Review of Performance: VEE 222 Discrete Devices II
Submitted by: Cirilo Recana

No. of Student: 13
Semesters: Fall 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.

<table>
<tr><th>SLO#</th><th>PLO</th><th>I, D, M</th><th>ISLO</th><th>Reflection/Comment</th></tr>
<tr><td>SLO#1 Describe the purpose and operation of Unijunction Transistor (UJT) and Silicon Controlled Rectifier (SCR).</td><td>4, 7</td><td>I (introduced level)</td><td>3</td><td>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below:
<table>
<tr><th>No. of students</th><th>Score</th><th>Comment</th></tr>
<tr><td>3</td><td>69 or lower</td><td>Failed</td></tr>
<tr><td>10</td><td>70 or better</td><td>Passed</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td></td><td>77% of the students passed</td></tr>
<tr><td>SLO#2 Describe UJT oscillator circuit operation.</td><td>4, 7</td><td>I,D (introduced and demonstrate level)</td><td>3</td><td>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below:
<table><tr><td>No. of students</td><td>Score</td><td>Comment</td></tr><tr><td>2</td><td>69 or lower</td><td>Failed</td></tr><tr><td>11</td><td>70 or better</td><td>Passed</td></tr></table>85% of the students passed</td></tr>
<tr><td>SLO#3 Describe SCR trigger circuit operation.</td><td>4, 7</td><td>I,D (introduced and demonstrate level)</td><td>3</td><td>SLO was assessed by written and practical experimentation using the assessment criteria as stated in the course outline. Result of assessment is shown below:
<table><tr><td>No. of students</td><td>Score</td><td>Comment</td></tr><tr><td>1</td><td>69 or lower</td><td>Failed</td></tr><tr><td>12</td><td>70 or better</td><td>Passed</td></tr></table>92% of the students passed</td></tr>
<tr><td>SLO#4 Describe SCR power control operation.</td><td>4, 7</td><td>D (demonstrate level)</td><td>3</td><td>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below:
<table><tr><td>No. of students</td><td>Score</td><td>Comment</td></tr><tr><td>1</td><td>69 or lower</td><td>Failed</td></tr><tr><td>12</td><td>70 or better</td><td>Passed</td></tr></table>92% of the students passed</td></tr>
<tr><td>SLO#5 Identify the relationship among Triac, SCRs , Diac and four-layered devices.</td><td>4, 7</td><td>I,D (introduced and demonstrate level)</td><td>3</td><td>SLO was assessed by written test and practical experimentation using the assessment criteria as stated in the course outline. Result of assessment is shown below:
<table><tr><td>No. of students</td><td>Score</td><td>Comment</td></tr><tr><td>3</td><td>69 or lower</td><td>Failed</td></tr></table></td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td></td><td><table><tr><td>10</td><td>70 or better</td><td>Passed</td></tr></table>77% of the students passed</td></tr>
<tr><td>SLO#6 Describe the construction, operation and application of Programmable Unijuction Transistor (PUT).</td><td>4, 7</td><td>I,D (introduced and demonstrate level)</td><td>3</td><td>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below:<table><tr><td>No. of students</td><td>Score</td><td>Comment</td></tr><tr><td>3</td><td>69 or lower</td><td>Failed</td></tr><tr><td>10</td><td>70 or better</td><td>Passed</td></tr></table>77% of the students passed</td></tr>
</table>

Additional observations: In reference with the data presented above, high percentage showed students are highly interested in hands-on experimentation or class activities.

STUDENTS FINAL GRADES BREAKDOWN:
A = 4 **B** = 4 **C** = 2 **D** = 2 **F** = 1

Recommendations: Laboratory equipments (NIDA cards) for discrete devices II must be enough for at least 3 to 5 sets to be able for the students to perform their required experimentation. Additional quality analog multi-meter and oscilloscope must also be purchase so that more hands on experimentation can be done.

Modify and combine discrete devices I & II course into one course for electrical students use so that it focus only on discrete devices that are needed in the electrical controls.

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

Date Submitted: December 2014