

# Academic Program Assessment Report

**Assessment** is a term commonly used to encompass the process of gathering and using evidence to guide improvements.

SACSCOC requires that an institution "identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of seeking improvement based on analysis of the results".

**Be sure to SAVE your progress as you work!**

## Academic Program

Chemistry, B.S.

## Submission Due Date

2023-2024

## Assessment Coordinator Name

David Gardner

## Enter Assessment Coordinator Email

dgardner@lander.edu

## Program Goal

### Goal

#### Goal 1

**Program Goals** are broad and overarching statements about the skills, knowledge, and dispositions students are expected to gain by the end of their course of study (big picture). They support the Institution's Mission/Goals.

#### Program Goal

Goal #1 Prepare students well.

Prepared students possess a range of skills and knowledge.

#### Pillar of Success Supported

Graduates Who Are Gainfully Employed or Admitted to Graduate School

## Outcomes

### Outcome 1

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

#### What type of Outcome would you like to add?

Student Learning Outcome

**Enter Outcome**

Demonstrate overall understanding of chemistry. Students perform well on national assessment (used the Chemistry Major Field Test (MFT) published by ETS).

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Average score on MFT is 50th percentile or higher.

**Performance Target for "Partially Met"**

Average score on MFT between 25th and 49th percentile.

**Performance Target for "Not Met"**

Average score on MFT is below 25th percentile.

**Assessment Measure Used**

Chemistry Major Field Test (MFT) published by ETS.

**Frequency of Assessment**

MFT administered in every spring in capstone course (PSCI 499).

**Data Collected for this Timeframe (Results)**

Average percentile score for the 11 students taking this exam was 55th percentile.

**Score (Met=3, Partially Met=2, Not Met=1)**

3

**Comments/Narrative**

We have used the MFT for many years as it is nationally normed. However, it is an overall exam at the very end of the program. Thus, it can sometimes be nearly 3 years since a student will have learned a concept that is covered on this exam. This causes difficulty because while these data are easily collected, it is not clear how to use them to improve the program as the only percentile information is now associated with the overall score, not the individual subsections.

Previously, we had expressed a desire to move to exams created by the American Chemical Society (ACS) that can be given at the end of a course. During the 2022-2023 academic year, we had significant turnover in the department and college. We now have 4 new faculty members, a new interim dean, and a new interim provost. As a result, we made no progress towards updating and improving assessment goals.

A year ago, our plan was that 2022-2023 would be the last year we use the MFT. We are now putting significant focus to updating our program assessment. But it is unclear whether or not we can move to the ACS exams this year, or if we need one more year with the MFT.

**Resources Needed to Meet/Sustain Results**

We will need funding to purchase ACS exams across all disciplines of chemistry. We will also need to work with administration to resolve the logistical challenges needed to administer the exams outside of the regularly scheduled lecture times. (The exams are longer than the standard lecture length)

**Explanation of How Resources Will Be Used**

Exams will be purchased for each student enrolled. To give exams for the students enrolled in all of the possible courses will cost \$1415.30. (This includes shipping)

**Outcome 2**

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Student Learning Outcome

**Enter Outcome**

Demonstrate overall understanding of chemistry. Students perform well in undergraduate research and on internships.

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Above 2.0 on department rubrics (content questions).

**Performance Target for "Partially Met"**

Between 1.5 and 1.9 on department rubrics (content questions).

**Performance Target for "Not Met"**

Below 1.5 on department rubrics (content questions).

**Assessment Measure Used**

Departmental rubric for research/internships

**Frequency of Assessment**

End of every semester in which students enroll in a research class or an internship.

**Data Collected for this Timeframe (Results)**

No data were collected

**Score (Met=3, Partially Met=2, Not Met=1)**

1

**Comments/Narrative**

We did not meet our target for this outcome.

Anecdotally, we believe that research and internships are a valuable part of our program and should continue to be utilized. However, as indicated last year, students are increasingly presenting in venues that make data collection difficult. And in 2022-2023, we failed to collect data for this outcome.

