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KEY RESOURCES

The following resources are available on the Carrington College California (CCC) Academics Document Intranet site: http://ccollege/ccc/academics/SitePages/Home.aspx, which is available to all Carrington College California staff.

- Master lists of onsite and online SLOs and assessment methods
- eLumen User Guide, which includes instructions on accessing courses and course rosters in eLumen and entering SLO performance data
- eLumen: Learning Lab Guide, which include instructions on assessing Student Success Center SLOs
- Developing CCC Course-Level SLOs, a faculty training PowerPoint presentation which contains further information on the CCC approach to the development of CSLOs
- Excel tools for generating SLO campus reports
- Program pro forma SLO campus program reports
SLO ASSESSMENT

The SLO continuous improvement cycle operates on four levels:

1. Instructors complete a section improvement plan at the end of each course. Improvement strategies are located inside of eLumen.

2. Program Directors and faculty evaluate student performance on CSLOs, PSLOs, and ISLOs yearly. Performance gap analyses are conducted and improvement strategies are documented in program continuous improvement plans.

3. The Academics team at the Home Office annually aggregates all campus SLO data and provides a report on outcomes of student learning at the college level, as well as improvement strategies.

4. Faculty and program directors review SLOs and SLO data during program review conducted every three years.

The SLO assessment cycle is a cycle of reviewing, assessing, and planning for improvement.

For onsite programs, the CCC SLO assessment cycle is conducted at three levels

1. Course – Instructor Level
2. Program – Campus Level
3. College – Institutional Level
## CCC SLO Assessment – Onsite

The following SLO assessment cycle table sets out the scope and frequency of evaluating SLO assessment data:

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Level</th>
<th>SLO Data</th>
<th>Responsibility</th>
<th>Forum Dialogue</th>
<th>Documentation of Improvement Strategies</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing at Completion of Section (Onsite)</td>
<td>Course</td>
<td>Instructors review outcomes for sections they have taught</td>
<td>Instructors</td>
<td>Faculty meetings consider rolled up section improvement plans when reviewing campus program data</td>
<td>Improvement strategies documented in eLumen: Section Action &amp; Analysis</td>
<td>Improved classroom strategies</td>
</tr>
<tr>
<td>Six Monthly</td>
<td>Campus</td>
<td>Program Directors and Deans of School review aggregated SLO data for program courses</td>
<td>Program Directors DOA SSC Managers to assist with reporting</td>
<td>Faculty meeting EMT meetings Education Committee</td>
<td>Faculty meeting minutes EMT minutes Plans documented in program Continuous Improvement Plans (CIPs)</td>
<td>Whole faculty approach to improving campus course and program outcomes</td>
</tr>
<tr>
<td>Annually</td>
<td>College</td>
<td>All SLO performance data aggregated to college level</td>
<td>Dean of Institutional Effectiveness Deans of School</td>
<td>Education Committee</td>
<td>Improvement strategies documented in recommendations to Executive Council</td>
<td>Whole college approach to improving campus course and program outcomes</td>
</tr>
</tbody>
</table>

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**Note:**
- **SLO** stands for Student Learning Outcomes.
- **CCC** refers to the California Community College System.
- **Instructors** and **Faculty** refer to the professional staff responsible for teaching and assessing student learning outcomes.
- **DOA** stands for Designated Official of the College.
- **SSC** stands for Student Services Center.
- **EMT** stands for Education and Management Team.
- **Dean of School** and **Executive Council** are administrative roles within the college.
- **Executive** refers to the overall governance body of the institution.

