Documenting Assessment Activities
for degree and certificate programs

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Upon completion of this workshop, participants should be able to

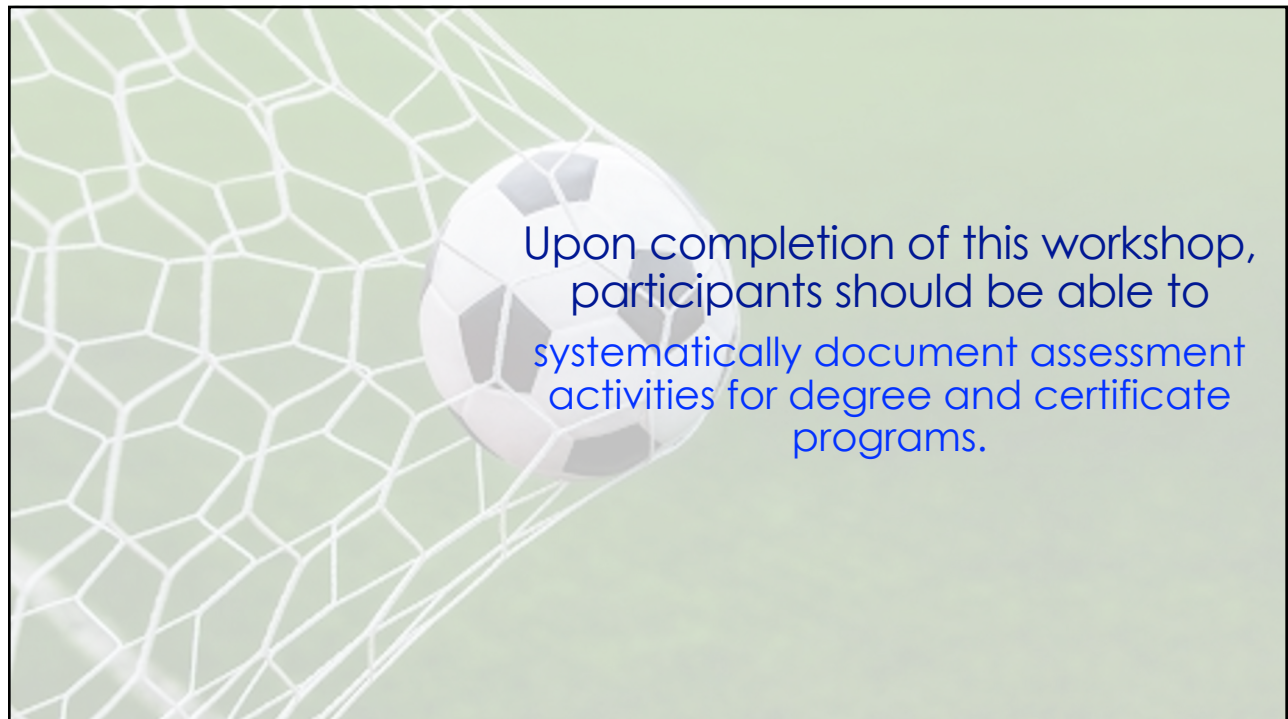systematically document assessment activities for degree and certificate programs.

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HLC Assessment Accreditation Criteria

4.B - Core Component 4.B
The institution engages in **ongoing assessment of student learning** as part of its **commitment to the educational outcomes of its students**.

