## Assessment: Assessment Unit Four Column

### FALL 2015

### El Camino: PLOs (IND) - Air Conditioning and Refrigeration

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| **PLO #1 Safety Knowledge and Skills** - Students successfully completing air conditioning and refrigeration program, whether in the certificate program or degree program, will acquire and be able to use specific safety knowledge and skills relating to the air conditioning and refrigeration discipline and will be able to apply those skills to specific job requirements.  
**PLO Status:** Active  
**PLO Assessment Cycle:** 2013-14 (Fall 2013), 2015-16 (Fall 2015)  
**Input Date:** 07/01/2013  
**Presentation/Skill Demonstration** - Students will be given a wide variety of assignments that prepare students to performer industry related tasks in a safe, responsible, and effective way. Instructors will assign a single or group of student’s tasks. Upon completion of the assigned tasks the instructor will assess performance based on how well students performed based on instructor provided task guidelines.  
**Standard and Rubric:** Student success is based on instructor skill assessment and student task completion based on instructor provided rubric for the particular task or tasks.  
**Reviewer’s Comments:** How well a student performs in the lab. is directly linked to student and instructor task management.  
**Semester of Current Assessment:** 2015-16 (Fall 2015)  
**Standard Met:** Students were given the task creating a basic power and control circuit using both 24 VAC and 120VAC in both control and load circuits. Students first developed a diagram based on instructor provided criteria. Each student worked in a team to develop, install, and test the completed circuit. Student success was based on the functioning of both the control and load circuits and the student’s ability to explain circuit function, logic, and validation procedures. 80% of the students required several attempts to complete the assignment. The 20 percent that successful completed the assignment required some level of refinement of their processes and procedures to go on to the next assignment. By the end of the course 95% of the students had acquired the basic skills necessary to meet basic industry standards for the assigned tasks.  
**Faculty Assessment Leader:** Timothy Muckey  
**Courses Associated with PLO Assessment:** ACRS  
**Reviewer’s Comments:** Student success in electrical systems is dependent on the amount of time available to practice and the level of instructor support. The HVACR program instructors spend a great deal of time developing hands on trainers and helping student’s performer required tasks to industry standards in a safe and efficient way. Success in practical application is based on exposure and time applied.  
**Action:** Place more emphasis in practical application and hands-on student performance. Student success is based on exposure and time applied.  
**Action Category:** Teaching Strategies |

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**Laboratory Project/Report** -  
Students will complete an Air
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<td>Conditioning system service log recording system operational conditions, calculating superheats, subcooling, system charge, and efficiency. <strong>Standard and Rubric:</strong> 85% of students will score 75% or greater on this PLO <strong>Reviewer's Comments:</strong> This evaluation will provide instructors direction for additional student success factors.</td>
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# Assessment: Assessment Unit Four Column

**FALL 2015**

**El Camino: PLOs (IND) - Automation, Robotics, and Manufacturing (ETEC, MTEC, MTT)**

|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------|-----------------------------|
| **PLO #1 Solving Engineering Problems**       | Students will apply engineering principles to build devices using the 6 simple machines which function together.                                                                                                         | Students were assigned the task. 1 student achieved a '7', 1 student a '6', 1 student a '5' and 1 student a '4'. 6 students did not submit assignments. The target of 75% students achieving a grade better than '5' was not met. It is recommended that more students be encouraged to submit assignments for improvement. (02/25/2014) | Faculty Assessment Leader: Eric Carlson  
Faculty Contributing to Assessment: Eric Carlson  
Courses Associated with PLO Assessment: ETEC 10                                                                                      | 2013-14 (Fall 2013)                                                                                     | Standard Not Met                                                                                   | Standard Not Met                                                                                   |
| Project - Students will apply engineering principles to build devices using the 6 simple machines which function together. Standard and Rubric: Students are given a point for each functioning machine and one point for a device that functions for more than 5 seconds. The target for this assessment is 75% students achieving better than a '5'.  
Reviewer's Comments: No additional comments                                                                                           | 10 students built projects with a lowest outcome of 2 points and one student achieving 8 points; the average was 4.5 points. Students continue to struggle with this project due to their unfamiliarity with hand tools and that is done early in the semester. It is suggested to consider changing the assessment of this PLO such that it covers a broader view of the program and measures later success of the students. (02/08/2016) | Faculty Assessment Leader: Eric Carlson  
Faculty Contributing to Assessment: Eric Carlson  
Courses Associated with PLO Assessment: ETEC 10                                                                                      | Semester of Current Assessment: 2015-16 (Fall 2015)                                                   | Standard Not Met                                                                                   | Standard Not Met                                                                                   |
## Assessment: Assessment Unit Four Column