The problem of data collection for this outcome is one of many reasons we are putting significant focus into updating and overhauling our system of program assessment during the 2023-2024 academic year.

**Resources Needed to Meet/Sustain Results**

At this point, we don't know what we would need to improve the data collection on this. Figuring out what resources we need will be one of the tasks for our efforts this year.

We need training to help us figure out how we want to progress. The Chronicle of Higher Education

offers a variety of training options for faculty, some of it free, some of it for a fee. Having access to \$2000 to cover potential training costs will likely be helpful.

### Explanation of How Resources Will Be Used

We've had a lot of turnover. And our previous program assessment was not helping us improve. Training will help us better understand program assessment and make it a more robust and useful process.

## Outcome 3

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

### What type of Outcome would you like to add?

Student Learning Outcome

### Enter Outcome

Demonstrate overall understanding of chemistry. Students present good senior seminar presentations.

### Timeframe for this Outcome

2022-2023

### Performance Target for "Met"

Summary score above 2.0 on seminar evaluation form (content questions).

### Performance Target for "Partially Met"

Summary score between 1.5 and 1.9 on seminar evaluation form (content questions).

### Performance Target for "Not Met"

Summary score below 1.5 on seminar evaluation form (content questions).

### Assessment Measure Used

Content-related items from seminar evaluation form of senior seminar presentations.

### Frequency of Assessment

Every spring in capstone course (PSCI 499).

### Data Collected for this Timeframe (Results)

The average score for the 14 students on the content questions on rubric was 1.82

### Score (Met=3, Partially Met=2, Not Met=1)

2

### Comments/Narrative

We only partially met this outcome. This year's results do not directly compare to previous years because of modifications to the rubric.

We have structural problems we must resolve with regards to this presentation. We had been advocating for conference-like presentation setting for students in which we would hold the event on a

Saturday. There was significant pushback from the department against such an event. In addition, by having the students give presentation during the PSCI 499 class time, we had very limited faculty input.

Furthermore, we are now realizing that large chunks of our program evaluation are highly dependent on the individual teaching the class. This is a not a criticism of whoever is teaching the class. Rather, this is acknowledgement that we have created a program assessment metric which is not standardized and validated across multiple reviewers. When there are large numbers of faculty evaluating the presentations, the variance between individuals gets averaged out. However, when there is faculty participation is limited, the presentations are being scored by just two or three faculty. And in this case, lack of clarity of what we are trying to achieve with the presentations combined with lack of standardization across faculty using the instrument cause significant variation.

This is another reason we are putting significant focus during the 2023-2024 year on overhauling and updating our program assessment.

#### **Resources Needed to Meet/Sustain Results**

At this point, we don't know what we would need to improve the data collection on this. Figuring out what resources we need will be one of the tasks for our efforts this year.

We need training to help us figure out how we want to progress. The Chronicle of Higher Education offers a variety of training options for faculty, some of it free, some of it for a fee. Having access to \$2000 to cover potential training costs will likely be helpful.

#### **Explanation of How Resources Will Be Used**

We've had a lot of turnover. And our previous program assessment was not helping us improve. Training will help us better understand program assessment and make it a more robust and useful process.

## **Outcome 4**

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Student Learning Outcome

**Enter Outcome**

Demonstrate scientific communication skills. Students present research/internship well.

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Above 2.0 on department rubrics (presentation questions).

**Performance Target for "Partially Met"**

Between 1.5 and 1.9 on department rubrics (presentation questions).

**Performance Target for "Not Met"**

Below 1.5 on department rubrics (presentation questions)

**Assessment Measure Used**

Departmental rubric for research/internship.

**Frequency of Assessment**

End of every semester in which students enroll in a research class or an internship.

**Data Collected for this Timeframe (Results)**

No data were collected

**Score (Met=3, Partially Met=2, Not Met=1)**

1

**Comments/Narrative**

We did not meet our target for this outcome.

