

# Assessment: Course Four Column

Spring/Summer 2017



## El Camino: Course SLOs (IND) - Electronics and Computer Hardware Technology

### ECC: ECHT 122:Semiconductor Circuits II

Course SLOs	Assessment Method Description	Results	Actions
<p><b>SLO #1 Advanced In-Circuit Measurements</b> - The student will make advanced "in-circuit" measurements using Bench and Portable Digital Multimeter (DMM), Oscilloscope, and Voltage Ohm (VOM), Milliamp Meter on Solid-State-Systems</p> <p><b>Course SLO Status:</b> Active</p> <p><b>Course SLO Assessment Cycle:</b> 2016-17 (Spring 2017), 2018-19 (Spring 2019)</p> <p><b>Input Date:</b> 11/12/2013</p> <p><b>Inactive Date:</b></p> <p><b>Comments::</b></p>	<p><b>Laboratory Project/Report</b> - Using a lab the requires both Scope and DMM measurements, students must measure and record the data correctly.</p> <p><b>Standard and Target for Success:</b> 75% of the students must be able to do this correctly without help.</p> <p><b>Additional Information:</b></p>	<p><b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017)</p> <p><b>Standard Met?</b> : Standard Not Met</p> <p>Of the ten teams of students, 6 out of ten were able to perform the task correctly and without help.</p> <p>The 4 teams that did not do this correctly were able to make the measurements, but had problems in recording the correct units. In these cases they failed to record the parameter being measured and unit measure used with the measurement. For example , Milli-seconds and Micro-seconds. (04/19/2017)</p> <p><b>% of Success for this SLO:</b></p> <p><b>Faculty Assessment Leader:</b> Robert (Bob) Diaz</p> <p><b>Faculty Contributing to Assessment:</b></p>	<p><b>Action:</b> Begin every advanced class with a one week review of basic electronics. (06/15/2018)</p> <p><b>Action Category:</b> Teaching Strategies</p>
<p><b>SLO #2 Field Effect Amplifier</b> - Given a schematic diagram of a basic Field Effect Amplifier, the students will be able to assemble, test and measure the circuit for its operational parameters.</p> <p><b>Course SLO Status:</b> Active</p> <p><b>Course SLO Assessment Cycle:</b> 2016-17 (Spring 2017), 2018-19 (Spring 2019)</p> <p><b>Input Date:</b> 11/12/2013</p> <p><b>Inactive Date:</b></p> <p><b>Comments:</b></p>	<p><b>Laboratory Project/Report</b> - Given a schematic for a basic FET amplifier circuit students must be able to assemble, test, and measure the circuit's parameters.</p> <p><b>Standard and Target for Success:</b> 75% of the teams should be able to do this without needing help.</p> <p><b>Additional Information:</b></p>	<p><b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017)</p> <p><b>Standard Met?</b> : Standard Not Met</p> <p>Of the 10 teams only 6 of them were able to do this without needing help. (05/09/2017)</p> <p><b>% of Success for this SLO:</b></p> <p><b>Faculty Assessment Leader:</b> Robert (Bob) Diaz</p> <p><b>Faculty Contributing to Assessment:</b></p>	<p><b>Action:</b> Include a basic electronics review at the start of each advanced class. (06/15/2018)</p> <p><b>Action Category:</b> Teaching Strategies</p>

