I. Institutional Level Outcomes Overview

In 2012, Institutional level outcomes (ILOs) were instituted at City College of San Francisco, by the Academic Senate, following a thorough review of Institutional Level Outcomes at other colleges. Four ILO outcomes were created: 1. Critical Thinking & Information Competency; 2. Communication; 3. Social, Cultural, and Environmental Awareness; and 4. Personal & Career Development, each with its own subset of outcomes. At this time the ACCJC does not require colleges to craft ILOs if GE Outcomes are in place. However, City College of San Francisco wisely crafted Institutional Outcomes as many course offerings in non-credit, CTE, and certificate programs do not correspond to General Education goals. The Assessment Planning Team, with the aid of the SLO Committee of the Academic Senate, scheduled ILO assessments and published the schedule in the Annual Assessment Plan. Starting in the spring 2013, assessment of the Critical Thinking & Information Competency ILO began. This report summarizes mapping analysis, wording revisions, data collection and analysis, and provides recommendations for continued campus dialogue and use of the findings.

A. Mapping Data

After being directed to sample mappings, instructional program coordinators were asked on Spring 2013 Assessment Progress Reports to map Program-Level Student Learning Outcomes (PSLOs) to the following Institutional Level Outcome:

- Use reason and creativity to make decisions and solve problems
- Apply diverse viewpoints to aid in decision making or problem solving
- Locate, retrieve, and evaluate information using appropriate research strategies, tools and technology.

Not accounting for mapping errors:

Approximately 152 programs indicated they mapped to “Use reason and creativity to make decisions and solve problems”.

Approximately 98 programs indicated they mapped to “apply diverse viewpoints to aid in decision making and problem solving”.

Approximately 117 programs indicated they mapped to “Locate, retrieve, and evaluate information using appropriate research strategies, tools, and technology.”
A full listing of these PSLOs is viewable in the Critical Thinking ILO mapping report.

Twelve members of the AS SLO Committee evaluated 216 mapping determinations made by program coordinators. The process yielded the following results:

| Mapped PSLOs were clear, coherent, & correct | 44% of mappings |
| Mapped PSLOs were unclear, mistaken, or incorrect | 13% of mappings |
| Under mapped; had some mapped but more PSLOs would map | 16% of mappings |
| Claimed program did not map and lack of connection to ILOs verified | 8% of mappings |
| Claimed program did not map but committee member determined otherwise; PSLOs would map to ILOs | 19% of mappings |

Data Summary

The SLO Committee found that 80% of the time a firm connection between PSLOs and ILOs could be verified. In cases where the PSLO mapping was evaluated as unclear/incorrect, some patterns seemed to emerge.

First, some very specific PSLOs, reading more like course-level SLOs, were vexing to reviewers. Course content from mapped classes in the program may provide the connection. But, to the reviewers, those connections were not obvious at the PSLO level.

Second, the Information Competency prong of the ILO (#3) was noted to produce the most errors prompting subject Librarians at City College to meet to discuss the information competency mapping data and conduct independent analysis. Analysis from their report, completed in spring 2014, makes up Part III of this report.

B. Revision and Updating Outcomes

Following the Annual Assessment Plan calendar for ILO assessment, the SLO committee of the Academic Senate began vigorous discussion of the Critical Thinking Outcome in the fall of 2013. Discussions continued in spring 2014. From these deliberations, from both the SLO Committee and in concert with subject librarians, two revisions to the outcomes were drafted and eventually passed the Academic Senate.

a) Preamble/Scope of ILOs. Language on the SLO webpage left readers with the impression that each ILO must be met by every student at the college, regardless of their class load or education goal. After researching and discussing the objective of ILOs, it was decided the language was unnecessarily broad. Clarification for the ILO was drafted and voted on by the AS Executive Council. The new preamble now reads: Students who successfully complete their educational programs at CCSF will achieve all or an appropriate set of the following Institutional Learning Outcomes.

b) Revision of the Critical Thinking ILO. Members of the SLO committee found the critical thinking ILO substructure both too redundant (two sub points both "make decisions and solve problems") and restrictive (critical thinking was still deemed intellectually valuable even if it didn’t arrive at a solution or decision) to serve the complexity of course offering at City College of San Francisco. Additionally, an analysis of mapping data was conducted (discussed above) and SLO committee members concluded that mapping errors may be reduced with some key revisions. The following changes were proposed to the Academic Senate and passed on April 16, 2014:

Past Critical Thinking ILO Wording

Critical Thinking and Information Competency
- Use reason and creativity to make decisions and solve problems
- Apply diverse viewpoints to aid in decision making or problem solving
• Locate, retrieve, and evaluate information using appropriate research strategies, tools and technology.

