

**Review of Performance:** VTE 270 Telecommunication Systems 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 basic fundamentals of a telecom system.	Interpret schematic diagrams and waveforms.	D	7	<p>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Students are more interested to see the actual telecommunication system in actual application 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>2</td> <td>69 or lower</td> <td>Failed</td> <td>12.5 %</td> </tr> <tr> <td>14</td> <td>70 or better</td> <td>Passed</td> <td>87.5 %</td> </tr> </tbody> </table>	No. of Students	Score	Comment	Percentage	2	69 or lower	Failed	12.5 %	14	70 or better	Passed	87.5 %
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				Students need more time in hands-on and other practical procedure to reach mastery level performance.												
2. Describe the various types of connection links used by industry for telecommunication system worldwide.	Interpret schematic diagrams and waveforms.	D	7	<p>SLO was assessed using hands-on experiment and written test questions using the assessment criteria as stated in the course outline. Students are more interested when they saw and touch the actual connection link used in telecommunication. 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>2</td> <td>69 or lower</td> <td>Failed</td> <td>12.5 %</td> </tr> <tr> <td>14</td> <td>70 or better</td> <td>Passed</td> <td>87.5 %</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	2	69 or lower	Failed	12.5 %	14	70 or better	Passed	87.5 %
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2	69 or lower	Failed	12.5 %													
14	70 or better	Passed	87.5 %													
3. Describe the common switching operations found in the telecommunications industry.	Interpret schematic diagrams and waveforms.	M	7	<p>SLO was assessed using hands-on experiment 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>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 %													
4. Describe the different types of broadcast systems commonly used	Interpret schematic	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>												

in industry and government.	diagrams and waveforms.			<table border="1" data-bbox="1024 256 1885 370"> <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 data-bbox="1024 410 1915 475">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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0	69 or lower	Failed	0 %													
16	70 or better	Passed	100 %													
5. Define spread spectrum modulation and describe its general purpose and its application.	Interpret schematic diagrams and waveforms.	M	7	<p data-bbox="1024 521 1915 654">SLO was assessed using hands-on experiment and written test questions using the assessment criteria as stated in the course outline. Students were able to describe how multiple signals can be sent in one communication medium. Result of assessment is shown below:</p> <table border="1" data-bbox="1024 691 1885 805"> <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 data-bbox="1024 846 1915 911">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 %													
6. Describe the basic operating principles of wired, wireless computer network and satellite system.	Interpret schematic diagrams and waveforms.	M	7	<p data-bbox="1024 954 1915 1088">SLO was assessed using hands-on experiment and written test questions using the assessment criteria as stated in the course outline. Students understood the different topology and hardware in computer and communication network. Result of assessment is shown below:</p> <table border="1" data-bbox="1024 1125 1885 1239"> <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 data-bbox="1024 1279 1915 1344">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:**

<b>A+</b>	<b>=</b>	<b>0</b>
<b>A</b>	<b>=</b>	<b>0</b>
<b>A-</b>	<b>=</b>	<b>1</b>
<b>B+</b>	<b>=</b>	<b>5</b>
<b>B</b>	<b>=</b>	<b>5</b>
<b>B-</b>	<b>=</b>	<b>1</b>
<b>C+</b>	<b>=</b>	<b>1</b>
<b>C</b>	<b>=</b>	<b>3</b>
<b>C-</b>	<b>=</b>	<b>0</b>
<b>F</b>	<b>=</b>	<b>0</b>

**Recommendations** Annual visit to telecommunications partners is necessary for the students to fully understand the actual devices functions, connections and actual operations in the field.

Signature:      **DANILO S. IBARROLA**  
                         Instructor

**Date:** May 6, 2016