Program SLOs

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Essential Questions to Answer:

- What is the goal of the program?
- How do you know that students can/have accomplished that goal? Or, what real world task can students complete that demonstrates whether or not they have met the goal?
Example 1:

- **Goal:** At the end of the program, students will have the necessary education to become a Certified Public Accountant.

- **Question:** What is a key task of a CPA?

- **Outcome:** Given a set of financial records, students will be able to audit the records to certify that they meet specific accounting standards.
Example 2

- **Goal:** To provide students with the necessary knowledge and training to be a teacher in an Early Childhood Program
- **Question:** How will students demonstrate adequate knowledge?
- **Outcome:** Students will write an academic essay that explores and explains methods for working with preschool age children.
Program SLOs Need Assessments

- Building the assessment tool into the SLO cuts down on the work.
- *Given a set of financial records*, students will be able to audit the records to certify that they meet specific accounting standards.
- Students will *write an essay in appropriate academic style* that explores and explains methods for working with preschool age children.
Vocabulary

- Assessment method: how you collect the evidence, direct or indirect, that will tell you about the quality of your students’ learning
- Direct evidence: tells you what your students know and can do
- Indirect evidence: reveals why and how a student learned
- Triangulation: using multiple methods to prove reliability of information
Choice of assessment matters

- Students value what we assess
- *How we assess matters as much as what we test*
Essential Questions to Ask:

- What do we want to learn from the assessment?
- Do we want to measure direct or indirect success?
- What do we think we will learn from the assessment?
- How do we think this assessment will help to improve teaching?
- What message will this assessment send to students about what we value in education/this program?
- What answers do we want to have, and how will we get those answers?
Make the process transparent

• Criteria for success must be open and public
• Involve students in the assessment process; they need to understand the reason behind the assessment process
Curriculum Alignment

- Curriculum and learning objectives are aligned or matched to ensure that students are provided appropriate learning opportunities in order to achieve the identified learning objectives or outcomes.

- **Program Assessment**: an ongoing process designed to monitor and improve student learning. Faculty develop explicit statements of what students should learn, verify that the program is designed to foster this learning, collect empirical data that indicate student attainment, and use these data to improve student learning. *Assessing Academic Programs in Higher Education* by Mary J. Allen
What is an Instructional Program?

- State / Governing Authority Authorized Degree or Certificate Program Award
  - [https://misweb.cccco.edu/webproginv/prod/invmenu.htm](https://misweb.cccco.edu/webproginv/prod/invmenu.htm)

- General Education Patterns or Certificate of Achievement
  - With a vocational certificate (SCANS)

- Developmental Instruction
  - Locally defined programs

- Discipline Pathways and Transfer Preparation
  - Locally defined programs

- Noncredit Instruction
Good Questions to ask when creating Program Outcomes and Instructional Activities

1. **Intended Outcomes** — What do students need to be able to do “out there” in life roles for which this program prepares them?

2. **Capstone Assessment Tasks** — What can students do in this program to show final evidence of the intended outcomes? 
   *If no capstone is available…*

3. **Courses** — What learning experiences (courses) are necessary to prepare the students?

4. **Prerequisites** — What must students be able to do before engaging in this learning?
# Program Assessment Example

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Courses</th>
<th>Capstone Assessment Tasks</th>
<th>Student Learning Outcomes</th>
</tr>
</thead>
</table>

![Diagram with arrows connecting the columns]
<table>
<thead>
<tr>
<th>Core Competency or College Goal</th>
<th>Program Outcome</th>
<th>CIS 200 Course Outcomes</th>
<th>Assessment Procedure and Criteria</th>
<th>Assessment Results and Use of results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking &amp; Problem Solving</td>
<td>Analyzes and designs solutions when presented with a business, math, or science problem according to specifications set by the department</td>
<td>Analyze given problems for specifications in terms of input, output, and processing. Design a solution to a given problem</td>
<td>For each problem students will correctly: Determine what is to be read, printed, and converted Complete a flowchart or algorithm Design test cases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outcome 1</td>
<td>Outcome 2</td>
<td>Outcome 3</td>
<td>Outcome 4</td>
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<tr>
<td>----------------</td>
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<tr>
<td>Course 1</td>
<td>I</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Course 2</td>
<td>R/D/P</td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course 3</td>
<td>M</td>
<td>R/D/P</td>
<td>R/D/P</td>
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</tr>
<tr>
<td>Course 4</td>
<td>M</td>
<td>I</td>
<td>R/D/P</td>
<td></td>
</tr>
<tr>
<td>Course 5</td>
<td></td>
<td>R/D/P</td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Course 6</td>
<td></td>
<td></td>
<td>M</td>
<td></td>
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</tbody>
</table>

I = Introduced  
R/D/P = Re-enforced / Developed / Practice  
M = Mastery Demonstrated
Examining SLOs using a matrix ensures that students have been introduced to the outcome, had formative feedback, and are summatively assessed concerning successful student learning.