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**Student Learning Outcomes Manual**
**CCC SLO Assessment – Online**

For online programs, the CCC SLO assessment cycle is conducted at three levels

1. Course – Instructor Level
2. Program – Campus Level
3. College – Institutional Level

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Level</th>
<th>SLO Data</th>
<th>Responsibility</th>
<th>Forum Dialogue</th>
<th>Documentation of Improvement Strategies</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six Monthly</td>
<td>Campus</td>
<td>Deans of School review aggregated SLO data for program courses</td>
<td>Deans of School</td>
<td>Faculty meeting</td>
<td>Faculty meeting minutes Plans documented in program online Continuous Improvement Plans (CIPs)</td>
<td>Whole faculty approach to improving campus course and program outcomes</td>
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<tr>
<td>Annually</td>
<td>College</td>
<td>All SLO performance data aggregated to college level</td>
<td>Dean of Institutional Effectiveness</td>
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<td>Improvement strategies documented in recommendations to Executive Council</td>
<td>Whole college approach to improving campus course and program outcomes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Deans of School</td>
<td>Executive Council</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Defining Student Learning Outcomes at CCC**

College faculty and staff understand the importance of the development and ongoing assessment of SLOs and the role of SLO assessment in the institutional improvement process and institutional accountability. The goal at the College is to conduct continuous assessment of institutional-level, program-level, and course-level SLOs based on valid and reliable assessment measures embedded throughout the College’s instructional and student service programs.

The following principles guide the College implementation and execution of SLO assessment practices:

1. Although guided, directed, and supported by the College Administrative Office, SLO assessment and improvement promotes leadership at the campus level to foster a culture of assessment and improved learning.
2. At the course level and program level, SLO assessment and improvement is faculty-led and classroom-based to ensure a direct focus on learning.
3. Existing program and course assessment tools are utilized to engage faculty successfully in the process of SLO assessment. Where existing assessment instruments and tools are not adequate to generate reliable data for analysis and assessment, faculty are provided assistance to develop rubrics and other assessment instruments.
4. SLO assessment is a component of the program and services review process. SLO assessment is ongoing, with conclusions and trends reported in program review, as well as twice-yearly reviews of SLO assessment at the campuses.

These principles inform the ongoing process of SLO development and assessment at the College.
How Were the CCC SLOs Developed?
For onsite programs and courses, student learning outcomes were identified in conjunction with the program and service reviews conducted from 2008. Following professional development during the 2008 program review process, program directors worked with faculty to develop program-level and course-level SLOs (PSLOs and CSLOs). Institutional-level SLOs (ISLOs) were developed by the college community in 2007. Faculty also mapped the institutional-level SLOs to courses. PSLO assessment was implemented from 2008 to 2009, while CSLO and ISLO assessment was implemented from 2010 to 2012.

For online programs and courses, SLOs were developed by subject matter experts and faculty in the curriculum development process.

Master lists of onsite and online SLOs and assessment methods are available on the CCC Academics Document site: [http://ccollege/ccc/academics/SitePages/Home.aspx](http://ccollege/ccc/academics/SitePages/Home.aspx).

Course-Level SLOs (CSLOs)
Course-level SLOs have been identified for all college courses and programs.

Assessment of outcomes and improvement strategies are an on-going process with formal reviews and planning strategies conducted during the program review cycle.

As CCC provides a career-focused education, CCC professors focus on the assessment of demonstrable skills and knowledge outcomes. CSLOs are more than a list of competencies or skills to be demonstrated. At CCC, the CSLOs represent skills and knowledge elements bundled up into an outcome statement describing significant skills, knowledge, and the understanding required for a successful career in the vocational field.

For further information on the approach to the development of CSLOs at Carrington College California, please reference Developing CCC Course-Level SLOs, a faculty training PowerPoint found on the CCC Academics Document site: [http://ccollege/ccc/academics/SitePages/Home.aspx](http://ccollege/ccc/academics/SitePages/Home.aspx).

Program-Level SLOs (PSLOs)
All CCC programs have program-level student learning outcomes.

Program-level student learning outcomes are measurable statements of what a student can do, in terms of a product, performance, or procedure, upon completion of the program of study.

The method of assessment for PSLOs is generally the culminating assessment task for the program. The culminating assessment for many programs is the externship. In extern, students are expected to demonstrate the skills and knowledge learned during the program and then apply those skills and knowledge in a workplace.