Anecdotally, we believe that research and internships are a valuable part of our program and should continue to be utilized. However, as indicated last year, students are increasingly presenting in venues that make data collection difficult. And in 2022-2023, we failed to collect data for this outcome.

The problem of data collection for this outcome is one of many reasons we are putting significant focus into updating and overhauling our system of program assessment during the 2023-2024 academic year.

**Resources Needed to Meet/Sustain Results**

At this point, we don't know what we would need to improve the data collection on this. Figuring out what resources we need will be one of the tasks for our efforts this year.

We need training to help us figure out how we want to progress. The Chronicle of Higher Education offers a variety of training options for faculty, some of it free, some of it for a fee. Having access to \$2000 to cover potential training costs will likely be helpful.

**Explanation of How Resources Will Be Used**

We've had a lot of turnover. And our previous program assessment was not helping us improve. Training will help us better understand program assessment and make it a more robust and useful process.

**Outcome 5**

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Student Learning Outcome

**Enter Outcome**

Demonstrate scientific communication skills. Students have a good mock interview.

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Summary score on mock interview evaluation forms above 2.0.

**Performance Target for "Partially Met"**

Summary score on mock interview evaluation forms between 1.5 and 1.9.

**Performance Target for "Not Met"**

Summary score on mock interview evaluation forms below 1.5.

**Assessment Measure Used**

Rubric for senior seminar (PSCI 499 mock interviews)

**Frequency of Assessment**

Every spring in capstone course (PSCI 499).

**Data Collected for this Timeframe (Results)**

Average was 1.78 for the 14 students.

**Score (Met=3, Partially Met=2, Not Met=1)**

2

**Comments/Narrative**

We partially met this outcome.

The feedback we are getting from the students is that PSCI 499 is too late to be doing the mock interview process. Most of them have already interviewed for jobs/graduate school by the time this activity occurs.

In addition, there are pieces of the mock interview that occur in earlier seminar classes (CHEM 197, 198, 199). Thus is it really worth spending the class time on it in PSCI 499. Going forward, we are not sure if this particular outcome should continue to be included in program assessment, or if PSCI 499 is the right class to be assessing it in.

Figuring out what we want to do with the mock interviews is yet another reason we are putting significant focus this year on program assessment.

**Resources Needed to Meet/Sustain Results**

At this point, we don't know what we would need to improve the data collection on this or if we even wish to continue using it. Figuring out what resources we need will be one of the tasks for our efforts this year.

We need training to help us figure out how we want to progress. The Chronicle of Higher Education offers a variety of training options for faculty, some of it free, some of it for a fee. Having access to \$2000 to cover potential training costs will likely be helpful.

**Explanation of How Resources Will Be Used**

We've had a lot of turnover. And our previous program assessment was not helping us improve. Training will help us better understand program assessment and make it a more robust and useful process.

**Outcome 6**

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Student Learning Outcome

**Enter Outcome**

Demonstrate scientific communication skills. Students present their senior seminar well.

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Summary score above 2.0 on seminar evaluation forms (presentation items).

**Performance Target for "Partially Met"**

Summary score between 1.5 and 1.9 on seminar evaluation forms (presentation items).

**Performance Target for "Not Met"**

Summary score below 1.5 on seminar evaluation forms (presentation items).

**Assessment Measure Used**

Presentation-related items from evaluation form of senior seminar presentations.

**Frequency of Assessment**

Every spring in capstone course (PSCI 499).

**Data Collected for this Timeframe (Results)**

Average score for 14 students was 1.80

**Score (Met=3, Partially Met=2, Not Met=1)**

2

**Comments/Narrative**

We only partially met this outcome. This year's results do not directly compare to previous years because the rubric was modified.

We have structural problems we must resolve with regards to this presentation. We had been advocating for conference-like presentation setting for students in which we would hold the event on a Saturday. There was significant pushback from the department against such an event. In addition, by having the students give presentation during the PSCI 499 class time, we had very limited faculty input.