# ECC: ECHT 140:Computer Systems and Hardware Technology I

Course SLOs	Assessment Method Description	Results	Actions
<b>SLO #1 Course Notebook Students -</b> The students will assemble and maintain a five-section course notebook. <b>Course SLO Status:</b> Active <b>Course SLO Assessment Cycle:</b> 2016-17 (Spring 2017) <b>Input Date:</b> 11/12/2013 <b>Inactive Date:</b> <b>Comments::</b>	<b>Multiple Assessments -</b> It is expected that 80% of the students will score 18 or above per notebook review evaluation for this SLO. Based on Rubric: 20 items expected to be assessed (3) Students achieved a Full Mastery level, will identify 100-90%, through instructor's review for content and accuracy  (2) Students achieved a Partial Mastery level, will identify 89-70%, (17.5-14 items through instructor's review for content and accuracy  (3) Students achieved a Non Mastery level, will be able to identify 69-0%, (13.5 -0 items) through instructor's review for content and accuracy  <b>Standard and Target for Success:</b> It is expected that 80% of the students will score 18 or above per notebook review evaluation for this SLO.  <b>Additional Information:</b> <b>Related Documents:</b> <a href="#">ECHT 140 SLO 2 #Component</a>	<b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017) <b>Standard Met? :</b> Standard Met N= 13  7/13 3 Students achieved a Full Mastery level, 100-90%, ) content and accuracy  5/13 2 Students achieved a Partial Mastery level, 89-70%, content and accuracy  1/33 1 Students achieved a Non Mastery level, 69-0, content and accuracy  (06/05/2017) <b>% of Success for this SLO:</b> <b>Faculty Assessment Leader:</b> Steve Cocca <b>Faculty Contributing to Assessment:</b>	<b>Action:</b> Develop a reproducible template that students will use to ensure notebook consistency (05/17/2018) <b>Action Category:</b> Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	<a href="#">Handling Techniques.doc</a>		
<b>SLO #2 Component Handling Techniques</b> - The student will be able to demonstrate their knowledge in proper component handling techniques, especially regarding (ESD), Electrostatic Discharge. <b>Course SLO Status:</b> Active <b>Course SLO Assessment Cycle:</b> 2016-17 (Spring 2017) <b>Input Date:</b> 11/12/2013 <b>Inactive Date:</b> <b>Comments::</b>	<b>Exam/Test/Quiz</b> - The student will demonstrate their knowledge of an ESD/EOS safe work area is to prevent damage to sensitive components from spikes and static discharges. These areas must be designed and maintained to prevent ESD/EOS damage. <b>Standard and Target for Success:</b> Based on Percentages: "It is expected that 85% of students will score 75% or above on this SLO. Based on Rubric: "It is expected that X% of students will score 4 or above on this SLO." Mastery Level 3 (100-85 %) Assignment/Assessment possible)  Students demonstrate their knowledge of an ESD/EOS safe work area is to prevent damage to sensitive components by answering 15-13 questions correctly out of 15  Partial Mastery Level 3 (84-70 %) Assignment/Assessment possible)  Students demonstrate their knowledge of an ESD/EOS safe work area is to prevent damage to sensitive components by answering 12-10 questions correctly out of 15  Non Mastery Level 3 (69-0 %) Assignment/Assessment possible)	<b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017) <b>Standard Met?</b> : Standard Met Based on Percentages: "It is expected that 85% of students will score 75% or above on this SLO. Based on Rubric: "It is expected that X% of students will score 4 or above on this SLO."  Mastery Level 3 (100-85 %) Assignment/Assessment possible)Students demonstrate their knowledge of an ESD/EOS safe work area is to prevent damage to sensitive components by answering 15-13 questions correctly out of 15  Partial Mastery Level 3 (84-70 %) Assignment/Assessment possible)Students demonstrate their knowledge of an ESD/EOS safe work area is to prevent damage to sensitive components by answering 12-10 questions correctly out of 15  Non Mastery Level 3 (69-0 %) Assignment/Assessment possible)Students demonstrate their knowledge of an ESD/EOS safe work area is to prevent damage to sensitive components by answering 9-0 questions correctly out of 15  (06/04/2017) <b>% of Success for this SLO:</b> <b>Faculty Assessment Leader:</b> Steve Cocca <b>Faculty Contributing to Assessment:</b>	<b>Action:</b> The college needs to purchase and install ESD equipment and furniture to be used in all ECHT,ESD sensitive areas (05/14/2020) <b>Action Category:</b> Program/College Support
	<b>Additional Information:</b>		