In these cases, the extern report on student performance is the data used to assess student performance against the learning outcome. For example, the medical assisting program has as its PSLO: Conduct a variety of diagnostic tests using equipment, materials, and techniques within the scope of practice. The method of assessment is the extern and assessment data is drawn from the report on student performance received from the extern site.

In Veterinary Technology, the PSLO is located in VT100: Upon completion of this program students will be able to execute all RVT tasks required in the veterinary clinical setting. The extern report from the clinical site provides student assessment in the following areas:

- conducting TPR & physical exam
- performing venipuncture
- performing injections
- performing restraint
- performing intravenous catheterization

These assessments are used for assessing the PSLO and are entered into eLumen.

**Institutional-Level SLOs (ISLOs)**
Institutional-level SLOs are comprised of the CCC core SLOs, which are critical thinking, information management and technical literacy, personal and professional development, communication skills, respect, and responsibility. They are evaluated during the faculty annual analysis of campus program outcomes, during the annual SLO assessment conducted by the Dean of Institutional Effectiveness, as well as formally during the program review process.

**Difference Between Course Objectives and Learning Outcomes**
A learning outcome specifies the knowledge skills and abilities a student is expected to have upon successful completion of an academic activity.

Learning objectives are generally more specific and, in the context of vocational education and training, often relate to specific skills. At CCC, the development of course-level and program-level SLOs often involve the “bundling” of specific competencies and/or objectives into a larger overarching statement of an outcome. This represents a “product,” “performance,” or “process” outcome that can be observed, measured, assessed, and demonstrated against predetermined criteria.

<table>
<thead>
<tr>
<th>Learning Objectives</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe skills or content</td>
<td>Describe overarching goals that a student will be able to demonstrate</td>
</tr>
<tr>
<td>Require basic thinking skills such as knowing,</td>
<td>Require the use of higher-level thinking skills, such as analysis, synthesis, and</td>
</tr>
<tr>
<td>comprehending, and understanding</td>
<td>evaluation</td>
</tr>
<tr>
<td>Do not necessarily result in a “product,” but can</td>
<td>Result in a “product” or “process” that can be observed, measured, assessed, and</td>
</tr>
<tr>
<td>be combined to do so</td>
<td>demonstrated against pre-determined criteria.</td>
</tr>
</tbody>
</table>

**Difference Between Achievement Data and Learning Data**
Grades for assignments or final course grades represent the overall performance of a student in relation to the whole assignment or the entire course. A grade is a succinct summation of the student’s overall performance.

An SLO assessment is specific to an element of essential skills or knowledge. SLO assessment provides student learning data specific to skills and knowledge. We can tell from SLO data what exactly students learned well and what they did not. Consequently, SLO data provides a much more granular picture of student learning and a better diagnosis of what worked well in the learning environment and what did not.
The diagnostic quality of SLO assessment data is what makes it valuable for educators. With SLO assessment data we are able to make adjustments to learning and teaching strategies and to resources targeted at improve specific learning outcomes.
CAN SLOs BE REVISED AND CHANGED? WHAT IS THE PROCESS?

New Programs
CSLOs and PSLOs are developed at the time of curriculum development for new programs.

Existing Program
CSLOs and PSLOs were initially developed by program directors and faculty for each program. New SLOs or modifications to existing SLOs and/or methods of assessment can be made during the program review process.

During the program review, program directors and faculty consider the SLO data. If all program directors agree to SLO changes, a global recommendation to change or adjust SLO assessment is noted in the program review. If the recommendation is supported by the Academics Team, the recommendation will go to the Education Committee for approval.

Reasons for Changing or Amending SLO Statements or Assessment Methods
Faculty may have any of a number of reasons for wanting to change or modify SLO statements or assessment methods, including:

- After program directors and faculty have reviewed SLO data, they may decide the data does not provide the diagnostic value anticipated. The view may be that a change to the SLO statement would yield better data for improvement purposes.
- In program review, program directors and faculty may decide they would like to focus on additional learning outcomes and focus improvement actions on the new SLOs, as well as the existing ones.
- After program directors and faculty have reviewed SLO data, they may decide the data does not provide the diagnostic value anticipated. The view may be that a change to the SLO assessment method would yield better data for improvement purposes.
ASSESSING STUDENT LEARNING OUTCOMES

Assessment Methods & Processes
The assessment method for SLOs is the performance, product, or process students undertake to demonstrate their learning against the student learning outcome.