Furthermore, we are now realizing that large chunks of our program evaluation are highly dependent on the individual teaching the class. This is not a criticism of whoever is teaching the class. Rather, this is acknowledgement that we have created a program assessment metric which is not standardized and validated across multiple reviewers. When there are large numbers of faculty evaluating the presentations, the variance between individuals gets averaged out. However, when there is faculty participation is limited, there presentations are being scored by just two or three faculty. And in this case, lack of clarity of what we are trying to achieve with the presentations combined with lack of



standardization across faculty using the instrument cause significant variation.

This is another reason we are putting significant focus during the 2023-2024 year on overhauling and updating our program assessment.

### **Resources Needed to Meet/Sustain Results**

At this point, we don't know what we would need to improve the data collection on this. Figuring out what resources we need will be one of the tasks for our efforts this year.

We need training to help us figure out how we want to progress. The Chronicle of Higher Education offers a variety of training options for faculty, some of it free, some of it for a fee. Having access to \$2000 to cover potential training costs will likely be helpful.

### **Explanation of How Resources Will Be Used**

We've had a lot of turnover. And our previous program assessment was not helping us improve. Training will help us better understand program assessment and make it a more robust and useful process.

## **Goal Summary**

### **Goal Summary/Comments**

This was our fifth year using this particular Goal #1. This last academic year revealed many problems and short-comings in our process that we must address. We will be putting significant focus and effort into overhauling and updating our program assessment as it relates to goal #1.

In particular we must address:

- 1) Moving away from the MFT as an externally normed exam to indicate student content knowledge. Because of a variety of factors, including the very long time between when students would first learn the material and when they take the exam, this exam does not provide us with data that are useful for improving program performance.
- 2) We need a more effective way of collecting data regarding student research/internships. Our current process is ill-suited for the current situation in which students present in a wide range of venues, and frequently have limited faculty present. In this past year, we failed to successfully collect data from research or internships.
- 3) We must resolve how we want to handle mock interviews. PSCI 499 may not be the best option for it.
- 4) We must resolve low participation in the student seminar process. The lack of clarity about what we are trying to accomplish combined with low faculty involvement means that the data we collect are highly variant from year to year.

Overall, we met 1 outcome, partially met 3 outcomes, and did not meet 2 other outcomes because of lack of data.

### **Changes Made/Proposed Related to Goal**

We are putting significant focus and effort this year into major rethinking of program assessment. The system we have been using for the last 5 years is not helping us improve.

### **Upload Rubrics/Other Files**

PSCI paper Rubric.docx

Mock Interview Rubric.pdf

## **Goal 2**

**Program Goals** are broad and overarching statements about the skills, knowledge, and dispositions students are expected to gain by the end of their course of study (big picture). They support the Institution's Mission/Goals.

### **Program Goal**

Goal #2: Build professional networks.

Strong linkages with our alumni, professional scientific community, employers, graduate schools, and local K-12 schools is vital to our success.

Building strong networks directly impacts pillars 1, 2, 3, 4, 5, 6, and 10. Since the form does not allow selection of more than one pillar, here is the argument for additional pillars:

Pillar #1: High-Demand, Market Driven Programs. By connecting to both the K-12 schools and employers/graduate schools, the Department will be able to keep our programs highly relevant to meet the demand of potential students as well as match the needs of prospective employers/graduate schools who will hire/admit our graduates.

Pillar #2: Selective, Competitive Recruitment and Enrollment of Ambitious and Talented Students. Developing connections with K-12 schools will help to build pipelines for us to identify, recruit, and enroll talented and ambitious students.

Pillar #3: Robust Student Experience. By cultivating connections, we will be better able to identify meaningful opportunities outside of the classroom for our students related to training (i.e. internships and research) as well as service/fun activities such as doing school outreach programs.

Pillar #4: Graduates Who Are Gainfully Employed or Admitted to Graduate School. Developing connections with employers/graduate schools will enhance our ability to ensure students are gainfully employed/admitted to graduate school.