Course SLOs	Assessment Method Description	Results	Actions
<p><b>SLO #3 Computer Estimate and Configuration</b> - The student will be able to demonstrate their ability to cost out and configure either a Business or "Gaming" Computer per customer specifications.</p> <p><b>Course SLO Status:</b> Active</p> <p><b>Course SLO Assessment Cycle:</b> 2016-17 (Spring 2017)</p> <p><b>Input Date:</b> 11/12/2013</p> <p><b>Inactive Date:</b></p> <p><b>Comments::</b></p>	<p><b>Laboratory Project/Report -</b> Students, will research various computer components and configurations to build either a gaming or business computer system a per specification with a \$5,000 US dollar budget.</p> <p><b>Standard and Target for Success:</b> It is expected that 80% of the students will score 2 or above this SLO.</p> <p>Based on Rubric: 20 items expected to be assessed</p> <p>(3) Students achieved a Full Mastery level, will identify 100-90%, (20-18 items) various computer components to use in building a specific pc type as required, within budget</p> <p>(2) Students achieved a Partial Mastery level, will identify 89-70%, (17.5-14 items) various computer components to use in building a specific pc type as required, within budget</p> <p>(3) Students achieved a Non Mastery level, will be able to identify 69-0%, (13.5 -0 items) various computer components to use in building a specific pc type as required, within budget</p>	<p><b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017)</p> <p><b>Standard Met? :</b> Standard Not Met N= 13</p> <p>3/20 3 Students achieved a Full Mastery level, 100-90%, will identify various computer parts and build a specific pc type as required, within budget.</p> <p>5/1 2 Students achieved a Partial Mastery level, 89-70%, will identify various computer parts and build a specific pc type as required, within budget</p> <p>6/5 1 Students achieved a Non Mastery level, 69-0, will identify various computer parts and build and build a specific pc type as required, within budget</p> <p>(06/04/2017)</p> <p><b>% of Success for this SLO:</b></p> <p><b>Faculty Assessment Leader:</b> Steve Cocca</p> <p><b>Faculty Contributing to Assessment:</b></p>	<p><b>Action:</b> Have students present and defend their system specifications in front of their peers Spring 2018 Teaching Strategies (05/14/2018)</p> <p><b>Action Category:</b> Teaching Strategies</p>
<b>Additional Information:</b>			

# ECC: ECHT 144:CompTIA A+ Certification Preparation for Computer Hardware Systems

<i>Course SLOs</i>	<i>Assessment Method Description</i>	<i>Results</i>	<i>Actions</i>
<b>SLO #1 Course Notebook</b> - The students will assemble and maintain a five-section course notebook. <b>Course SLO Status:</b> Active <b>Course SLO Assessment Cycle:</b> 2016-17 (Spring 2017) <b>Input Date:</b> 11/12/2013 <b>Inactive Date:</b> <b>Comments::</b>	<b>Multiple Assessments</b> - Students, will prepare and submit for evaluation a "5" section notebook to be used for both quizzes and test. The students' notebook evaluation will be based on content and accuracy  <b>Standard and Target for Success:</b> It is expected that 80% of the students will score 18 or above per notebook review evaluation <b>Additional Information:</b>	<b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017) <b>Standard Met? :</b> Standard Met N= 17  13/20 3 Students achieved a Full Mastery level, 100-90%, ) content and accuracy  3/1 2 Students achieved a Partial Mastery level, 89-70%, content and accuracy  1/5 1 Students achieved a Non Mastery level, 69-0, content and accuracy (06/04/2017) <b>% of Success for this SLO:</b> <b>Faculty Assessment Leader:</b> Steve Cocca <b>Faculty Contributing to Assessment:</b>	<b>Action:</b> Develop a reproducible template that students will use to ensure notebook consistency (05/14/2018) <b>Action Category:</b> Teaching Strategies
<b>SLO #2 CompTIA Industry Certification</b> - The student will acquire a knowledge base to prepare to take the A+ Certification Exam through CompTIA, an industry recognized certification. <b>Course SLO Status:</b> Active <b>Course SLO Assessment Cycle:</b> 2016-17 (Spring 2017) <b>Input Date:</b> 11/12/2013 <b>Inactive Date:</b> <b>Comments::</b>	<b>Laboratory Project/Report -</b> Students, will be given desktop PC where an examination of their knowledge will be assessed in the identification of systems components and hardware, and describe proper installation techniques required to build and maintain a desktop PC <b>Standard and Target for Success:</b> It is expected that 80% of students will score 2 or above on this SLO. <b>Additional Information:</b>	<b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017) <b>Standard Met? :</b> Standard Met N= 13  11/13 3 Students achieved a Full Mastery level, 100-90%, will identify to component level and describe proper installation techniques required to build and maintain a desktop PC  1/13 2 Students achieved a Partial Mastery level, 89-70%, will identify to component level and describe proper installation techniques required to build and maintain a desktop PC  1/13 1 Students achieved a Non Mastery level, 69-0%,	<b>Action:</b> Provide students with more outside lab time to help reinforce areas of student deficiencies. Spring 2018 Progrsm/College (05/14/2018) <b>Action Category:</b> Program/College Support