1) The institution has effective processes for assessment of student learning and for achievement of learning goals in academic and cocurricular offerings.
2) The institution uses the information gained from assessment to improve student learning.
3) The institution's processes and methodologies to assess student learning reflect good practice, including the substantial participation of faculty, instructional and other relevant staff members.
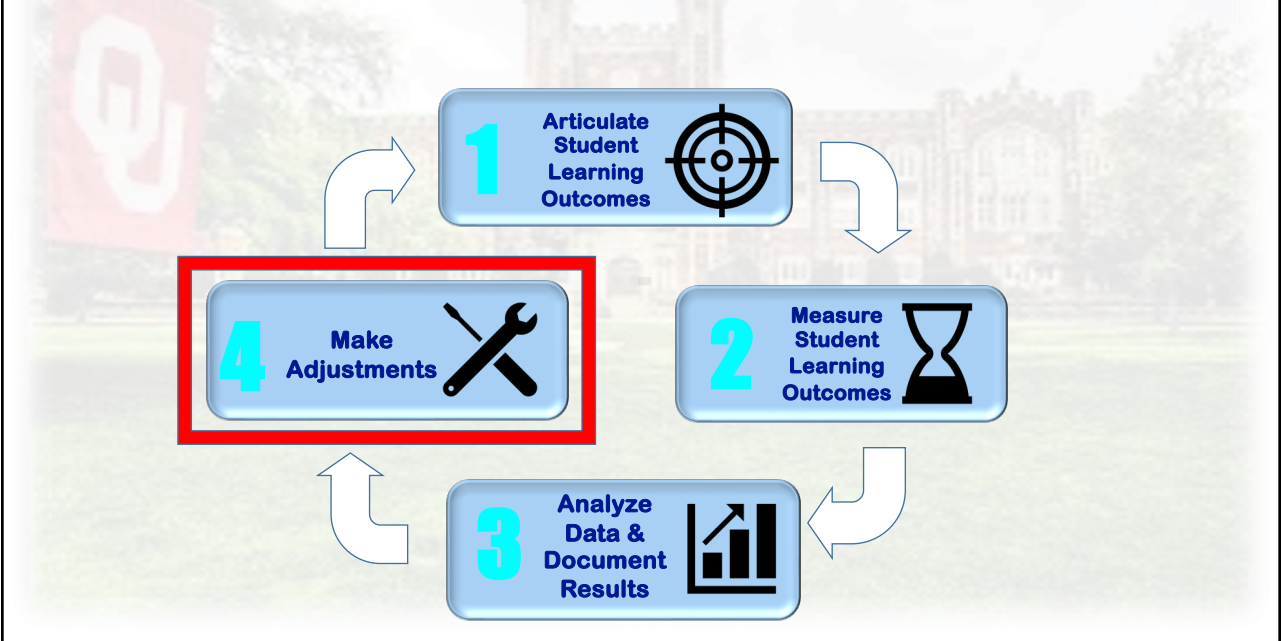
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Annual assessment reports required for…

- Each degree program (undergraduate, graduate, and professional)
- Each certificate program (undergraduate and graduate)
- Each degree and certificate program offered 100% online.
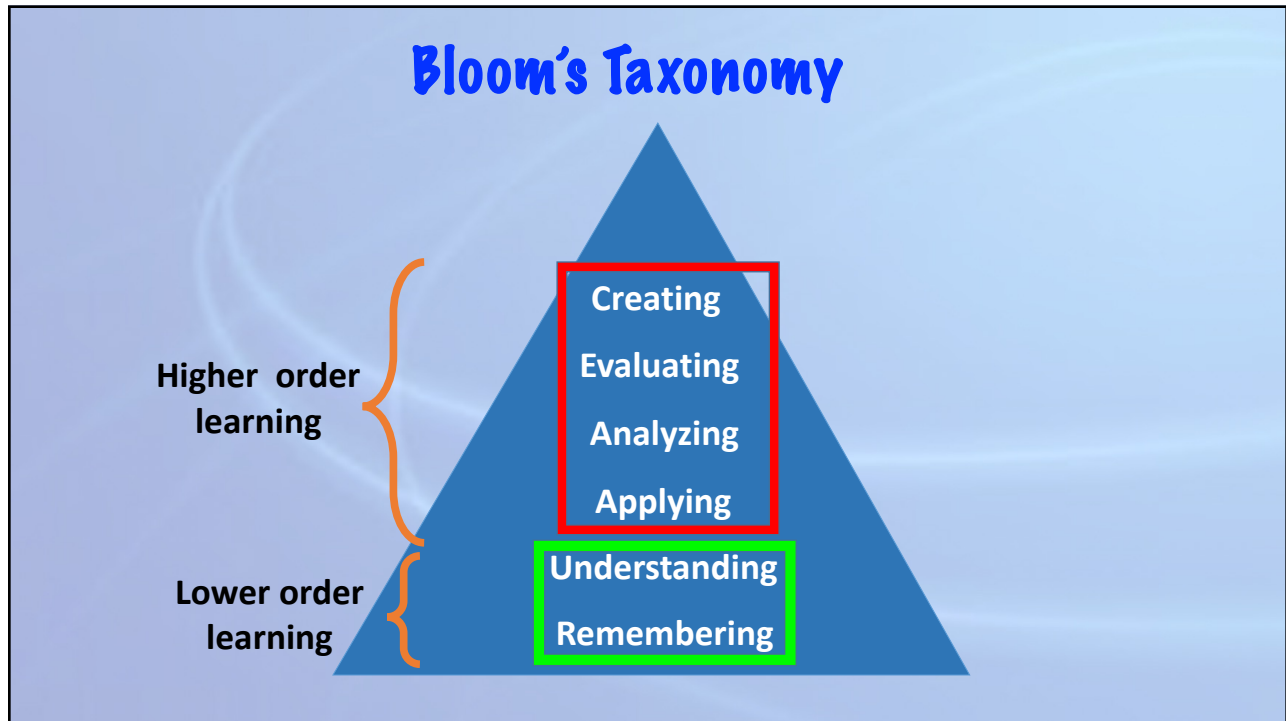
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Steps of OU Program Assessment Process

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STEP 1: Articulate Student Learning Outcomes (SLOs)

Key Question...

