

# 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**

Data Science, B.S.

**Submission Year**

2022-2023

**Assessment Coordinator Name**

Farha Ali

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## 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

Students graduating with a B.S. in Data Science will demonstrate an ability to apply computing concepts to use, manipulate, and analyze data.

#### 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?**

Student Learning Outcome

**Enter Outcome**

Students will be able to competently perform programming tasks in Data Science programming languages.

**Timeframe for this Outcome**

2023 - 2024 and 2024 - 2025

**Performance Target for "Met"**

70% or more of students in each of DSCI 330, DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on programming-related components of the final project assessment rubric.

**Performance Target for "Partially Met"**

The target will be consider to be partially met, if it is neither met nor not met.

**Performance Target for "Not Met"**

Less than 60% of students at least one of DSCI 330, DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on programming-related components of the final project assessment rubric.

**Assessment Measure Used**

Relevant components of the final project assessment rubric.

**Frequency of Assessment**

During each offering of DSCI 330, DSCI 340, DSCI 440, and DSCI 499

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

N/A. This being the second year of this program these courses have not been taught yet.

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

No comment. This is the second year of this program and data have yet to be collected.

**Resources Needed to Meet/Sustain Results**

Although these courses have not been taught yet but from the year 2023-2024 we will need a data science faculty member to support these upper level courses and other program needs. We request a tenure track faculty position to support data science program and teach upper level data science courses. Our estimate is \$94K/year (approximately \$72K for the salary and \$22K for other employee benefits).

**Explanation of How Resources Will Be Used**

The faculty member hired to support data science program will be responsible for the following:

1. To develop and teach upper level data science courses
2. To mentor and advise students majoring un data science
3. To represent data science program in open houses and other admission activities
4. To ensure that the information available on Lander's website and catalog regarding the data science program is accurate and up to date
5. The ensure that the data science program is assessed annually, data is collected from the designated classes, and collected data is analyzed and properly reported in annual assessment report
6. To ensure that the data science courses are regularly reviewed and updated as needed

**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**

Students will demonstrate an understanding of the issues surrounding the acquisition, storage, and use of large data sets.

**Timeframe for this Outcome**

2023 - 2024 and 2024 - 2025

**Performance Target for "Met"**

70% or more of students in each of DSCI 330, DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on data acquisition and preprocessing components of the final project assessment rubric.

**Performance Target for "Partially Met"**

The target will be consider to be partially met, if it is neither met nor not met.

**Performance Target for "Not Met"**

Fewer than 60% of students in one or more of DSCI 330, DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on data acquisition and preprocessing components of the final project assessment rubric

**Assessment Measure Used**

Data acquisition and preprocessing components of the final project assessment rubric.

**Frequency of Assessment**

During each offering of DSCI 330, 340, 440 and 499

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

N/A. Data not yet available

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

**Comments/Narrative**

No comment. These classes have not been taught yet.

**Resources Needed to Meet/Sustain Results**

Although these courses have not been taught yet but from the year 2023-2024 we will need a data science faculty member to support these upper level courses and other program needs. We request a tenure track faculty position to support data science program and teach upper level data science courses. Our estimate is \$94K/year (approximately \$72K for the salary and \$22K for other employee benefits).

**Explanation of How Resources Will Be Used**

The faculty member hired to support data science program will be responsible for the following:

1. To develop and teach upper level data science courses
2. To mentor and advise students majoring un data science
3. To represent data science program in open houses and other admission activities

4. To ensure that the information available on Lander's website and catalog regarding the data science program is accurate and up to date
5. The ensure that the data science program is assessed annually, data is collected from the designated classes, and collected data is analyzed and properly reported in annual assessment report
6. To ensure that the data science courses are regularly reviewed and updated as needed

## Goal Summary

### Goal Summary/Comments

None.

### Changes Made/Proposed Related to Goal

None.

### Upload Rubrics/Other Files

## 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

Students graduating with a B.S. in Data Science will demonstrate mathematical and statistical understanding of the central algorithms used in the field of data science.

### 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?

Student Learning Outcome

### Enter Outcome

Students will be able to explain the role of Linear Algebra in Data Science Algorithms.

### Timeframe for this Outcome

2022 - 2023

### Performance Target for "Met"

70% of students in MATH 208 will score at least 3.5 out of 5 on Data Science-related test/exam items.

**Performance Target for "Partially Met"**

60% - 69% of students in MATH 208 will score at least 3.5 out of 5 on Data Science-related test/exam items.