For example, the PSLO for Massage Therapy is: *On completion of the Massage Therapy program student will perform massage procedures competently and safely in a professional environment.* To demonstrate skills and knowledge relating to this PSLO, students are required to complete an Exit Massage as a capstone assessment. Thus the Exit Massage is the assessment method for the program-level student learning outcome.

When undertaking the assessment method, students are assessed on a five-point scale using the following rubric:

- Students will use clear instructions, listen actively to clients, and use professional and technical language correctly.
- Students will use draping and positioning skills correctly to enhance the massage experience and put clients at ease.
- Students will assess client needs based on sound clinical reasoning.
- Students will demonstrate an understanding of body mechanics and grounding techniques.
- Students will demonstrate a variety of massage techniques and the ability to link techniques to assessment and client need.
- Students will apply the most appropriate techniques to positively impact treatment goals.
- Students will demonstrate skill in varying the rhythm and pacing of the massage linked to the assessment of client needs.
- Students will demonstrate skills in application of pressure.
- Students will demonstrate organization and structure in a comprehensive massage focused on assessment and fulfilling client needs.

In another example, the PSLO for the Pharmacy Technology program is: *Upon completion of this program students will be able to demonstrate pharmacy technician knowledge and skills in a working environment.*

The assessment method is the externship. When undertaking the assessment method, students are assessed on a five-point scale using the following rubric:

- On completion of this program, graduates will be able to demonstrate knowledge and skills in transcription.
- On completion of this program, graduates will be able to demonstrate knowledge and skills in prescription processing.
- On completion of this program, graduates will be able to demonstrate knowledge and skills in dosage calculation.
- On completion of this program, graduates will be able to demonstrate knowledge of trade and generic names.
• On completion of this program, graduates will be able to demonstrate professional communication, including use of professional terminology, listening and asking appropriate questions and communicating clearly with customers/patients and co-workers.

  ▪ Upon completion of this program, graduates will be able to demonstrate professional interpersonal relationships with customers and staff.

  ▪ Upon completion of this program, students will be able to demonstrate a positive work attitude.

  ▪ Upon completion of this program of study, students will be able to demonstrate proficiency and accuracy in the work environment.
ANALYZING SLO ASSESSMENT - METHODOLOGY

Analyzing Data to Identify Performance Gaps
The eLumen SLO assessment reports aggregate learning outcome data to provide a picture of student learning over time. The data need to be analyzed in terms of the following questions:

- Where in the program courses did students demonstrate high-level learning outcomes?
- Where in the program courses did students demonstrate levels of learning less than expected and/or less than students in CCC, overall?
- Does data show gaps between expected and demonstrated learning, or between demonstrated learning at particular campuses and that of CCC, as a whole?

<table>
<thead>
<tr>
<th>Performance Gaps</th>
<th>Types of Performance Gaps</th>
<th>Required Dialog &amp; Documentation</th>
<th>Possible Strategies</th>
</tr>
</thead>
</table>
| “Performance gap” is the term used to describe the gap between an expected performance on SLOs and the actual performance on the SLOs. | At this stage of CCC SLO assessment, performance gaps will be primarily gaps between performance data on a campus and performance data for the college for the same SLO. However, gaps may exist between performance in the current year and previous years. | Faculty minutes demonstrate:  
- Discussion of ISLO, PSLO, and CSLO performance data for their program  
- Identification of performance gaps  
- Development of improvement strategies (including the consideration of section improvement plans) | Improvements in classroom learning activities  
Changes to sequencing of learning  
Additional learning resources |

Other questions faculty could ask to identify performance gaps include:

- Was overall performance acceptable?
- What percentage of students did not demonstrate appropriate levels of performance?
- How does the outcome data compare to previous years?
- Are students more successful on some SLOs than others?
- Does the assessment method for the SLO work? Does the data provide meaningful information about student performance?
AT WHAT POINT DOES FACULTY UNDERTAKE SLO DATA ANALYSIS?