New Adopted Wording

Critical Thinking and Information Competency

• Apply critical and creative reasoning, including diverse perspectives, to address complex problems
• Locate, evaluate, synthesize, and appropriately use multiple forms of information

C. Common Assessment Rubric

Like with GE assessment, ILO assessments utilize a common rubric. Program Coordinators participating in ILO1 assessment were asked to translate their program’s assessment results into three categories: Proficiency, Developing, No Evidence. Instructions and sample rubrics were provided to program coordinators as guides.

II. Data and Analysis

Overview of Fall 2013 Assessment Activity on ILO #1

<table>
<thead>
<tr>
<th>Program Area</th>
<th># of PSLOs</th>
<th># of PSLOs assessed to date</th>
<th>% of PSLOs assessed to date</th>
<th>Assessment frequency</th>
<th>Data review/analysis frequency</th>
<th>Data collected when?</th>
<th>Total # of students assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive/Motorcycle Technology, Construction, and Building Maintenance — Certificate of Accomplishment (credit) — Automotive Engine Performance and Drivability</td>
<td>4</td>
<td>4</td>
<td>100</td>
<td>Every 3 years</td>
<td>Every 3 years</td>
<td>Spring 2013</td>
<td>40</td>
</tr>
<tr>
<td>Automotive/Motorcycle Technology, Construction, and Building Maintenance — Certificate of Accomplishment (credit) — Brake and Suspension Specialist</td>
<td>4</td>
<td>4</td>
<td>100</td>
<td>Every 3 years</td>
<td>Every 3 years</td>
<td>Fall 2013</td>
<td>25</td>
</tr>
<tr>
<td>Automotive/Motorcycle Technology, Construction, and Building Maintenance — Certificate of Accomplishment (credit) — Engine Repair Specialist</td>
<td>4</td>
<td>4</td>
<td>100</td>
<td>Every 3 years</td>
<td>Every 3 years</td>
<td>Fall 2013, Spring 2013</td>
<td>45</td>
</tr>
<tr>
<td>Child Dev. &amp; Family Studies -- Major -- Child Development Major, AS-T Transfer Degree and Practitioner Certificate</td>
<td>9</td>
<td>9</td>
<td>100</td>
<td>Every 3 years</td>
<td>Every 3 years</td>
<td>Jan-14</td>
<td>34</td>
</tr>
<tr>
<td>Cinema -- Major -- Cinema Production Major/Film Studies</td>
<td>4</td>
<td>3</td>
<td>75</td>
<td>Every semester</td>
<td>Every semester</td>
<td>Fall 2013</td>
<td>47</td>
</tr>
<tr>
<td>Computer Science -- Certificate of Accomplishment (credit) -- Android App Programming</td>
<td>5</td>
<td>5</td>
<td>100</td>
<td>Every 2 years</td>
<td>Every year</td>
<td>Spring 2013</td>
<td>30</td>
</tr>
<tr>
<td>Program</td>
<td>Credits</td>
<td>Hours</td>
<td>Every year</td>
<td>Every semester</td>
<td>When</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------------</td>
<td>----------------</td>
<td>------</td>
<td>--------------------------</td>
<td></td>
</tr>
<tr>
<td>Continuing Student Counseling -- Discipline -- Career Development</td>
<td>7</td>
<td>5</td>
<td>71.4</td>
<td>Every year</td>
<td>Fall 2013</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Earth Sciences -- Certificate of Accomplishment (credit) -- GIS</td>
