

## El Camino College and Compton Center

### ILO Assessment

### Institutional Learning Outcome I: Content Knowledge

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In spring 2013, El Camino College's Institutional Learning Outcome (ILO) I was assessed to determine if students exhibit the following "Content Knowledge" competency:

***Students possess and use the knowledge, skills and abilities specific to a chosen discipline, vocation or career.***

While proposed ILO statements no longer include a separate Content Knowledge competency, the Assessment of Learning Committee (ALC) wanted to review a sample institution-wide Program Learning Outcome (PLO) report so that the committee could strategize how to conduct systematic reporting of Student Learning Outcomes (SLOs) and PLOs from all academic divisions.

#### Methodology

The Content Knowledge ILO was assessed by analyzing PLO assessment data from the fall 2013 semester. This assessment method was selected because most PLOs already assess content knowledge. The existing PLO assessment process facilitated a systematic way to evaluate the learning of program-specific content.

The 17 PLO assessment reports used for the ILO assessment are listed below:

1. Air Conditioning and Refrigeration PLO #1 - Safety Knowledge and Skills
2. Air Conditioning and Refrigeration PLO #2 - Servicing and Repairing Systems
3. Air Conditioning and Refrigeration PLO #3 - Pressure Testing and Charging Systems
4. Air Conditioning and Refrigeration PLO #4 – Attaining Certificates and Degrees, Transferring, and Attaining Jobs
5. Anthropology PLO #1 – Four Field Approach
6. Automation, Robotics, and Manufacturing PLO #1 – Solving Engineering Problems
7. Automotive Technology PLO #2 – Skills for Entry Level Positions
8. Chemistry PLO #2 – Structural Representation of Compounds
9. Construction Technology PLO #1 – Safely Operating Industry Tools
10. Cosmetology PLO #1 – Licensure Exam
11. Developmental Math PLO #3 – Visual and Graphical Methods
12. Electronics and Computer Hardware PLO #1 – Safely Operating Industry Equipment
13. Fashion PLO #1 – Identifying Basic Sewing Techniques
14. Fire and Emergency Technology PLO #1 – Minimum Qualifications
15. Math for Math and Science Majors PLO #4 – Construct Proofs
16. Nutrition and Foods PLO #1 – Comprehensive Food Plans
17. Welding PLO #2 – Knowledge and Skills

13 of the 17 PLO assessment reports (or 76%) were submitted by the Industry and Technology division. Fall 2013 PLO assessment reports were examined to determine which PLOs strongly aligned with the Content Knowledge ILO. (Alignments of SLOs and PLOs to ILOs had already been completed by program faculty in fall 2012.) Faculty had aligned PLOs with ILOs on a 1 to 4 rating scale, using the below rubric:

- 4 - A major focus of the course/program. Direct instruction is provided. Students are evaluated multiple times (and possibly in various ways) throughout the course/program.
- 3 - An important part of the course/program. Some direct instruction is provided and students are evaluated on the concepts once or twice within the course/program.
- 2 - Only a minor focus of the course/program. Some instruction is given in the area but students are not formally evaluated on the concepts.
- 1 - May be tangentially part of the class/program, but is not directly taught or evaluated or is not part of the course/program at all.

It was determined that all (17 out of 17) PLOs used in fall 2013 assessment were strongly aligned (a 3 or 4 using the above scale) with the Content Knowledge ILO.

PLO assessment reports were analyzed as to whether the standard (or target) was met. The standard had already been established by faculty as the standard by which they will determine success in their program-level assessment (e.g. It is expected that 85% of students will score a 4 or above on the rubric for this PLO).

PLO assessment reports were also analyzed for the number and type of actions faculty members proposed to improve student learning as a result of assessment data analysis and discussion. Faculty members describe actions needed to improve student learning in one of four ways:

- 1. Teaching Strategies: Needed changes to teaching strategies to improve student learning.
- 2. Curriculum Changes: Needed curricular changes (pre-requisites, major topics, objectives, etc.).
- 3. Program/College Support: Anything the Program or College should do to support any of these changes.
- 4. PLO Assessment Process: Needed changes to the PLO statement or assessment process based on results.