Onsite Programs
Faculty does an analysis of outcome data at a number of points in the SLO assessment cycle.

1. At the Completion of Every Course Section
As mentioned above, instructions on accessing courses and course rosters in eLumen and entering SLO performance data are available in the eLumen User Guide in the CCC Academics Document site: http://ccollege/ccc/academics/SitePages/Home.aspx.

After entering the SLO data for the section roster, the class instructor must complete the analysis and action section available for each section in eLumen. The focus of improvement strategy at this level should be on classroom learning and teaching: What is one thing the instructor could do to improve the outcomes for the particular learning outcome?

The analysis and action for each course section in eLumen is as follows:
To assist faculty in the analysis of their students’ performance, for each section in eLumen faculty have access to the following comparative data:

- Assessments for the same SLO in other sections at the same campus
- Assessments for the same SLO in all sections at all campuses

2. Mid-Year

At least once a year, program directors, assisted by the managers of the Student Success Centers (SSCs), run eLumen outcome reports for all SLOs in their program comparing current year performance with prior year, as well as comparing their campus SLO outcomes for their program with outcomes from the college, as a whole. The process for mid-year campus-based analysis and reporting is as follows:

- Using the *Program Director Report function and Course Group Report function*, Student Success Center managers, in conjunction with the program director, run two reports for each program on their campus:
  1. College-wide SLO results
  2. Campus-wide SLO results

- Using the Excel tool provided by Student Success Center managers, program directors develop the pro forma chart report for each program, comparing college and campus results for each course in the program.
- Student Success Center managers work with program directors, at least initially, to assist them with the analysis and identification of gaps. As discussed above, gaps include gaps between previous and current results or gaps between overall college performance and campus performance on the same SLO.
- Program Directors schedule consideration of SLO data and identification of gaps at Faculty meeting
- Student Success Center managers attend initial faculty meetings, if requested by the program director, to assist faculty with analysis.
- Faculty discussions and decisions about improvement strategies are recorded in faculty meeting minutes.
- Program directors document improvement strategies in their program Continuous Improvement Plans (CIPs).
- Student Success Center managers follow up and check program CIPs and faculty minutes to ensure that the dialogue and improvement strategies have been documented.
- Program directors provide a report to campus EMT. The discussion is to be documented in EMT minutes. The SSC are to liaise with campus deans to ensure the item is on the agenda.

The following is an example of the type of report for one course:
At What Point Does Faculty Undertake Data Analysis?

Example Only

### Medical Assisting Program

#### Course: MA10 Clinical Theory 1

1. Upon completion of this course, students will be able to understand the basic concepts and principles of the anatomy and physiology of various body systems (selected system).

### Campus Data

<table>
<thead>
<tr>
<th></th>
<th>0-2</th>
<th>3</th>
<th>4-5</th>
</tr>
</thead>
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<tr>
<td>2012</td>
<td>8.4%</td>
<td>8.6%</td>
<td>23.4%</td>
</tr>
<tr>
<td>2011</td>
<td>22.0%</td>
<td>19.3%</td>
<td>57.5%</td>
</tr>
</tbody>
</table>

### College Data

<table>
<thead>
<tr>
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<th>0-2</th>
<th>3</th>
<th>4-5</th>
</tr>
</thead>
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<tr>
<td>2012</td>
<td>16.4%</td>
<td>19.6%</td>
<td>46.4%</td>
</tr>
<tr>
<td>2011</td>
<td>44.0%</td>
<td>19.3%</td>
<td>57.5%</td>
</tr>
</tbody>
</table>

### ANALYSIS

#### Performance Gap

The performance gap analysis is to be completed at the faculty meeting where dialogue about learning outcomes and improvement strategies occurs and is documented in faculty minutes and program CIPs.