<td>3</td>
<td>3</td>
<td>100</td>
<td>Every semester</td>
<td>Fall 2013</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Earth Sciences -- Major -- Oceanography</td>
<td>7</td>
<td>7</td>
<td>100</td>
<td>Every 3 years</td>
<td>Fall 2013</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Engineering &amp; Technology -- Certificate of Accomplishment (credit) --</td>
<td>2</td>
<td>2</td>
<td>100</td>
<td>Every semester</td>
<td>Fall 2013</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Basic Electronics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English as a Second Language -- Noncredit ESL Program -- Noncredit ESL</td>
<td>4</td>
<td>4</td>
<td>100</td>
<td>Every semester</td>
<td>Fall 2013</td>
<td>856</td>
<td></td>
</tr>
<tr>
<td>Fashion -- Certificate of Accomplishment (credit) - - Fashion Styling</td>
<td>3</td>
<td>3</td>
<td>100</td>
<td>Every 2 years</td>
<td>Fall 2013</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Health Care Technology -- Major -- Associate of Science in Medical</td>
<td>3</td>
<td>3</td>
<td>100</td>
<td>Every year</td>
<td>Fall 2013</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Office Assisting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Care Technology -- Certificate of Accomplishment (credit) -- HIT</td>
<td>1</td>
<td>1</td>
<td>100</td>
<td>Every semester</td>
<td>Fall 2013</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Clerk I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Care Technology -- Certificate of Achievement (credit) -- HIT</td>
<td>4</td>
<td>3</td>
<td>75</td>
<td>Every semester</td>
<td>Fall 2013</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Clerk II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Care Technology -- Certificate of Achievement (credit) -- HIT</td>
<td>4</td>
<td>3</td>
<td>75</td>
<td>Every semester</td>
<td>Fall 2013</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Clerk II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Care Technology -- Certificate of Achievement (credit) -- HIT</td>
<td>5</td>
<td>4</td>
<td>80</td>
<td>Every semester</td>
<td>Fall 2013</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Coding Specialist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Care Technology -- Major -- AS in Health Information Technology</td>
<td>5</td>
<td>4</td>
<td>80</td>
<td>Every semester</td>
<td>Fall 2013</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Library &amp; Learning Resources -- Discipline -- Library &amp; Learning</td>
<td>4</td>
<td>4</td>
<td>100</td>
<td>Every 2 years</td>
<td>Fall 2013</td>
<td>369</td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics -- Discipline -- Mathematics</td>
<td>3</td>
<td>1</td>
<td>33.3</td>
<td>Every year</td>
<td>Fall 2013</td>
<td>1405</td>
<td></td>
</tr>
</tbody>
</table>
Physics -- Major -- Physics (for Physics Major)  
- 4 2 50  
- Every semester  
- Every 2 years  
- Fall 2013  
- 134