Pillar #5: Advancement Activities Leveraged to Further University's Mission. Developing connections with employers and alumni enhances the University's ability to identify and secure funding from chemistry related sources.

Pillar #6: Engaged and Supportive Alumni. Developing our own connections with alumni perfectly aligns with the University's efforts.

Pillar #10: High-Valued Community Partner. Developing connections with the community is the only mechanism through which we can become highly valued.

### **Pillar of Success Supported**

Highly-Valued Community Partner

## **Outcomes**

### **Outcome 1**

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

## Operational Outcome

### Enter Outcome

Total number of network contact events. (How many network contact events?)

### Timeframe for this Outcome

2022-2023

### Performance Target for "Met"

Six or more events per year.

### Performance Target for "Partially Met"

Between three and five network contact events per year.

### Performance Target for "Not Met"

Less than three network contact events per year.

### Assessment Measure Used

Counted events

### Frequency of Assessment

Annually

### Data Collected for this Timeframe (Results)

See below

### Score (Met=3, Partially Met=2, Not Met=1)

1

### Comments/Narrative

We made no attempt to meet this outcome and plan to replace it when we put our focus on overhauling our program assessment.

### Resources Needed to Meet/Sustain Results

None. We are getting rid of this goal

### Explanation of How Resources Will Be Used

NA

## Outcome 2

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

### What type of Outcome would you like to add?

Operational Outcome

### Enter Outcome

Diversity of network contact events. (Are we contacting each network?)

### Timeframe for this Outcome

2022-2023

**Performance Target for "Met"**

All five networks are contacted.

**Performance Target for "Partially Met"**

Three or four networks are contacted.

**Performance Target for "Not Met"**

Less than three networks are contacted.

**Assessment Measure Used**

Counted

**Frequency of Assessment**

Annually

**Data Collected for this Timeframe (Results)**

We had some virtual contacts with alumni.

**Score (Met=3, Partially Met=2, Not Met=1)**

1

**Comments/Narrative**

We made no attempt to meet this outcome and plan to replace it when we put our focus on overhauling our program assessment.

**Resources Needed to Meet/Sustain Results**

none. We plan to replace this goal

**Explanation of How Resources Will Be Used**

NA

### Outcome 3

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Operational Outcome

**Enter Outcome**

Quality of network contact events. (Do we have meaningful network contacts?)

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Two or more network contact events are considered meaningful based on program rubric to evaluate quality.

**Performance Target for "Partially Met"**

One network contact event is considered meaningful based on program rubric to evaluate quality.

**Performance Target for "Not Met"**

No network contact events are considered meaningful based on program rubric to evaluate quality.

**Assessment Measure Used**

Counted events

**Frequency of Assessment**

Annually

**Data Collected for this Timeframe (Results)**

See below.

**Score (Met=3, Partially Met=2, Not Met=1)**

1

**Comments/Narrative**

We made no attempt to meet this outcome and plan to replace it when we put our focus on overhauling our program assessment.

**Resources Needed to Meet/Sustain Results**

None. we plan to replace this goal

**Explanation of How Resources Will Be Used**

NA

## Goal Summary

**Goal Summary/Comments**

We developed this goal shortly before COVID. However, we never fully embraced it. At this point, based on the results for the last few years, we put no emphasis in actually achieving these goals.

We made no progress in 2022-2023 towards overhauling our program assessment. During the past year, we had significant turnover in the department and college. We now have 4 new faculty members, a new interim dean, and a new interim provost. As a result, we made no progress towards updating and improving assessment goals.

**Changes Made/Proposed Related to Goal**

We plan to eliminate this goal and will use the 2023-2024 academic year to develop a new one.

**Upload Rubrics/Other Files**

### Goal 3

**Program Goals** are broad and overarching statements about the skills, knowledge, and dispositions students are expected to gain by the end of their course of study (big picture). They support the Institution's Mission/Goals.

**Program Goal**

Goal #3: Be proactive in recruitment.

Engaging with prospective students will help us recruit and enroll talented students into our programs.

