

**Review of Performance:** VTE 280 Telephone System Spring 2016, (16 students)  
**Submitted by:** Danilo S. Ibarrola

**Institutional Student Learning Outcomes (ISLO):**

- ILO1:** Effective oral communication.
- ILO2:** Effective written communication.
- ILO3:** Critical Thinking
- ILO4:** Problem Solving
- ILO5:** Inter-cultural knowledge and competence.
- ILO6:** Information literacy.
- ILO7:** Foundations and skills for life-long learning.
- ILO8:** Quantitative reasoning.

**Program Learning Outcomes (PLO)**

- PLO1:** Practice Safety and occupational health procedures in the workplace.
- PLO2:** Use electronic tools and test equipment competently.
- PLO3:** Interpret schematic diagrams and waveforms.
- PLO4:** Build electronic projects to a given specification.
- PLO5:** Practice a career in the Telecom Industry.
- PLO6:** Troubleshoot microwave, fiber optics, radio communication and telephone system.

SLO#	Program SLO#	I, D, M	ISLO	Reflection/Comment												
1. Describe the major sections of the basic elements in a telephone system.	Troubleshoot microwave, fiber optics, radio communication and telephone system.	M	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> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>69 or lower</td> <td>Failed</td> <td>6.25 %</td> </tr> <tr> <td>15</td> <td>70 or better</td> <td>Passed</td> <td>93.75 %</td> </tr> </tbody> </table> <p>Students need more time in hands-on and other practical procedure to reach mastery level performance.</p>	No. of Students	Score	Comment	Percentage	1	69 or lower	Failed	6.25 %	15	70 or better	Passed	93.75 %
No. of Students	Score	Comment	Percentage													
1	69 or lower	Failed	6.25 %													
15	70 or better	Passed	93.75 %													

2. Describe the telephone system used in the U.S and the F.S.M.	Troubleshoot microwave, fiber optics, radio communication and telephone system.	M	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" data-bbox="1026 415 1885 529"> <thead> <tr> <th>No. of Students</th> <th>Score</th> <th>Comment</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>69 or lower</td> <td>Failed</td> <td>18.75 %</td> </tr> <tr> <td>13</td> <td>70 or better</td> <td>Passed</td> <td>81.25 %</td> </tr> </tbody> </table> <p>Students need more time in hands-on and other practical procedure to reach mastery level performance.</p>	No. of Students	Score	Comment	Percentage	3	69 or lower	Failed	18.75 %	13	70 or better	Passed	81.25 %
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3	69 or lower	Failed	18.75 %													
13	70 or better	Passed	81.25 %													
3. Describe and troubleshoot the operations of the mechanical and electronic telephone sets.	Troubleshoot microwave, fiber optics, radio communication and telephone system.	M	7	<p>SLO was assessed using hands-on troubleshooting and written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below:</p> <table border="1" data-bbox="1026 813 1885 927"> <thead> <tr> <th>No. of Students</th> <th>Score</th> <th>Comment</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>69 or lower</td> <td>Failed</td> <td>25 %</td> </tr> <tr> <td>12</td> <td>70 or better</td> <td>Passed</td> <td>75 %</td> </tr> </tbody> </table> <p>Students need more time in hands-on and other practical procedure to reach mastery level performance.</p>	No. of Students	Score	Comment	Percentage	4	69 or lower	Failed	25 %	12	70 or better	Passed	75 %
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4	69 or lower	Failed	25 %													
12	70 or better	Passed	75 %													
4. Describe and demonstrate the two methods of signal processing and the types of connection links that are commonly used in today's telephone system.	Troubleshoot microwave, fiber optics, radio communication and telephone system.	M	7	<p>SLO was assessed using hands-on troubleshooting and written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below:</p> <table border="1" data-bbox="1026 1247 1885 1360"> <thead> <tr> <th>No. of Students</th> <th>Score</th> <th>Comment</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>69 or lower</td> <td>Failed</td> <td>0 %</td> </tr> <tr> <td>16</td> <td>70 or better</td> <td>Passed</td> <td>100 %</td> </tr> </tbody> </table>	No. of Students	Score	Comment	Percentage	0	69 or lower	Failed	0 %	16	70 or better	Passed	100 %
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5. Describe cellular telephone from a theoretical and hardware perspective.	Troubleshoot microwave, fiber optics, radio communication and telephone system.	M	7	<p>SLO was assessed using hands-on troubleshooting and 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> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>69 or lower</td> <td>Failed</td> <td>0 %</td> </tr> <tr> <td>16</td> <td>70 or better</td> <td>Passed</td> <td>100 %</td> </tr> </tbody> </table> <p>Students need more time in hands-on and other practical procedure to reach mastery level performance.</p>	No. of Students	Score	Comment	Percentage	0	69 or lower	Failed	0 %	16	70 or better	Passed	100 %
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**Special comments:** 16 out of 16 or 100% of the students got a grade of C and higher.

**Summary of Grades:**

**A+ = 0**  
**A = 0**  
**A- = 4**  
**B+ = 6**  
**B = 1**  
**B- = 2**  
**C+ = 3**  
**C = 0**  
**C- = 0**  
**F = 0**

**Recommendations:** Laboratory equipment (NIDA cards) for Telephone System must be enough for at least 3 to 5 sets to be able for the students to perform their required experiments. Telephone sets (mechanical and electronics) and phone simulator tone generator equipment are needed to enhance the knowledge and skills of the students in the current trends in modern telecommunication and to facilitate wired and wireless phone troubleshooting.

Signature:      DANILO S. IBARROLA  
                          Instructor

**Date:** May 6, 2016