Social Sciences -- Discipline -- History  
- 7 7 100  
- Every semester  
- Every semester  
- Spring 2013  
- 46

Speech Communication -- Major -- Communication Studies AA-T  
- 5 3 60  
- Every semester  
- Every semester  
- Spring 2013  
- 18

AVERAGE/TOTAL -- --  
- 101 88 87.1  
- Every semester (84%)  
- Every year (71%)  
- Fall 2013 (most)  
- 3442

With approximately 330 programs at CCSF, about 15% of programs participated in the Critical Thinking & Information Competency assessment. With greater awareness of the ILO assessment calendar, the SLO team aspires to improve participation. Departmental leadership is encouraged to schedule PSLO assessments with the ILO assessment calendar in mind.

The above data does provide some encouraging conclusions. The 3 year benchmark for assessment of all PSLOs appears quite reachable. Most reporting programs have already assessed a majority of their PSLOs. Moreover, the majority of those reporting (84%) engage in assessment activities every semester. If this level of assessment is sustained, all programs will reach Sustainable Continuous Quality Improvement goals in the near future. While this data cannot be extrapolated to the remaining 85% of programs with certainty, CCSF has constructed firm bedrock with regard to PSLO assessment.

### Proficiency Data for ILO-A

<table>
<thead>
<tr>
<th>ILO#1A: Use reason and creativity to make decisions and solve problems.</th>
<th># of PROFICIENT students</th>
<th># of DEVELOPING students</th>
<th># of students showing NO EVIDENCE</th>
<th># of unassessed students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive/Motorcycle Technology, Construction, and Building Maintenance -- Certificate of Accomplishment (credit) -- Automotive Engine Performance and Drivability</td>
<td>30</td>
<td>10</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Automotive/Motorcycle Technology, Construction, and Building Maintenance -- Certificate of Accomplishment (credit) -- Brake and Suspension Specialist</td>
<td>20</td>
<td>5</td>
<td>0.0</td>
<td>5 16.7</td>
</tr>
<tr>
<td>Automotive/Motorcycle Technology, Construction, and Building Maintenance -- Certificate of Accomplishment (credit) -- Engine Repair</td>
<td>35</td>
<td>10</td>
<td>0.0</td>
<td>5 10.0</td>
</tr>
</tbody>
</table>
ILO1-A garnered the most robust reporting. With a proficiency average of 69.4, the assessment data for ILO#1-A mirrors the overall pass rate for the college in fall 2013—69.5%. ILO 1A is dominated by larger reporting numbers in both mathematics and Noncredit ESL. For the most part, critical thinking outcomes data should buoy our institution-set standards for successful course completion (set
at 69.5%). While achievement and outcome data should not be confused, outcomes data clearly supports and validates achievement data. Only two programs reported students “developing” outcomes in greater numbers than those achieving proficiency, both in the STEM disciplines.

Proficiency Data for ILO-B

<table>
<thead>
<tr>
<th>ILO 1: Apply diverse viewpoints to aid in decision making or problem solving.</th>
<th># of PROFICIENT students</th>
<th># of DEVELOPING students</th>
<th># of students showing NO EVIDENCE</th>
<th># of unassessed students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cinema -- Major -- Cinema Production Major/Film Studies</td>
<td>37</td>
<td>74.0</td>
<td>7</td>
<td>14.0</td>
</tr>
<tr>
<td>Earth Sciences -- Certificate of Accomplishment (credit) -- GIS</td>
<td>27</td>
<td>93.1</td>
<td>2</td>
<td>6.9</td>
</tr>
<tr>
<td>Earth Sciences -- Major -- Oceanography</td>
<td>55</td>
<td>62.5</td>
<td>26</td>
<td>29.5</td>
</tr>
<tr>
<td>Fashion -- Certificate of Accomplishment (credit) -- Fashion Styling</td>
<td>74</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Health Care Technology -- Major -- Associate of Science in Medical Office Assisting</td>
<td>60</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Health Care Technology -- Certificate of Achievement (credit) -- Certificate of Achievement in Health Information Technology</td>
<td>3</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Health Care Technology -- Certificate of Achievement (credit) -- Certificate of Achievement in HIT Clerk II</td>
<td>13</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Social Sciences -- Discipline -- History</td>
<td>149</td>
<td>44.3</td>
<td>128</td>
<td>38.1</td>
</tr>
<tr>
<td>AVERAGE/TOTAL -- --</td>
<td>418</td>
<td>64.0</td>
<td>163</td>
<td>25.0</td>
</tr>
</tbody>
</table>

Fewer programs mapped to ILO-B so its lower response rate was not unexpected. The outcome revision folds the inclusion of diverse perspectives into the critical thinking outcome. Proficiency rates for this outcome are slightly lower than scores for other institutional level assessments, but outcome refinement may provide our campus community with more valid and robust data during the next round of assessment.
### Proficiency Data for ILO-C

