Identify and interpret basic solid state (electronics) symbols and circuits schematics commonly found in the electrical industry.**
8. Analyze circuit operation on basic motors.
9. Perform basic troubleshooting on basic motors.
10. Install and perform basic maintenance on air-conditioning units.
11. Interpret and install circuits according to rules and regulations of the National Electrical Code book.
12. Install and analyze basic motor control circuits.

SLO#	PLO	I, D, M	ISLO	Reflection/Comment									
SLO#1 Describe semiconductor diode parameters, operation and testing.	3, 7	I (introduced level)	3	<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>12</td> <td>70 or better</td> <td>Passed</td> </tr> </tbody> </table>	No. of students	Score	Comment	2	69 or lower	Failed	12	70 or better	Passed
No. of students	Score	Comment											
2	69 or lower	Failed											
12	70 or better	Passed											

				14% failed, 86% passed									
SLO#2 Familiarize in bipolar transistor parameters, operation and testing.	3, 7	I,D (introduced and demonstrate level)	3	<p>SLO was assessed by written test and hands-on experimentation 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>1</td> <td>69 or lower</td> <td>Failed</td> </tr> <tr> <td>13</td> <td>70 or better</td> <td>Passed</td> </tr> </tbody> </table> <p>7% failed, 93% passed</p>	No. of students	Score	Comment	1	69 or lower	Failed	13	70 or better	Passed
No. of students	Score	Comment											
1	69 or lower	Failed											
13	70 or better	Passed											
SLO#3 Recognize field effect transistor (FET) parameters, operation and testing.	3, 7	I,D (introduced and demonstrate level)	3	<p>SLO was assessed by written test and hands-on experimentation 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>11</td> <td>70 or better</td> <td>Passed</td> </tr> </tbody> </table> <p>21% failed, 79% passed</p>	No. of students	Score	Comment	3	69 or lower	Failed	11	70 or better	Passed
No. of students	Score	Comment											
3	69 or lower	Failed											
11	70 or better	Passed											
SLO#4 Describe metal oxide field effect transistor (MOSFET) parameters, operation and testing.	3, 7	D (demonstrate level)	3	<p>SLO was assessed by written test and hands-on experimentation 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>12</td> <td>70 or better</td> <td>Passed</td> </tr> </tbody> </table> <p>14% failed, 86% passed</p>	No. of students	Score	Comment	2	69 or lower	Failed	12	70 or better	Passed
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12	70 or better	Passed											
SLO #5 Observe DC power supply operation.	3, 7	I,D (introduced and demonstrate level)	3	<p>SLO was assessed by written test and hands-on experimentation 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> </tbody> </table>	No. of students	Score	Comment	2	69 or lower	Failed			
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				12	70 or better	Passed
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SLO#6 Observe integrated circuit (IC) regulator and voltage doublers operation.	3, 7	I (introduced level)	3	SLO was assessed by written test and hands-on experimentation using the assessment criteria as stated in the course outline. Result of assessment is shown below:		
				No. of students	Score	Comment
				3	69 or lower	Failed
				11	70 or better	Passed
				21% failed, 79% passed		

**Additional observations:** In reference with the data presented above, the last two SLO' was not covered due to class pace and very limited experimental testing equipment and NIDA cards available. But high percentage showed students are interested in combining theoretical and hands-on/laboratory activities.

**FINAL GRADES BREAKDOWN:**

**A = 3      B = 7      C = 3      D = 1      F = 0**

**Recommendations:** Additional laboratory equipments such as analog and digital multi-meter and oscilloscope must be provided so that lab exercises will be well performed by the students per lesson. It is suggested that at least a maximum of 15 students per class with a 1:3 lab equipment ratios.

A modification of the SLO's is suggested to a minimal number to be achievable every semester and be combined with VEE 222 as one course for Building Technology students.

Signature: **Cirilo B. Recana**  
Electrical Instructor

Date Submitted: May 2014