**Performance Target for "Not Met"**

Less than 60% of students in MATH 208 will score at least 3.5 out of 5 on Data Science-related test/exam items.

**Assessment Measure Used**

Tests and Exams in MATH 208

**Frequency of Assessment**

Annually.

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

N/A. Data not yet available

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

**Comments/Narrative**

No comment. This is the second year of this program and data have yet to be collected.

**Resources Needed to Meet/Sustain Results**

None

**Explanation of How Resources Will Be Used**

## 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**

Students will be able to explain the statistical foundations of both supervised and unsupervised machine learning.

**Timeframe for this Outcome**

2023 - 2024

**Performance Target for "Met"**

70% of students in MATH 213 and MATH 214 will score at least 3.5 out of 5 on Data Science-related test/exam items.

**Performance Target for "Partially Met"**

The target will be consider to be partially met, if it is neither met nor not met.

**Performance Target for "Not Met"**

Less than 60% of students in MATH 213 and MATH 214 will score at least 3.5 out of 5 on Data Science-related test/exam items.

**Assessment Measure Used**

Relevant components of the assessment rubric.

**Frequency of Assessment**

During each offering of MATH 213 and 214

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

N/A. Classes not taught yet

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

**Comments/Narrative**

None

**Resources Needed to Meet/Sustain Results**

None

**Explanation of How Resources Will Be Used**

### 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**

Students will be able to both select and justify the selection of a model to be used in a variety of data science tasks.

**Timeframe for this Outcome**

2023 - 2024

**Performance Target for "Met"**

70% of students in MATH 213 and MATH 214 will score at least 3.5 out of 5 on Data Science-related test/exam items.

**Performance Target for "Partially Met"**

The target will be consider to be partially met, if it is neither met nor not met.

**Performance Target for "Not Met"**

Less than 60% of students in MATH 213 and MATH 214 will at least 3.5 out of 5 on Data Science-

related test/exam items.

**Assessment Measure Used**

Relevant components of the assessment rubric

**Frequency of Assessment**

During every offering of MATH 213 and MATH 214

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

No data is available until the time frame listed above

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

N/A.

**Resources Needed to Meet/Sustain Results**

None

**Explanation of How Resources Will Be Used**

## Goal Summary

**Goal Summary/Comments**

None

**Changes Made/Proposed Related to Goal**

None

**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**

Students graduating with a B.S. in Data Science will demonstrate the ability to communicate results of data analyses including data visualization.

**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?**

Student Learning Outcome

**Enter Outcome**

Students will be able to produce technical reports orally and in writing summarizing the results of data analyses.

**Timeframe for this Outcome**

2023 - 2024 and 2024 - 2025

**Performance Target for "Met"**

70% or more of students in each of DSCI 231 and DSCI 499 will score at least 3.5 out of 5 on oral and written technical communication components of the final project assessment rubric.

**Performance Target for "Partially Met"**

The target will be consider to be partially met, if it is neither met nor not met.

**Performance Target for "Not Met"**

Less than 60% of students in at least one of DSCI 231 and DSCI 499 will score at least 3.5 out of 5 on oral and written technical communication components of the final project assessment rubric.

**Assessment Measure Used**

Oral and written technical communication components of the final project rubric

**Frequency of Assessment**

During each offering of DSCI 231 and DSCI 499

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

N/A. New outcome. See time frame above

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

**Comments/Narrative**

No comment. This is the second year of this program and data have yet to be collected.

**Resources Needed to Meet/Sustain Results**

None

**Explanation of How Resources Will Be Used**

## 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**

Students will be able to communicate the results of data analyses to a non-technical audience as a means of informing decision-making.

**Timeframe for this Outcome**

2023 - 2024 and 2024 - 2025

**Performance Target for "Met"**

70% or more of students in each of DSCI 231 and DSCI 499 will score at least 3.5 out of 5 on oral and written non-technical communication components of the final project assessment rubric.

**Performance Target for "Partially Met"**

The target will be consider to be partially met, if it is neither met nor not met.

**Performance Target for "Not Met"**

Less than 60% of students at least one of DSCI 231 and DSCI 499 will score at least 3.5 out of 5 on oral and written non-technical communication components of the final project assessment rubric.

**Assessment Measure Used**

Oral and written technical communication components of the final project rubric

**Frequency of Assessment**

During each offering of DSCI 231 and DSCI 499

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

N/A. New outcome. See timeframe above

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

**Comments/Narrative**

No comment. This is the second year of this program and data have yet to be collected.