**FALL 2015**

### El Camino: PLOs (IND) - Automotive Technology

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<td>PLO #1 ASE Certification Test Exam - Given an in class exam, based on readings, classroom discussions and demonstrations, the student will be able to take a Pass/No Pass practice exam, or an official ASE Certification Test exam with a grade equivalent of &quot;pass&quot;.</td>
<td>Exam/Test/Quiz - The students will be provided with an in class ASE style exam based on readings, classroom and lab demonstrations. The students will be able to achieve pass or no pass this exam <strong>Standard and Rubric:</strong> It is expected that 60% to 70% of the students should be able to Pass the ASE style exam. The students who received a No Pass on the exam should be able to achieve a pass on the ASE style exam after further study and review of the subject matter covered by the ASE style exam. It is expected that 80% to 90% of the students who take the ASE style exam a subsequent time should be able to achieve a Pass score on their ASE style exam. <strong>Reviewer's Comments:</strong> Automotive Service Excellence has many areas of certification for the Automotive Repair Technician.</td>
<td>Semester of Current Assessment: 2015-16 (Fall 2015) <strong>Standard Met:</strong> Standard Met The students in Automotive Technology 41 and 16 were provided with an ASE style exams. I had 45 students take the ASE style exam, 78% (38) of the students were able to pass the exam with a C or better, 7 students achieved a D on the exam and 1 student failed the exam. The students who performed below average level would be able to achieve a passing score on a subsequent ASE style exam after diligent review of the course work, lecture notes, required text book information, homework classroom and lab presentations. (03/11/2016) <strong>Faculty Assessment Leader:</strong> HARRY STOCKWELL <strong>Faculty Contributing to Assessment:</strong> NONE <strong>Courses Associated with PLO Assessment:</strong> Automotive Technology 41 and Automotive Technology 16 were used as the basis of this PLO Assessment. <strong>Reviewer's Comments:</strong> Many of the students were surprised as to how well they performed on the ASE Style exam. Many of the students were well prepared, they had had good study habits, they worked in study groups, and achieved their goals of completion of these exams in good standing. Thank You Harry Stockwell</td>
<td><strong>Action:</strong> New equipment meeting ASE and NATEF requirements will help to reinforce the training materials taught in the courses and reinforce the students ability to be successful in achieving their goals acquiring certificates of completion and competency and receiving an Associate Degree. Ultimately the students will use their training to join the workforce and earn a good a good wage. (03/23/2016) <strong>Action Category:</strong> Program/College Support</td>
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<td>PLO Status: Active</td>
<td>PLO Assessment Cycle: 2015-16 (Fall 2015)</td>
<td><strong>Input Date:</strong> 07/01/2013</td>
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**FALL 2015**