What do you want students to know and do by the time they graduate from your degree program?

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Bloom's Taxonomy

Higher order learning

Lower order learning

Creating

Evaluating

Analyzing

Applying

Understanding

Remembering

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Reviewing Sample Student Learning Outcomes

Graduates of our program will be familiar with various aspects of communication.

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Upon completion of the BS in Environmental Science program, students should be able to demonstrate effective written and oral communication.

Specifically, they should be able to:
- Clearly convey scientific concepts, research findings, and environmental issues using language that is understandable to diverse audiences, including policymakers, community members, and fellow scientists.
- Demonstrate limitations, uncertainties, and potential biases inherent in environmental science research, fostering trust and credibility with stakeholders.
- Foster collaboration and interdisciplinary exchange by effectively communicating with experts from various fields, facilitating knowledge sharing and innovative problem-solving.
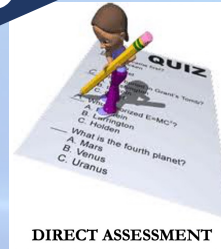
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STEP 2: Measure SLOs

WHERE?

SIMPLE CURRICULUM MAPPING

STUDENT LEARNING OUTCOMES	CORE COURSES			
	A	D	E	F
1	✓	✓	✓	✓
2		✓	✓	✓
3	✓			✓

HOW?

DIRECT ASSESSMENT

INDIRECT ASSESSMENT

Hint:
- *Undergraduate: Focus on **core courses** and other educational experiences **required of all students.***
- *Graduate: Center on culminating experiences AND processes that prepare students for culminating experiences.*

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Curriculum Map Template

| PROGRAM LEVEL STUDENT LEARNING OUTCOMES	CORE COURSES							
	1	2	3	4	5	6	7	8
Knowledge of Theories		I			A		A	M
Critical Thinking	I	I	A	A			A	M
Communication Skills	I	I		A	A	A	M	M
Quantitative Reasoning			I				M	M
Application of Theories	I				A	A		M
Problem Solving		I		A	A		M	M

MAPPING KEY:

I=Introduced   A=Advanced   M=Mastery

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Direct Assessments

…are "measurement" strategies that require students to demonstrate achievement levels related to program-specific learning outcomes.

- *Pre and posttests*
- *Multiple-choice tests**
- *Essays*
- *Portfolio evaluation*
- *Case studies*
- *Reflective journals*
- *Capstone projects*
- *Annual academic advisement*
- *Employer Surveys*
- *Research Projects*
- *Project Designs*
- *Poster presentation*
- *Internship or clinical evaluation*
- *Comprehensive or General exams*
- *Class projects (individual or group)*
- *Performance piece (e.g., musical recital)*
- *Theses/dissertations evaluation by a faculty committee*
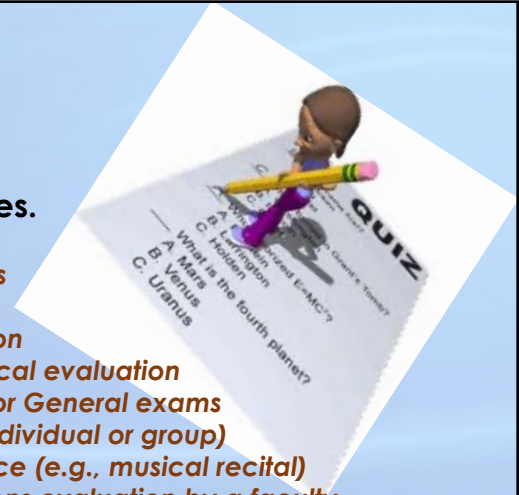
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*All the above methods, except for multiple-choice tests, require the use of rubrics to assess the quality of student performance.

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Indirect Assessments

…are reports of student "perceptions/opinions" regarding their learning.

- *Course Evaluations*
- *Transcripts*
- *End of Course Grades*
- *Interviews*
- *Focus Groups*
- *Student Surveys*

_____
*SLOs should primarily be assessed using direct assessments. Indirect assessments are simply used to augment results of the direct assessments but should not be used without direct methods.

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Reviewing details of the Assessment Methods

All students will score a mean of "B" and above in all courses at the end of the semester.