## Results

Out of the 17 PLOs assessed in fall 2013, 13 (76%) met the established standard.

As a result of the PLO assessments, 14 actions were proposed by faculty including the following: 7 teaching strategies (50% of proposed actions), 1 curriculum change (8%), 3 requests for program/college support (21%), and 3 changes to the PLO assessment process (21%). Recommended teaching strategies included various lecture, discussion, and review techniques. The proposed curricular change involved research into course sequence adjustments. Requests for program/college support involved collaboration with program and student services personnel. Suggested changes to the PLO assessment process concerned the timing, scope, and composition of the outcomes assessments.

## Conclusions

This is a preliminary assessment based on a very small number of PLOs (approximately 7.5% of all currently active PLOs). Once sufficient PLO assessment results are available, a standard will be set for the percentage of PLOs meeting program-established targets. Results from this report will be combined with subsequent terms on an annual basis to determine learning trends in both PLOs and SLOs. Actions planned by faculty will also continue to be analyzed in relation to assessment results and trends.

This ILO assessment report concludes the first assessment cycle for the College's six ILO statements. All ILOs have been assessed. In fall 2013 and spring 2014, the ALC conducted a comprehensive review of ILO statements and reports with the goal of, if needed, developing a revised set of ILO statements. The ALC presented a revised set of ILOs to the Academic Senate, and these were ratified by the Academic Senate in May 2014. Past and current ILOs are listed below.

College ILO statements as ratified by the Academic Senate in 2007 (1-5) and 2010 (6):

1. **Content Knowledge:** Students possess and use the knowledge, skills and abilities specific to a chosen discipline, vocation or career.
2. **Critical, Creative and Analytical Thinking:** Students solve problems, make judgments and reach decisions using critical, creative and analytical skills.
3. **Communication and Comprehension:** Students effectively communicate in written, spoken or signed, and artistic forms to diverse audiences. Students comprehend and respectfully respond to the ideas of others.
4. **Professional and Personal Growth:** Students exhibit self-esteem, responsible behavior and personal integrity. Students are reflective and intellectually curious; they continue to improve themselves throughout life.
5. **Community and Collaboration:** Students appreciate local and global diversity and are respectful and empathetic during personal interactions and competitions. Students effectively collaborate and resolve conflicts. They are responsible, engaged members of society, who are willing and able to assume leadership roles.
6. **Information and Technology Literacy:** Students locate, critically evaluate, synthesize, and communicate information in various traditional and new media formats. Students understand the social, legal, and ethical issues related to information and its use.

College ILO statements as ratified by the Academic Senate in 2014:

1. **Critical Thinking:** Students apply critical, creative and analytical skills to identify and solve problems, analyze information, synthesize and evaluate ideas, and transform existing ideas into new forms.
2. **Communication:** Students effectively communicate with and respond to varied audiences in written, spoken or signed, and artistic forms.

3. **Community and Personal Development:** Students are productive and engaged members of society, demonstrating personal responsibility, and community and social awareness through their engagement in campus programs and services.
4. **Information Literacy:** Students determine an information need and use various media and formats to develop a research strategy and locate, evaluate, document, and use information to accomplish a specific purpose. Students demonstrate an understanding of the legal, social, and ethical aspects related to information use.

As indicated above, the Content Knowledge ILO has been eliminated. The ALC felt that the concept of content knowledge was already embedded in the other ILOs and would be best assessed at the SLO and PLO level. The approach of this ILO assessment report will be used to examine SLO and PLO results for all academic programs. Findings will be shared widely with campus faculty, administrators, and staff.

A new ILO assessment cycle will be established by the ALC in fall 2014.