### El Camino: PLOs (IND) - Construction Technology

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<td><strong>PLO #1 Safely Operating Industry Tools</strong> - Upon successful completion of the courses in this program, students will be able to identify and safely operate tools commonly used in the construction and/or cabinetmaking industry. <strong>PLO Status:</strong> Active <strong>PLO Assessment Cycle:</strong> 2011-12 (Fall 2011), 2013-14 (Fall 2013), 2015-16 (Fall 2015) <strong>Input Date:</strong> 11/29/2013</td>
<td>Directly related to SLO</td>
<td>Semester of Current Assessment: 2013-14 (Fall 2013) <em>Standard Met: Standard Met</em>  All students participating in the Construction Technology Program are required to successfully complete, with 100% accuracy, a written safety test and demonstrate the operation of equipment following all safety protocol. Before being allowed to operate equipment, all students were required to demonstrate operational proficiency. A success rate of 100% was achieved by students on the written portion of the test. After the first attempt 92% of students passed operational test following comprehensive reviews, 100% success rate was achieved. (02/24/2014) <strong>Faculty Assessment Leader:</strong> Ross Durand, Jack Selph <strong>Faculty Contributing to Assessment:</strong> Ross Durand, Jack Selph <strong>Courses Associated with PLO Assessment:</strong> CTEC: 200,100, 110, 210, 172</td>
<td><em>Performance</em> - Laboratory assignment sheet. Construction Technology yard. Appropriate tools and materials.  <strong>Standard and Rubric:</strong> Safely operate tools: 100% is passing. Accurately operate tools: 85% is passing.</td>
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|      | **Exam/Test/Quiz** - Prior to operation of any power tools in the laboratory, students must first read, research and pass safety tests in the classroom. After completion of written safety tests, students must then satisfy the requirements of safe operation in the laboratory. **Standard and Rubric**: 100% success is required for all students participating in the program. | **Courses Associated with PLO Assessment**: CTEC 100, CTEC 110, CTEC 121, CTEC 122, CTEC 131 and CTEC 132  
**Semester of Current Assessment**: 2015-16 (Fall 2015)  
**Standard Met**: Standard Met  
100% success rate is achieved on the classroom safety quizzes before moving to the laboratory to complete the safety training. Students are all able to operate the tools safely. (02/04/2016)  
**Faculty Assessment Leader**: Ross Durand  
**Faculty Contributing to Assessment**: Jack Selph  
**Courses Associated with PLO Assessment**: All CTEC courses with laboratory work are associated with this PLO assessment | **Action**: As far as safety is concerned, the faculty and staff are diligent in the implementation and adherence to the procedures and protocol in the construction laboratories. The action for his assessment is to continue working with the students in creating a safe work environment. (02/05/2017)  
**Action Category**: Teaching Strategies |
### Assessment: Assessment Unit Four Column

**FALL 2015**

**El Camino: PLOs (IND) - Environmental Technology**

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| **PLO #2 Sustainable Urban Environment** - The student will be able to identify and analyze systems for improvement, and discuss the various issues concerning urban infrastructure and the systems that allow our urban environment to function and thrive in a sustainable and resilient manner.  
PLO Status: Active  
PLO Assessment Cycle: 2015-16 (Fall 2015)  
Input Date: 11/29/2013 | Survey/Focus Group - Interview and survey students’ ability to identify, define and understand the complexities of sustainable energy. | Semester of Current Assessment: 2015-16 (Fall 2015)  
**Standard Met:** Standard Met  
The course ET 102 has now been taught twice with various student outcomes. The first time the course was taught, there was an emphasis on defining and understanding the complexities of sustainable energy. On review and a survey of one of the students in the first class, the primary take away was, “On how technology was the key factor in creating the processes for a sustainable future.”  
The second time the course was taught, another student said there was more of an emphasis on defining the use of sustainable materials and their effect on energy.  
All in all, the student participants interviewed for this assessment viewed the class as a very positive and informative class in the areas of sustainable systems technology in its various forms.

It should be noted that we are currently in the third offering of this course and a student attending this class was also interviewed. The outcome mid semester at the 8th week, is that more of an emphasis is placed on systems and also materials and methodologies.

As a review of the entire ET Program, we are determining that the ET 101 class represents the theoretical processes of sustainable and regenerative technologies as a social science discussion class. Going forward there will be... | **Action:** The changes being considered are to combine ET 102 -Systems and ET 103 -Materials and Methodologies into one three unit course titled ET 102, and then to adjust ET 103 into a LEED (Leadership in Energy & Environmental Design) preparation class.
This will enhance the overall program by creating two courses (one year) of 3 unit classes that will transfer to the university architecture programs requirements of one year in sustainability classes. And also will fulfill a professional designation by offering the opportunity to learn and train for a LEED preparation exam.

The aforementioned changes are becoming refined and added objectives to the Environmental Technology Program as we develop and determine what is necessary to offer our students in these classes in one of the fastest... |
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<th>Faculty Assessment Leader: Greg George</th>
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<td><strong>Assessment Method Description</strong></td>
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<td>changes made to affect ET 102 and ET 103 curriculum.</td>
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# Assessment: Assessment Unit Four Column