**ILO#1:** Locate, retrieve, and evaluate information using appropriate research strategies, tools and technology.

<table>
<thead>
<tr>
<th>Program/Field</th>
<th># of students</th>
<th># of DEVELOPING students</th>
<th># of students showing NO EVIDENCE</th>
<th># of unassessed students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive/Motorcycle Technology, Construction, and Building Maintenance -- Certificate of Accomplishment (credit) -- Automotive Engine Performance and Drivability</td>
<td>30</td>
<td>75.0</td>
<td>10</td>
<td>25.0</td>
</tr>
<tr>
<td>Automotive/Motorcycle Technology, Construction, and Building Maintenance -- Certificate of Accomplishment (credit) -- Brake and Suspension Specialist</td>
<td>20</td>
<td>80.0</td>
<td>5</td>
<td>20.0</td>
</tr>
<tr>
<td>Automotive/Motorcycle Technology, Construction, and Building Maintenance -- Certificate of Accomplishment (credit) -- Engine Repair Specialist</td>
<td>35</td>
<td>77.8</td>
<td>10</td>
<td>22.2</td>
</tr>
<tr>
<td>Cinema -- Major -- Cinema Production Major/Film Studies</td>
<td>37</td>
<td>78.7</td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td>Computer Science -- Certificate of Accomplishment (credit) -- Android App Programming</td>
<td>30</td>
<td>50.0</td>
<td>15</td>
<td>25.0</td>
</tr>
<tr>
<td>Continuing Student Counseling -- Discipline -- Career Development</td>
<td>14</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Earth Sciences -- Certificate of Accomplishment (credit) -- GIS</td>
<td>27</td>
<td>93.1</td>
<td>2</td>
<td>6.9</td>
</tr>
<tr>
<td>Engineering &amp; Technology -- Certificate of Accomplishment (credit) -- Basic Electronics</td>
<td>20</td>
<td>33.3</td>
<td>30</td>
<td>50.0</td>
</tr>
<tr>
<td>Fashion -- Certificate of Accomplishment (credit) -- Fashion Styling</td>
<td>74</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Health Care Technology -- Major -- Associate of Science in Medical Office Assisting</td>
<td>60</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Health Care Technology -- Certificate of Accomplishment (credit) -- HIT Clerk I</td>
<td>19</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Information Competency data had the highest average, though not significantly higher than ILO-A. About of a quarter of the above data comes from programs that subject librarians found only loosely, or inaccurately mapped to ILO-C. That being said, Library & Learning resources provided the largest data set and its discipline’s outcomes align perfectly with ILO-C. With over 70% of students reaching proficiency in Information Competency, and very few students showing “no evidence,” outcome data provided for this assessment reflect that overall learning strategies are working for the majority of our students.

III. ILO-C Analysis

Information competency (IC) standards overlap with most college overarching learning outcomes (e.g. lifelong learning, critical thinking, communication.) Information competency is the ability “to recognize when information is needed, and to effectively locate, evaluate, and use that information” (Information Literacy Competency Standards for Higher Education, American Library Association, 2006).

The first CCSF districtwide ILO 1C curriculum mapping exercise in fall 2013 asked program coordinators of all disciplines and departments whether their program learning outcomes mapped to ILO 1C and if so, which outcomes. The initial assessment provides rich data on faculty understanding of information competency as it relates to their programs.

During a college-wide professional development day, librarians met to discuss the mapping of ILO 1C. Subject librarians reviewed the PSLOs mapped to their assigned disciplines and analyzed whether the mapping was accurate. They also reviewed all program learning outcomes for their assigned disciplines in the College Catalog to see whether other PSLOS align better with ILO 1C. Librarians uncovered common themes in faculty understanding of information competency and also of curriculum mapping itself. The themes discussed helped librarians rethink the wording of ILO 1C and recommendations of this new wording will be presented to the College’s SLO committee and Academic Senate.

Additionally, the curriculum maps offer a unique starting point for dialogue between the subject librarians and teaching faculty in their assigned departments. Better alignment of program and institutional level outcomes and assessment methods for information competency can be realized jointly through collaboration.

**ANALYSIS**

<table>
<thead>
<tr>
<th>MAPPING TO ILO 1C: INFORMATION COMPETENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td># of programs, certificates, disciplines, majors</td>
</tr>
<tr>
<td># of departments</td>
</tr>
<tr>
<td># of programs, certificates, disciplines and majors that had at least one PSLO mapped accurately</td>
</tr>
</tbody>
</table>
Subject librarians reviewed the PSLOs mapped to their assigned disciplines and analyzed whether the mapping was accurate. In most cases, the mapping needs to be reviewed and clarified. Some faculty mapped PSLOS that require research and synthesis of information prior to meeting the outcome, yet the research/synthesis component of the outcome is implied not stated. In other words, the PSLOs focused on *having the information* rather than the process of acquiring, evaluating and synthesizing the information (e.g. the study of...). Examples include:

- **PSLO**: Compare exemplary historical examples of architecture as impacted by social, political, economic, and environmental factors.
- **PSLO**: Establish that the universe and its components are knowable, and that we are coming to know them through observations, experiments and theory (the nature of progress in astronomy).
- **PSLO1**: Describe and analyze the history of radio and explain its impact on the structure of radio today.
- **PSLO**: Distinguish, classify, and summarize automotive systems, functions, and their interrelation.