**Resources Needed to Meet/Sustain Results**

None

**Explanation of How Resources Will Be Used**

None

## Goal Summary

**Goal Summary/Comments**

None

**Changes Made/Proposed Related to Goal**

None

**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**

Students graduating with a B.S. in Data Science will apply data analyses in real-world scenarios in order to inform decision-making.

**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?**

Student Learning Outcome

**Enter Outcome**

Students will be able to gain insights from data and evaluate results from data analysis in real-world scenarios.

**Timeframe for this Outcome**

2024-2025

**Performance Target for "Met"**

70% or more of students in DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Performance Target for "Partially Met"**

Between 60% and 69% of students in DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Performance Target for "Not Met"**

Less than 60% of students in DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Assessment Measure Used**

Relevant components of the final project assessment rubric.

**Frequency of Assessment**

During each offering of DSCI 499

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

N/A. New outcome. See timeframe above.

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

**Comments/Narrative**

No comment. This is the second year of this program and data have yet to be collected.

**Resources Needed to Meet/Sustain Results**

None

**Explanation of How Resources Will Be Used**

## 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**

Students will apply methods and models to answer real-world, data science questions.

**Timeframe for this Outcome**

2024 - 2025

**Performance Target for "Met"**

70% or more of students in DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Performance Target for "Partially Met"**

Between 60% and 69% of students in DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Performance Target for "Not Met"**

Less than 60% of students in DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Assessment Measure Used**

Relevant components of the final project assessment rubric.

**Frequency of Assessment**

During each offering of DSCI 499

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

N/A. New outcome. See timeframe above.

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

No comment. This is the second year of this program and data have yet to be collected.

## Resources Needed to Meet/Sustain Results

## Explanation of How Resources Will Be Used

# Goal Summary

### Goal Summary/Comments

None

### Changes Made/Proposed Related to Goal

None

### Upload Rubrics/Other Files

## Goal 5

**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

Students graduating a B.S. degree in Data Science will demonstrate the ability to develop a high-performance machine learning and deep learning system using a large data set.

### 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?

Student Learning Outcome

### Enter Outcome

Students will be able to develop machine learning and deep learning models and systems by using an appropriate programming language and large data sets.

### Timeframe for this Outcome

2023 - 2024 and 2024 - 2025

**Performance Target for "Met"**

70% or more of students in each of DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Performance Target for "Partially Met"**

The target will be consider to be partially met, if it is neither met nor not met.

**Performance Target for "Not Met"**

Less than 60% of students in one of DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Assessment Measure Used**

Relevant components of the final project assessment rubric.

**Frequency of Assessment**

During each offering of DSCI 340, 440, and 449

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

N/A. New outcome. See timeframe above.

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

Courses not taught yet.

**Resources Needed to Meet/Sustain Results**

Although these courses have not been taught yet but from the year 2023-2024 we will need a data science faculty member to support these upper level courses and other program needs. We request a tenure track faculty position to support data science program and teach upper level data science courses. Our estimate is \$94K/year (approximately \$72K for the salary and \$22K for other employee benefits).

**Explanation of How Resources Will Be Used**

The faculty member hired to support data science program will be responsible for the following:

1. To develop and teach upper level data science courses
2. To mentor and advise students majoring un data science
3. To represent data science program in open houses and other admission activities
4. To ensure that the information available on Lander's website and catalog regarding the data science program is accurate and up to date
5. The ensure that the data science program is assessed annually, data is collected from the designated classes, and collected data is analyzed and properly reported in annual assessment report
6. To ensure that the data science courses are regularly reviewed and updated as needed

**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**

Students will be able to assess and fine-tune the performance of machine learning and deep learning models and systems.

**Timeframe for this Outcome**

2023 - 2024 and 2024 - 2025

**Performance Target for "Met"**

70% or more of students in each of DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Performance Target for "Partially Met"**

The target will be consider to be partially met, if it is neither met nor not met.

**Performance Target for "Not Met"**

Less than 60% of students in one of DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Assessment Measure Used**

Relevant components of the final project assessment rubric.

**Frequency of Assessment**

During each offering of DSCI 340, 440, and 449

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

N/A. New outcome. See timeframe above.

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

Courses not taught yet.

**Resources Needed to Meet/Sustain Results**

Although these courses have not been taught yet but from the year 2023-2024 we will need a data science faculty member to support these upper level courses and other program needs. We request a tenure track faculty position to support data science program and teach upper level data science courses. Our estimate is \$94K/year (approximately \$72K for the salary and \$22K for other employee benefits).