**FALL 2015**

## El Camino: PLOs (IND) - Fashion

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<td>PLO #3 Entry Level Position in the Fashion Industry - Upon successful completion of the courses in the fashion department (both AS degrees and certificates) the student will be able to identify entry level positions and related duties in the fashion industry.</td>
<td>Survey/Focus Group - Students are given a survey containing classified ads for various entry level positions. Students are to match the description with the position that matches it. <strong>Standard and Rubric:</strong> It is expected that 80% of the respondents will answer 80% of the survey items correctly.</td>
<td>Semester of Current Assessment: 2015-16 (Fall 2015) <strong>Standard Met:</strong> Standard Not Met 9 surveys were collected. Six were completed in-person and two were completed online at &quot;Survey Monkey&quot;. There were 10 positions described.&quot; The results follow: Student no. Score 1 8 2 6 3 5 4 6 5 6 6 6 7 7 8 9 9 8</td>
<td>Action: Inform instructors who teach the Fashion 1 class to be sure to cover the duties of the ten employment positions represented in this survey. This information can be sent to the instructor of record and later added to the course outline. (02/05/2017) <strong>Action Category:</strong> Curriculum Changes</td>
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The correct answers were: stylist, textile artist, patternmaker, sales associate, assistant buyer, fit model, showroom assistant, social media specialist, freelance designer, and visual merchandiser.
The analysis follows:
8 out of 10 is a score of 80%
Only 3 of the 9 students scored 80% or more.
One student did not complete the survey; he/she only filled out one side of the two-sided survey.
The standard was not met. (02/05/2016)

**Faculty Assessment Leader:** Vera Ashley  
**Faculty Contributing to Assessment:** No contribution
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**Courses Associated with PLO Assessment:** Fashion 1
### El Camino: PLOs (IND) - Nutrition and Foods

#### PLO Assessment Cycle: 2015-16 (Fall 2015)

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| PLO #3 Using Published Nutrition Facts | Students provide a label from a frequently consumed food product, and analyze the percentages of fat, carbohydrate, and protein, plus the amounts of sugar, sodium, and several key nutrients. They also list the first three ingredients in order of prominence. They then make a statement about why they will or won’t continue to purchase and consume this product. **Standard and Rubric:** This project is scored by number of accurate/correct responses divided by the total possible. A rubric is needed. It is expected that 80% of the students will score 85% or above. | **Semester of Current Assessment:** 2015-16 (Fall 2015)  
**Standard Met:** Standard Not Met  
19 students completed this project. 10/19 scored 90% or above (53%). 4/19 scored between 85-89% (21%). 5/19 scored between 65-84%. 74% met the stated standard.  
This project has no rubric. Creation of a rubric by which it is scored, and which is presented to the students as part of the assignment, will clear up areas of confusion. The most missed areas are how to calculate the percentage of calories from each macronutrient. Nutrients are stated in grams and energy is expressed in calories, so a conversion must be made. The other common error is not including the ingredient list with the label, so not being able to list ingredients or write any narrative about the ingredients. (12/09/2015)  
**Faculty Assessment Leader:** Sue Ellen Warren | **Action:** This project has no rubric. Creation of a rubric by which it is scored, and which is presented to the students as part of the assignment, will clear up areas of confusion. (01/21/2017)  
**Action Category:** Teaching Strategies |
# Assessment: Assessment Unit Four Column

**FALL 2015**

## El Camino: PLOs (IND) - Welding

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| PLO #1 Success in the Welding Industry - Success in the Welding Industry Upon completion of the Welding program, students will be able to demonstrate knowledge of the skills needed for success in the welding industry. **PLO Status:** Active  
**PLO Assessment Cycle:** 2015-16 (Fall 2015)  
**Input Date:** 11/29/2013 | Standardized/Licensing Exam - The advance structural steel weld students take the written exam offered by the LA Department of Building & Safety that focuses on the AWS Structural Steel Code book  
**Standard and Rubric:** This is a pass-fail outcome. All students are expected to master the concept. Some students will accomplish the objective on the first try, others may require multiple attempts. This outcome is foundational and required for students to progress in the course  
**Reviewer’s Comments:** This exam compliments the AWS 3G/4G D1.1 practical exam | Semester of Current Assessment: 2015-16 (Fall 2015)  
**Standard Met:** Standard Met  
98% of students passed the examination on the first attempt and, after further review, class discussion, demonstrations and instruction, 100% of students achieved a passing score. (02/04/2016)  
**Faculty Assessment Leader:** Renee Newell  
**Courses Associated with PLO Assessment:** Weld 28, Weld 23 & Weld 10C | Action: Perhaps additional small-group demonstrations for those students in need of additional help in grasping the concepts, methods and techniques required to successfully complete the project. (02/11/2017)  
**Action Category:** Teaching Strategies |