Course SLOs	Assessment Method Description	Results	Actions
		<p>will identify to component level and describe proper installation techniques required to build and maintain a desktop PC</p> <p>(06/04/2017)</p> <p><b>% of Success for this SLO:</b></p> <p><b>Faculty Assessment Leader:</b> Steve Cocca</p> <p><b>Faculty Contributing to Assessment:</b></p>	
<p><b>SLO #3 Electricity &amp; Electronics</b> - The student will acquire a knowledge in safety and the basics of electricity and electronics, micro-computer hardware and components.</p> <p><b>Course SLO Status:</b> Active</p> <p><b>Course SLO Assessment Cycle:</b> 2016-17 (Spring 2017)</p> <p><b>Input Date:</b> 11/12/2013</p> <p><b>Inactive Date:</b></p> <p><b>Comments::</b></p>	<p><b>Exam/Test/Quiz</b> - The student will demonstrate and apply their basic knowledge of electronics as it pertains to a computer service technical environment</p> <p><b>Standard and Target for Success:</b></p> <p>Standard and Target for Success: 85% (21 out of 25 items correct)</p> <p><b>Additional Information:</b></p>	<p><b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017)</p> <p><b>Standard Met? :</b> Standard Met</p> <p>N= 17</p> <p>13/17    Mastery Level 3 (100-85 %) Assignment/Assessment possible)Students demonstrate a “Mastery” of their knowledge and apply their basic knowledge of electronics as it pertains to a computer service technical environment by answering 25-21 questions correctly out of 25</p> <p>2/17    Partial Mastery Level 3 (84-70 %) Assignment/Assessment possible)Students “Partially Master” demonstrate their knowledge and apply their basic knowledge of electronics as it pertains to a computer service technical environment by answering 20-18 questions correctly out of 25</p> <p>2/17    Non Mastery Level 3 (69-0 %) Assignment/Assessment possible S)tudents demonstrate a “Non Mastery” in their knowledge and apply their basic knowledge of electronics as it pertains to a computer service technical environment by answering 17-0 questions correctly out of 25</p>	<p><b>Action:</b> Recommend students take ECHT 11 Prior to taking ECHT 144 (05/14/2020)</p> <p><b>Action Category:</b></p> <p>Program/College Support</p>

<i>Course SLOs</i>	<i>Assessment Method Description</i>	<i>Results</i>	<i>Actions</i>
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(06/04/2017)

**% of Success for this SLO:**

**Faculty Assessment Leader:** Steve Cocca

**Faculty Contributing to Assessment:**

**Related Documents:**

[ECHO 144 SLO 3 #Component Handling Techniques.doc](#)