The librarians struggled with the appropriateness of mapping PSLOs to ILO 1C if they did not explicitly state IC skills but incorporated information competency more indirectly. Program outcomes are generally broad and overarching and because the assessment of PSLOs often occurs at the course level, it is possible that the course SLOs have more direct language that includes information competency learning outcomes. Therefore, the program outcome measures (at the course level) may assess information competency skill sets. In cases where information competency is implied not stated in the PSLO, further discussion between librarians and department faculty should take place to determine whether the alignment of the curriculum mapping is appropriate. Further, if a program does assess information competency, a rewording of the PSLO associated with information competency may be appropriate. Authentic assessment can be realized more successfully after librarians and discipline faculty have collaborated on assignments and assessment measures.

**Technology not Information Competency**

The mapping exercise also showed some program coordinators wrongly mapped their PSLOs to ILO 1C under the precept that ILO 1C is primarily related to technology skills. These PSLOs mention technological skills and the ability to use specific software and equipment. Examples include:

- **PSLO**: Keyboard a minimum of 35 net words a minute
- **PSLO**: Create financial statements using Microsoft Excel.

Because technology literacy is so important in today's society and many PSLOs are indeed related to it, the college may consider an additional ILO related to technology literacy.

**All versus One**

In many cases, program coordinators mapped several if not all PSLOs to ILO 1C. Upon review, it may appear that one or two of the PSLOs are mapped appropriately, while the others are not. Reasons for over-mapping are unknown. However, subject librarians can use this opportunity to open up a dialogue with their respective faculty and focus on the ones that clearly map.

**OPPORTUNITIES FOR COMBINED ASSESSMENT ACTIVITIES**

The following PSLOS were identified as the most appropriately mapped to information competency. Future collaborative assessment efforts can be pursued with program coordinators.
Asian American Studies  
Asian American Studies  
PSLO: Critically evaluate the ways Asians Americans act and ways others have acted in response to their experience in the United States including conditioning, culture, and subgroups within the Asian American Community, by applying the theories and methodologies of social and behavioral science inquiry used in Asian American Studies.

Biological Sciences  
Environmental Studies and Science  
PSLO: 1. Demonstrate an understanding of the process of science, the scientific method, and the relationship between scientific research and established knowledge.  
PSLO: 4. Analyze and integrate evidence from research in the natural sciences, social sciences, engineering and technology to critically evaluate proposed solutions to environmental and resource issues

Broadcast Electronic Media Arts  
All BEMA Certificates  
PSLO 1: Discuss, evaluate and analyze the impact internet content has on society.

Continuing Student Counseling  
Career Counseling Discipline  
SLO 3: Apply research skills while taking action to create academic, career, and life options.

Culinary Arts and Hospitality Studies  
All CAHS Certificates  
PSLO# 6: Use industry specific technology to retrieve, create, organize, and communicate information in ways that inform and enhance individual and organizational performance.

English  
AA-T in English  
PSLO 4. Create (write or present) coherent arguments that exhibit clear prose and synthesize diverse bodies of knowledge.

English  
Humanities  
PSLO 3: Analyze texts and practices through writing and discussion.

Health Care Technology  
Paramedic  
PSLO: The ability to comprehend, apply, and evaluate information relative to the role of an entry-level Paramedic.

Health Education  
Health Education  
PSLO: Access, interpret and analyze health data; design tools, measures and apply statistical models to understand and improve community health.

Lesbian, Gay, Bisexual & Transgender Studies  
LGBT  
PSLO: Research, analyze, and critically address key issues in understanding Lesbian, Gay, Bisexual, Transgender, Queer and Intersex histories and the intersectionality of LGBTQI identity formations with race, ethnicity, socio-economic status, religion, age, and ability within the context of systems of power and privilege.

Philippine Studies  
Philippine Studies  
PSLO 1: Identify and apply basic research methods in the study of Philippine society and culture.

Social Sciences  
History  
PSLO 2: Demonstrate the ability to critically analyze, evaluate and synthesize historical evidence and interpretations and to use methods of inquiry and expression appropriate to the course.  
PSLO 3: Demonstrate the ability to interpret primary and secondary sources and to compose a written argument or interpretation which uses them, as appropriate, for support.

Speech Communication  
Speech Communication  
PSLO: locate, read, and evaluate research (traditional and electronic) and learn to effectively incorporate support for ideas and construct arguments in written and spoken communication.