**Pillar of Success Supported**

Selective, Competitive Recruitment and Enrollment of Ambitious and Talented Students

## Outcomes

## Outcome 1

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Operational Outcome

**Enter Outcome**

Total number of program recruitment events.

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Two or more program recruitment events per year.

**Performance Target for "Partially Met"**

One program recruitment event per year.

**Performance Target for "Not Met"**

No program recruitment events during the year.

**Assessment Measure Used**

Counted events

**Frequency of Assessment**

Annually

**Data Collected for this Timeframe (Results)**

See below.

**Score (Met=3, Partially Met=2, Not Met=1)**

1

**Comments/Narrative**

We made no attempt to meet this outcome and plan to replace it when we put our focus on overhauling our program assessment.

**Resources Needed to Meet/Sustain Results**

none.

**Explanation of How Resources Will Be Used**

NA

## Outcome 2

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge,

skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Operational Outcome

**Enter Outcome**

Location diversity of program recruitment events.

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Both on and off-campus program recruitment events.

**Performance Target for "Partially Met"**

Only one type of program recruitment event.

**Performance Target for "Not Met"**

No program recruitment events.

**Assessment Measure Used**

Counted events

**Frequency of Assessment**

Annually

**Data Collected for this Timeframe (Results)**

See below.

**Score (Met=3, Partially Met=2, Not Met=1)**

1

**Comments/Narrative**

We made no attempt to meet this outcome and plan to replace it when we put our focus on overhauling our program assessment.

**Resources Needed to Meet/Sustain Results**

none

**Explanation of How Resources Will Be Used**

NA

### Outcome 3

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention,

employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Operational Outcome

**Enter Outcome**

Quality of program recruitment events.

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Two or more program recruitment events are considered meaningful based on program rubric to evaluate quality.

**Performance Target for "Partially Met"**

One program recruitment event is considered meaningful based on program rubric to evaluate quality.

**Performance Target for "Not Met"**

No program recruitment events are considered meaningful based on program rubric to evaluate quality.

**Assessment Measure Used**

Counted events

**Frequency of Assessment**

Annually

**Data Collected for this Timeframe (Results)**

See below

**Score (Met=3, Partially Met=2, Not Met=1)**

1

**Comments/Narrative**

We made no attempt to meet this outcome and plan to replace it when we put our focus on overhauling our program assessment.

**Resources Needed to Meet/Sustain Results**

none

**Explanation of How Resources Will Be Used**

NA

## Outcome 4

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**



**What type of Outcome would you like to add?**

Operational Outcome

**Enter Outcome**

Participation in Admissions recruitment events.

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Program participates in all open houses and offers class space for all Bearcat for a Day events.

**Performance Target for "Partially Met"**

Program participates in either all Open Houses or all Bearcat for a Day events, but not both.

**Performance Target for "Not Met"**

Program does not participate in Open Houses and does not participate in Bearcat for a Day events.

**Assessment Measure Used**

Counted events

**Frequency of Assessment**

Annually

**Data Collected for this Timeframe (Results)**

Participated in all events

**Score (Met=3, Partially Met=2, Not Met=1)**

3

**Comments/Narrative**

This is outcome is easy to meet. It is simply to remind us of the importance of participating with University recruitment efforts.

We plan to replace this goal in the next cycle.

**Resources Needed to Meet/Sustain Results**

none

**Explanation of How Resources Will Be Used**

N/A

## Goal Summary

**Goal Summary/Comments**

We developed this goal shortly before COVID. However, we never fully embraced it. At this point, based on the results for the last few years, we put no emphasis in actually achieving these goals.

We made no progress in 2022-2023 towards overhauling our program assessment. During the past year, we had significant turnover in the department and college. We now have 4 new faculty members, a new interim dean, and a new interim provost. As a result, we made no progress towards updating and improving assessment goals.

**Changes Made/Proposed Related to Goal**

We plan to eliminate this goal and will use the 2023-2024 academic year to develop a new one.