**Explanation of How Resources Will Be Used**

The faculty member hired to support data science program will be responsible for the following:

1. To develop and teach upper level data science courses
2. To mentor and advise students majoring un data science
3. To represent data science program in open houses and other admission activities
4. To ensure that correct information regarding the data science program's requirement is posted on the website and the catalog.
5. The ensure that the program is assessed annually, data is collected from the designated classes, and collected data is analyzed and properly reported in annual assessment report
6. To ensure that the data science courses are regularly reviewed and updated as needed

**Goal Summary****Goal Summary/Comments**

None

#### Changes Made/Proposed Related to Goal

None

#### Upload Rubrics/Other Files

## Goal 6

**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

Students graduating a B.S. degree in Data Science will demonstrate ethical principles of data science in building data sets and using them in data science applications including machine learning systems

#### 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?

Student Learning Outcome

#### Enter Outcome

Students will be able to collect and/or build a data set that provides equity and fairness, or acknowledge the shortcoming of the data set.

#### Timeframe for this Outcome

2023 - 2024 and 2024 - 2025

#### Performance Target for "Met"

70% or more of students in each of DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

#### Performance Target for "Partially Met"

The target will be consider to be partially met, if it is neither met nor not met.

#### Performance Target for "Not Met"

Less than 60% of students in one of DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5

on relevant components of the final project assessment rubric.

**Assessment Measure Used**

Relevant components of the final project assessment rubric.

**Frequency of Assessment**

During each offering of DSCI 340, 440, and 499

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

N/A. New outcome. See timeframe above.

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

No comment. This is second year of this program and data have yet to be collected.

**Resources Needed to Meet/Sustain Results**

Although these courses have not been taught yet but from the year 2023-2024 we will need a data science faculty member to support these upper level courses and other program needs. We request a tenure track faculty position to support data science program and teach upper level data science courses. Our estimate is \$94K/year (approximately \$72K for the salary and \$22K for other employee benefits).

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5. To ensure that the data science program is assessed annually, data is collected from the designated classes, and collected data is analyzed and properly reported in annual assessment report
6. To ensure that the data science courses are regularly reviewed and updated as needed

## 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**

Students will be able to develop a non-discriminatory system that provides equability and fairness, or acknowledge the shortcoming of the system.

**Timeframe for this Outcome**

2023 - 2024 and 2024 - 2025



**Performance Target for "Met"**

70% or more of students in each of DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Performance Target for "Partially Met"**

The target will be consider to be partially met, if it is neither met nor not met.

**Performance Target for "Not Met"**

Less than 60% of students in one of DSCI 340, DSCI 440, and DSCI 499 will score at least 3.5 out of 5 on relevant components of the final project assessment rubric.

**Assessment Measure Used**

Relevant components of the final project assessment rubric.

**Frequency of Assessment**

During each offering of DSCI 340, 440, and 499

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

N/A. New outcome. See timeframe above.

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

No comment. This is the second year of this program and data have yet to be collected.

**Resources Needed to Meet/Sustain Results**

Although these courses have not been taught yet but from the year 2023-2024 we will need a data science faculty member to support these upper level courses and other program needs. We request a tenure track faculty position to support data science program and teach upper level data science courses. Our estimate is \$94K/year (approximately \$72K for the salary and \$22K for other employee benefits).

**Explanation of How Resources Will Be Used**

The faculty member hired to support data science program will be responsible for the following:

1. To develop and teach upper level data science courses
2. To mentor and advise students majoring un data science
3. To represent data science program in open houses and other admission activities
4. To ensure that the information available on Lander's website and catalog regarding the data science program is accurate and up to date
5. The ensure that the data science program is assessed annually, data is collected from the designated classes, and collected data is analyzed and properly reported in annual assessment report
6. To ensure that the data science courses are regularly reviewed and updated as needed

## Goal Summary

**Goal Summary/Comments**

There are no results as this is the second year of the program.

**Changes Made/Proposed Related to Goal**

N/A

**Upload Rubrics/Other Files**

**Thank you for completing your assessment report. Your report will be sent to your College Dean for their review and approval after you hit "Submit" below. Please enter their email address below.**

**Dean's Email Address**

dslimmer@lander.edu

**Thank you for reviewing and approving this report. The approval and a copy of the report will be emailed to you and the Assessment Coordinator.**