Social Sciences  
American Studies  
PSLO 2: Integrate basic social sciences approaches and methodologies and their application to course topics  
PSLO 5: Evaluate information in primary sources

**IMPROVE ALIGNMENT OF PSLOS WITH INFORMATION COMPETENCY PHRASING**

Students are exposed to learning activities that enforce information competency skills in any given course. The following outcomes can be incorporated into any course and applied to a variety of assignments. Many are already part of courses, or are implied in course assignments. Both the instructor and student must have a clear understanding of the learning outcome and the required work to achieve it. Faculty can work together with subject librarians to create authentic assessments of IC outcomes.
INFORMATION COMPETENCY PHRASING USED IN OUTCOME DEVELOPMENT

| To determine the nature and extent of the information needed, a student… | identifies key concepts and terms  
seeks background information  
focuses or broadens a topic  
identifies sources of various types and formats  
differentiates between popular and scholarly sources  
differentiates between primary and secondary sources |
|---|---|
| To access the information effectively and efficiently, a student… | chooses most appropriate method or tool for accessing information  
identifies keywords, synonyms, and related terms  
recognizes and employs “subject” vocabulary as well as keywords  
constructs online searches using commands and operators  
recognizes and uses common functions in differing search tools |
| In order to evaluate information and sources critically a student… | assesses the authority, accuracy, currency, bias, coverage, purpose of information sources  
recognizes social and cultural context in which information was created  
incorporates information into knowledge base; synthesizes main ideas to form new concepts and questions  
consults instructors, experts, and peers to validate their understanding of information |
| To use information effectively to accomplish a purpose, a student… | organizes information in a way appropriate to format of work  
effectively manages and manipulates digital information  
revises development process (logs research activities, reflects on what does and doesn’t work)  
communicates work/product effectively (best medium and format for purpose, range of technology, communicates clearly, appropriate style) |
| The student does all of this with an understanding of the economic, ethical, legal, and social issues surrounding use of information when he or she… | understands difference between free and fee-based sources  
acknowledges issues surrounding copyright, and fair use and legally obtains, stores and disseminates digital information  
understands what constitutes plagiarism and acknowledges use of sources through proper citation |

CONCLUSION AND NEXT STEPS

A significant number of program coordinators aligned their program outcomes to information competency. Yet, many of these outcomes only do so indirectly or not at all. If information competency skills are required, taught, and measured in courses of a program, a program outcome which directly states IC skills can be rewritten or created. This alignment is important for faculty to know what they are teaching and to convey to students what they’ll be learning.

IV. Recommendations & Plan for College Wide Dialogue

The Critical Thinking Institutional Learning Outcomes has been an on-going conversation for over a year. SLO leaders on the Academic Senate SLO Committee have reported up and out during the data collection and outcome revision process. Sustained deliberations among Library and Learning Resource faculty and staff enriched the ILO#1 assessment process. While the ILO report is complete, dialogue should continue in the following manner:

- Program coordinators not participating in ILO#1 assessment should compare data to college community averages when mapped PSLOs are assessed. Conversations should be on-going at the department level.
- School meetings, now being practiced routinely in some Schools, should reflect on trends in their disciplines. If School-Wide meetings are scheduled on FLEX days, ILO and GE assessment data and interventions should be standing agenda items.
• Conversations need to occur college-wide on the appropriate data set for ILO assessments. Meaningful data was collected during this assessment due to large data sets reported by disciplines. Programs using a strict interpretation of “program” (only those students actively pursuing a major or certificate), rather than those participating in a program kept our data set lower than expected.
• Deans should engage departmental faculty in discussions about data trends in outcomes’ assessments.
• Faculty can work together with subject librarians to create authentic assessments of Information Competency outcomes.
• In cases where information competency is implied and not stated in the PSLO, further discussion between librarians and department faculty should take place to determine whether the alignment of the curriculum mapping is appropriate. See Appendix A for model examples. Better alignment of program and institutional level outcomes and assessment methods can be realized jointly through collaboration.
• Program coordinators struggling to appropriately map PSLOs to ILOs should attend trainings offered at the beginning of fall 2014 and in advance of the CurricuNET Meta implementation.
• While outcome data on critical thinking demonstrates that a respectable number of students are reaching critical thinking and information competency outcomes, faculty should set aspirational goals for the data and discuss pedagogical techniques to further expand this institutional strength.
• When discussing program development during the Program Review process, ILO data should be used to further inform a program’s development.