**Upload Rubrics/Other Files**

## Goal 4

**Program Goals** are broad and overarching statements about the skills, knowledge, and dispositions students are expected to gain by the end of their course of study (big picture). They support the Institution's Mission/Goals.

**Program Goal**

To comply with Program Productivity standards as defined by the South Carolina Commission on Higher Education.

**Pillar of Success Supported**

High-Demand, Market-Driven Programs

## Outcomes

### Outcome 1

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Operational Outcome

**Enter Outcome**

Major Enrollment

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Using a five-year rolling average, the number of students enrolled in the major (a) for Baccalaureate programs is greater than or equal to 12.5, (b) for Master's/First Professional is greater than or equal to 6.

**Performance Target for "Partially Met"**

Not Applicable

**Performance Target for "Not Met"**

Using a five-year rolling average, the number of students enrolled in the major (a) for Baccalaureate programs is less than 12.5 (b) for Master's/First Professional is less than 6.

**Assessment Measure Used**

Enrollment and Graduation data extracted from Banner

**Frequency of Assessment**

Annually

**Data Collected for this Timeframe (Results)**

**Score (Met=3, Partially Met=2, Not Met=1)**

68.2

3

**Comments/Narrative**

See below.

**Resources Needed to Meet/Sustain Results**

N/A

**Explanation of How Resources Will Be Used**

N/A

## Outcome 2

**Outcomes** are specific, **measurable** statements that reflect the broader goals.

Academic Programs are required to develop **Student Learning Outcomes**, which describe knowledge, skills, and values that students are expected to gain as a result of their educational experiences.

Academic Programs may also develop **Operational Outcomes**, which describe the level of performance of an operational aspect of a program or office (ex. graduation rates, retention, employment data).

**Most goals have at least two outcomes measured.**

**What type of Outcome would you like to add?**

Operational Outcome

**Enter Outcome**

Completions (Degrees Awarded)

**Timeframe for this Outcome**

2022-2023

**Performance Target for "Met"**

Using a five-year rolling average, the number of degrees awarded (a) for Baccalaureate programs is greater than or equal to 8, (b) for Master's/First Professional is greater than or equal to 3.

**Performance Target for "Partially Met"**

N/A

**Performance Target for "Not Met"**

Using a five-year rolling average, the number of degrees awarded (a) for Baccalaureate programs is less than 8 (b) for Master's/First Professional is less than 3.

**Assessment Measure Used**

Enrollment and Graduation data extracted from Banner

**Frequency of Assessment**

Annually

**Data Collected for this Timeframe (Results)**

10.8

**Score (Met=3, Partially Met=2, Not Met=1)**

3

**Comments/Narrative**

See below.

**Resources Needed to Meet/Sustain Results**

N/A

**Explanation of How Resources Will Be Used**

N/A

## **Goal Summary**

**Goal Summary/Comments**

Three years ago, we did not meet the goal related to degree completion as our average completion was only 7.8 and not the required 8.0. However, as expected the number of majors that we graduate is increasing. Graduation number is a lagging indicator compared to program enrollment. Last year our average degree completion number jumped up to 10.0. This year, our number increased again to 10.8. Based on the enrollment in required lower-level courses right now, we expect that that are program productivity numbers will remain good. Likewise, the overall enrollment at the university level remains strong.

**Changes Made/Proposed Related to Goal**

Currently, we have no proposed changes specifically related to program productivity. The COVID pandemic impact on the educational preparation for our incoming students is not yet clear. Further, we are not yet sure how the pandemic will impact broader trends related to students seeking higher education and careers in the sciences. Yes, there is a national trend to stagnating and even falling enrollment. However, the enrollment numbers for the University as a whole continue to increase, so we are cautiously optimistic that our productivity numbers in chemistry will stay healthy.

We will continue to monitor the situation with regards to program productivity.

**Upload Rubrics/Other Files**

**Dean's Email Address**

jyates1@lander.edu

**Approved by Dean?**

**Signature of Dean**

**Comments from Dean's Review**