<table>
<thead>
<tr>
<th>Course</th>
<th>Outcome I</th>
<th>Outcome 2</th>
<th>Outcome 3</th>
<th>Outcome 4</th>
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<tbody>
<tr>
<td>Course 1</td>
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</table>
A.S. Chemistry

Students will be able to:

1. Develop and use problems solving skills.
2. Interpret, predict and use chemical reactions.
3. Name and chemical compound.
4. Perform Laboratory methods, follow chemical procedure.
5. Maintain a lab notebook and write lab reports following a scientific method.

<table>
<thead>
<tr>
<th>Course</th>
<th>Program SLO 1</th>
<th>Program SLO 2</th>
<th>Program SLO 3</th>
<th>Program SLO 4</th>
<th>Program SLO 5</th>
</tr>
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<tbody>
<tr>
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<td>B ( I )</td>
<td>I</td>
<td>M</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
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<td>B</td>
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<tr>
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<td>M (M)</td>
<td>M</td>
<td>M</td>
<td>M</td>
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<tr>
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<td>M</td>
<td>M</td>
<td>M</td>
<td>B</td>
<td>M</td>
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<tr>
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<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
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</table>
How To Create an Assessment

- Align the assessment directly with the learning outcome
- Choose an assessment that would best test if students actually “get it”
- Choose the type of tool (direct/indirect) that would generate solid results
- Set standards/criteria that would be considered satisfactory results
Two Types of Assessment

- A “direct assessment” provides a concrete tool with which to gather data
- An “indirect assessment” relies on indicators to gather data.
Direct Assessment Methods

- Portfolios
- Capstones
- Performances
- Common assignments
- Course Management Programs
- Classroom Assessment
- Student Self-Assessment
- Local Tests
Portfolios

- Collections of student work (and sometimes other material such as transcripts, test scores, or performance reviews) intended to illustrate achievement of learning outcomes. The mantra is “collect, select, reflect, connect.”
Capstones

- A wide variety of culminating projects, assignments, performances, or even experiences, e.g., faculty-supervised community service, internships
Performances

- Activities, live or recorded, designed to demonstrate specific outcomes, e.g. a poster presentation, conduct of a class, a musical or theatrical performance, client counseling, facilitation of a group discussion, “think aloud” analysis of a text
Common Assignments

- Student work produced in response to a course assignment is examined for multiple purposes, e.g., to determine command of course material but also to assess writing skill, information literacy, critical thinking, etc.
  - “Common assignments”: the same assignment across multiple courses;
  - “Template assignments”: the same format but not identical assignment across multiple courses
  - “Secondary readings”: student work is examined “secondarily” for other qualities beyond command of course material.
Course Management Programs

- Software that allows faculty to set up chat rooms, threaded discussions, etc., and capture student responses
Classroom Assessment/Research

- An approach to assessment pioneered by K. Patricia Cross and Thomas A. Angelo; provides a large collection of techniques individual instructors can use in their classrooms to discover what students are learning – or not – and to make rapid adjustments.
- For example: compiling results from a rubric every time an assignment is turned in and adjusting the class based on the results
Student Self-Assessment

- The student demonstrates the ability to accurately self-assess a piece of work or performance, usually in relation to one or more outcomes and a set of criteria, e.g. rubrics.
Local Tests

- Tests designed in relation to the specific course, program, or institution’s curriculum and learning outcomes, as opposed to generic, commercially available tests. Can be cumulative (e.g. comprehensives in the major) or less encompassing but still cross-cutting. Format may vary; need not be multiple choice, as in most commercial tests.
Indirect Assessment Methods

- Surveys
- Interviews
- Focus groups
- Ethnographic research
Surveys

- Common method of gathering information from people on a wide variety of topics (personal characteristics, expectations, experience, attitudes, values, behaviors, perceptions, satisfaction), generally in the form of a questionnaire, which may be distributed in hard copy or online or – less often – administered by phone.
Interviews

- One-on-one conversations designed to elicit a variety of information; may range from highly structured (much like an orally conducted survey) to open-ended and exploratory.
Focus Groups

- Structured, in-depth, group discussions of specific topics, guided by a trained moderator and generally audiotaped, videotaped, or recorded by an assistant moderator.
Ethnographic Research

• Selected students serve as participant-observers, gathering information about learning and/or student experience through conversations with fellow students, observation, and reflection on their own experiences. Participant-observers meet regularly with faculty and/or staff conducting the study to refine questions, share findings, analyze them, and plan next steps.