✗

Written Research Project: Each student enrolled in the Capstone Course (ENV 4233) will be required to develop a 10-15-page research project based on individual research topic of interest in Environmental Science.   Research projects will then be evaluated by faculty to determine the quality of each student's written project as well as student's knowledge and application of environmental science principles using a simple, generic rubric. Below are rubric scales:

6 = Exemplary *(>90%);* **5 = Excellent** *(80-89%),* **4 = Very Good** *(70-79%);*
3 = Adequate *(60-69%);* **2 = Weak** *(50-59%),* **1 = Insufficient** *(below 50%).*

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Reviewing details of the Assessment Methods *(cont.)*

All students will score a mean of "B" and above in all courses at the end of the semester.

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Presentation of Research Projects: Students are required to prepare a 10-15-minute presentation of their research projects to peers at the end of the semester. During the presentation, each student will be evaluated by other students and the faculty member on their organization/clarity, delivery, and grammar/mechanics, depth and accuracy of content, and presentation aids. The scales in the rubric used by both students and the faculty member will range from **1**=*Beginning*, **2**=*Developing*, **3**=*Proficient* and **4**=*Mastery*.

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STEP 3: Analyze & Interpret Student Performance

Key Questions

❑ What do the data show about your students' level of mastery of intended learning outcomes?

❑ Are there areas where students are outstanding? Are they consistently weak on certain skills?

❑ Are there areas where performance is good, but not outstanding, and you'd like to see better/higher performance?

Hint:
❖ *Assessment results should always be reported in aggregate.*

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Reviewing details of the Assessment Results

90% of students in the BA program scored "B" and above in all courses taken this semester.

Written Project: Analysis of student performance indicate that 16 of the 25 students enrolled in the capstone course scored at "Excellent" level (i.e., between 80%-89%) regarding their *knowledge and application of environmental principles* while 13 students scored at that same range on the *quality of the written research project*. In addition, 5 students scored between 70%-79% on the *quality of the written research project* whereas 3 students scored at the "Adequate" level (i.e., 60%-69%) on *knowledge and application of environmental principles*. Overall, students performed better on the *knowledge and application of environmental principles* than they did on *the quality of the written research project*.

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Reviewing details of the Assessment Results

90% of students in the BA program scored "B" and above in all courses taken this semester.

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Project Presentations were scored by both students and faculty based on *organization/clarity, delivery, grammar/mechanics, depth and accuracy of content*, and *presentation aids*. Each category was graded on a scale from *1=Beginning, 2=Developing, 3=Proficient* and *4=Mastery*. The average scores were:
   - **3.56** (organization/clarity),
   - **3.44** (delivery),
   - **3.0** (grammar/mechanics),
   - **2.4** (depth and accuracy of content) and
   - **3.3** (presentation aids).

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STEP 4: Use results to improve student learning

Key Questions
❑ What will you do to **improve** student learning?
❑ Which program elements should be:

Maintained?

Reinforced?

Strengthened?

Modified?

Discarded?

Hint:
❖ *Focus primarily on the **program curriculum**.*
❖ *Report BOTH what's been accomplished and recommendations along with action plans for what's yet to be done.*

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Reviewing details of the Use of Assessment Results

Since almost all students got a good grade in their courses, faculty are happy with the results. There is no need to make any changes.

❌

Although, overall, students performed better on the *knowledge and application of environmental principles* than they did on *the quality of the written research project,* faculty intend to develop new strategies to help students' performance better on both criteria next year. These include:

- ❖ **Other***: Encourage students to take advantage of the free tutoring services offered by the University Writing Center to boost their written proficiencies.*
- ❖ **Methods of Assessment:** *Incorporate more in-class presentations of projects to help enhance students' presentation skills.*

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Reviewing details of the Use of Assessment Results *(cont.)*

Since almost all students got a good grade in their courses, faculty are happy with the results. There is no need to make any changes.

❌

Although, overall, students performed better on the *knowledge and application of environmental principles* than they did on *the quality of the written research project,* faculty intend to develop new strategies to help students' performance better on both criteria next year. These include:

- ❖ **Other***: Encourage students to participate by presenting at the annual Undergraduate Research Symposium.*
- ❖ **Curriculum:** *Develop more group assignments in the course to help boost students' interactions.*
- ❖ **Methods of Assessment:** *Seek students' opinions using a survey and/or focus groups to gather information on other approaches faculty and the department could implement to boost students' presentation skills.*

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Gathering program assessment info from faculty...

1 Breakdown the program Student Learning Outcome (SLO) outcome into 3 to 4 *Performance Indicators (PIs).*

2 Align core courses to each PI
- ❖ Identify signature assignments/projects already being used in each course.
- ❖ Align signature assignments/projects with each PI.

3 Select a reasonable scale for determining student performance.

4 Seek recommendations and action plans for enhancing student learning and course curriculum.

5 Consolidate and synthesize information for the program.

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