# ECC: ECHT 191:Introduction to Microprocessors and Interfacing

<i>Course SLOs</i>	<i>Assessment Method Description</i>	<i>Results</i>	<i>Actions</i>
<b>SLO #1 Machine Assembly Language</b> - Students will demonstrate their knowledge of fundamentals of machine assembly language <b>Course SLO Status:</b> Active <b>Course SLO Assessment Cycle:</b> 2014-15 (Summer 2015), 2016-17 (Spring 2017) <b>Input Date:</b> 11/12/2013 <b>Inactive Date:</b> <b>Comments::</b>	<b>Laboratory Project/Report</b> - Given a schematic and description of the problem, students will build the circuit and write code to preform the function. <b>Standard and Target for Success:</b> The hardware and software must work as specified: Students complete the task correctly without any help, level 4, 70% of the students meet this standard.  <b>Additional Information:</b>	<b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017) <b>Standard Met?</b> : Standard Not Met Of the 12 teams doing this assignment, 6 were able to do this without any help and 6 needed additional help. (05/09/2017) <b>% of Success for this SLO:</b> <b>Faculty Assessment Leader:</b> Ro <b>Faculty Contributing to Assessment:</b>	<b>Action:</b> Include a summery of instructions required to do the task and a summery of how to program the board. (06/15/2018) <b>Action Category:</b> Teaching Strategies
<b>SLO #2 Digital &amp; Analog Interfacing -</b> Students will demonstrate their use of software to simulate hardware and digital and analog interfacing. <b>Course SLO Status:</b> Active <b>Course SLO Assessment Cycle:</b> 2013-14 (Spring 2014), 2014-15 (Summer 2015), 2016-17 (Spring 2017) <b>Input Date:</b> 11/12/2013 <b>Inactive Date:</b> <b>Comments::</b>	<b>Laboratory Project/Report</b> - Given a software and hardware problem, the students must correctly build the hardware and write the code to make the hardware work correctly. <b>Standard and Target for Success:</b> The hardware and software must work as specified: Students are able to complete the task correctly without any help, level 4. 70% of the students must meet this level. Students need a minor amount of help or hints to complete the task, level 3. 80% of the students must meet this level or a higher level. Students need a major amount of help to complete the task, level 2. 100% of the students must meet this level. Even with help, students quit or are unable to do the task, level 1. No student should meet this level.	<b>Semester and Year Assessment Conducted:</b> 2016-17 (Spring 2017) <b>Standard Met?</b> : Standard Met Of the 12 teams 9 were able to do this without requiring any additional help. Three teams required minor help. (04/11/2017) <b>% of Success for this SLO:</b> <b>Faculty Assessment Leader:</b> Robert (Bob) Diaz <b>Faculty Contributing to Assessment:</b>	<b>Action:</b> Add summery of instructions needed for lab and a summery of how to use the software interface. (06/29/2018) <b>Action Category:</b> Teaching Strategies



Course SLOs	Assessment Method Description	Results	Actions
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**Additional Information:** Because there's more than one way of writing correct code, any solution that correctly does the task is considered successful.

**SLO #3 Microprocessors and Microcontrollers** - Students will demonstrate their knowledge of microprocessors and microcontrollers as they relate to industrial and consumer equipment.  
**Course SLO Status:** Active  
**Course SLO Assessment Cycle:** 2014-15 (Summer 2015), 2016-17 (Spring 2017)  
**Input Date:** 11/12/2013  
**Inactive Date:**  
**Comments::**

**Exam/Test/Quiz** - Given a written multiple choice test, students will answer the questions to the best of their abilities.  
**Standard and Target for Success:**  
 Students are able to pass the test with an 90% or higher; level 4, mastery level. Minimum of 60% of the class should meet this level.  
 Students are able to pass the test with an 80% or higher; level 3, strong understanding. Minimum of 70% of the class should meet this level or get a higher level.  
 Students are able to pass the test with an 70% or higher; level 2, basic understanding. Minimum of 80% of the class should meet this level or get a higher level.  
 Students are unable to pass with a 70% or higher; level 1, fell shot of understanding. Maximum of 20% of the class should be at this level.

**Additional Information:**

**Semester and Year Assessment Conducted:** 2016-17 (Spring 2017)  
**Standard Met?** : Standard Not Met  
 Of the 22 students in the class, 9 passed (41%) Test #1 with 90% or higher, 18 passed (82%) with a score of 80% or higher, 20 passed (91%) with a score of 70% or higher. Thus the A students were not as high as I hoped for, but the B and C students did meet my expectations.  
 (06/08/2017)  
**% of Success for this SLO:**  
**Faculty Assessment Leader:** Robert (Bob) Diaz  
**Faculty Contributing to Assessment:**

**Action:** Expand and rewrite the study notes for the class.  
 (07/02/2018)  
**Action Category:** Teaching Strategies