3. During Formal Program Review

Currently, program review is conducted for each program every three years. During the review process, program directors and faculty analyze all SLO assessment data recorded since the last review and undertake a detailed analysis of outcomes, SLO statements, and SLO assessment methods.

### Online Programs

1. **At the Completion of Every Course Section**

   As with onsite programs, faculty complete performance data for each roster of each section, as well as the analysis and action section.

2. **Mid-Year**

   The mid-year process is slightly different for online programs:
• Dean of Institutional Effectiveness runs the following two reports for each program and completes the GAP analysis.
  1. College-wide SLO results
  2. Online SLO results
• Deans of Schools review aggregated SLO data for program courses and gap analysis in conjunction with the Dean of Online Academics.
• Deans of School meet with online faculty to review data and devise improvement strategies.
• The improvement strategies are documented in online program CIPs.

3. During Formal Program Review

As with onsite programs, program review is conducted every three years. During the review process, program directors and faculty analyze all SLO assessment data recorded since the last review and undertake a detailed analysis of outcomes, SLO statements, and SLO assessment methods.
SERVICE AREAS STUDENT LEARNING OUTCOMES

Enrollment, Career & Graduate, and Student Finance Services
These service areas have as their SLOs the institutional-level SLOs:

- Critical Thinking
- Communication
- Information Management and Technical Literacy
- Personal and Professional Development
- Respect and Responsibility

Formal assessment of outcomes is conducted during the program review process for each service area.

Student Success Centers
Student Success Centers provide the following learning support to students:

- Mathematics skills support
- English skills support
- Using library resources
- Citing sources
- Navigating online general education courses

For each of these areas, the SSCs have student learning outcomes and the SSC academic coaches record learning outcome data at the end of each coaching session.

Evaluation of the SSC learning outcome is on an ongoing process, but formal assessment occurs during the program review process.
INSTITUTIONAL-LEVEL SLO REPORTS

At the end of each year, the Dean of Institutional Effectiveness compiles an overall institutional report on SLO assessment outcomes for the consideration of Executive Council prior to the planning and resource allocation process.
SLO ASSESSMENT & THE PLANNING AND RESOURCE ALLOCATION PROCESS

Student learning outcomes assessment, as part of program review in instructional programs and services, is also a part of the College’s institution-wide planning process. SLO assessment is ongoing, with many programs and courses conducting SLO assessments every six weeks. Immediate improvement actions are primarily targeted toward classroom teaching and learning, such as curriculum content sequencing, utilizing classroom resources more effectively, and classroom teaching techniques. In these cases, responsibility for implementing the improvement strategies resides with the instructor and the campus dean. The Home Office monitors and audits the data for consistency of data entry and for outcome improvements.

Higher-level global improvement actions that may arise out of SLO assessment, such as substantial equipment purchases and increased faculty, are managed through the review, planning, and resource allocation process.

Higher-level global improvement recommendations may arise through either of the following processes:

1. **Program Review**
   When a program comes due for review at the end of the three-year review cycle, faculty are required to provide a summative report of student performance and improvement actions taken over the reporting period. This report closes off the reporting period. The findings of the campus reports are included in the Program Review Executive Summary, considered by the Executive Council and, where required, recommendations are incorporated into the planning and budgeting process.

2. **Institutional SLO Reporting**
   At the end of each calendar year, the Dean of Institutional Effectiveness presents an SLO report for consideration by the Education Committee and, ultimately, the Executive Council. During this process, the Education Committee may make recommendations to the Executive Council for resources to support improved outcomes in one or more student learning outcomes.
COLLEGE SLO COMMITTEE

The College SLO Committee provides ongoing support to the SLO assessment implementation process and cultivates an SLO assessment culture at the campus level.

The committee is comprised of faculty and program directors from a variety of programs and services, including Student Success Center managers. Committee members act as key SLO contact points for faculty and staff seeking advice and assistance in SLO assessment, data analysis, and reporting.