Arapahoe Community College

2013-2014 Astronomy Assessment
Plan Data

Discipline Outcome
Scientific Literacy: Students will display scientific literacy and familiarity with astronomy and science jargon

Measure 1 Type:
Direct

Pre-Post tests

Measure 1 Description:
A pre/post test given at the beginning and end of the term will assess the success of the Learning Outcomes

Measure 1 Sample Size:

Measure 1 Benchmark

1) Describe the benchmark for this measure.
70% of the students will score at least a 70% on the post test

2) What is the rationale for choosing this benchmark?
A pre/post test was used by my predecessor, so I continued using the same concept but not the same test. It is important for students to have a solid grasp on the jargon before they can understand complex concepts.

Measure 2 Type:
1) How did unit/department performance compare to the benchmark?
We did not make the benchmark we were about 5% below.

2) How does the data compare to the previous year, if applicable?
There is no previous data.

3) If multiple measures were used, how do they compare to each other?

1) Based on the findings, how does the unit/department rate performance in regards to this outcome (strong – exceeds benchmark, neutral – meets benchmark, or weak – misses benchmark)?
Missed benchmark

2) How does this assessment affect plans for this coming year in terms of strategic planning, budget planning, administrative and educational support unit planning, and assessment planning?
There three flaws to the way that data was collected. The pre/post test itself was not the best measure of student success. Some questions were far too easy, but many were a bit off topic of the main goals of the course. Additionally, the pre/post test was not divided by question into the specific outcomes. In the future it will be. Also, the pre/post test was taken as a lump of all the students taking it the first time and all of the students taking it the second time. It was not set up to match student to student. In the future, each student will be tracked to better match the benchmark. Finally, not all AST101 instructors administered both the pre and post test.

Further Action:
Further Action Unnecessary

Describe the action plan:

Person/ Group responsible for action

Target Date for implementation of the action
Priority

Describe any additional resources needed (Leave blank if no additional resources are needed.)

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**Discipline Outcome**

Information Management: Students will display an understanding of the formation and structure of the solar system

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**Measure 1 Type:**

Direct

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Pre-Post tests

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**Measure 1 Description:**

A pre/post test given at the beginning and end of the term will assess the success of the Learning Outcomes

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**Measure 1 Sample Size:**

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**Measure 1 Benchmark**

1) Describe the benchmark for this measure.

70% of the students will score at least a 70% on the post test

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2) What is the rationale for choosing this benchmark?

A pre/post test was used by my predecessor, so I continued using the same concept but not the same test. The key topic of Astronomy 101 is the solar system. Students must understand this overarching concept.

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**Measure 2 Type:**
Please select

Measure 2 Description:

Measure 2 Sample Size:

Measure 2 Benchmark

1) Describe the benchmark for this measure.

2) What is the rationale for choosing this benchmark?

Outcomes Met/not met
Missed benchmark

Measure 1 Results:
My course averages were below 70%. In some cases, a question was better answer in the pretest than the post test.

Averages for All AST 101 Courses

Measure 2 Results:
1) How did unit/department performance compare to the benchmark?
We did not make the benchmark; we were about 5% below.

2) How does the data compare to the previous year, if applicable?
There is no previous data.

3) If multiple measures were used, how do they compare to each other?

1) Based on the findings, how does the unit/department rate performance in regards to this outcome (strong – exceeds benchmark, neutral – meets benchmark, or weak – misses benchmark)?
Missed benchmark

2) How does this assessment affect plans for this coming year in terms of strategic planning, budget planning, administrative and educational support unit planning, and assessment planning?
There are three flaws to the way that data was collected. The pre/post test itself was not the best measure of student success. Some questions were far too easy, but many were a bit off topic of the main goals of the course. Additionally, the pre/post test was not divided by question into the specific outcomes. In the future it will be. Also, the pre/post test was taken as a lump of all the students taking it the first time and all of the students taking it the second time. It was not set up to match student to student. In the future, each student will be tracked to better match the benchmark. Finally, not all AST101 instructors administered both the pre and post test.

Further Action:
Further Action Unnecessary

Describe the action plan:

Person/ Group responsible for action
Target Date for implementation of the action

Priority

Describe any additional resources needed (Leave blank if no additional resources are needed.)

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**Discipline Outcome**

Laboratory Techniques: Students will display an understanding of data interpretation and laboratory technique

**Measure 1 Type:**

Direct

Pre-Post tests

**Measure 1 Description:**

A pre/post test given at the beginning and end of the term will assess the success of the Learning Outcomes

**Measure 1 Sample Size:**

**Measure 1 Benchmark**

1) Describe the benchmark for this measure.

70% of the students will score at least a 70% on the post test

2) What is the rationale for choosing this benchmark?

A pre/post test was used by my predecessor, so I continued using the same concept but not the same test. It is important for students to be able to analyse and handle data, as this is a key skill in the sciences.

**Measure 2 Type:**
Please select

Measure 2 Description:

Measure 2 Sample Size:

Measure 2 Benchmark

1) Describe the benchmark for this measure.

2) What is the rationale for choosing this benchmark?

Outcomes Met/not met
Missed benchmark

Measure 1 Results:
My course averages were below 70%. In some cases, a question was better answer in the pretest than the post test.

Averages for All AST 101 Courses

Measure 2 Results:
1) How did unit/department performance compare to the benchmark?
We did not make the benchmark we were about 5% below.

2) How does the data compare to the previous year, if applicable?
There is no previous data.

3) If multiple measures were used, how do they compare to each other?

1) Based on the findings, how does the unit/department rate performance in regards to this outcome (strong – exceeds benchmark, neutral – meets benchmark, or weak – misses benchmark)?
Missed benchmark

2) How does this assessment affect plans for this coming year in terms of strategic planning, budget planning, administrative and educational support unit planning, and assessment planning?
There three flaws to the way that data was collected. The pre/post test itself was not the best measure of student success. Some questions were far too easy, but many were a bit off topic of the main goals of the course. Additionally, the pre/post test was not divided by question into the specific outcomes. In the future it will be. Also, the pre/post test was taken as a lump of all the students taking it the first time and all of the students taking it the second time. It was not set up to match student to student. In the future, each student will be tracked to better match the benchmark. Finally, not all AST101 instructors administered both the pre and post test.

Further Action:
Further Action Unnecessary

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Person/ Group responsible for action

Target Date for implementation of the action
Priority

Describe any additional resources needed (Leave blank if no additional resources are needed.)

Discipline Outcome

Quantitative Reasoning: Students will display an understanding of the physical laws important to the solar system

Measure 1 Type:
Direct

Pre-Post tests

Measure 1 Description:
A pre/post test given at the beginning and end of the term will assess the success of the Learning Outcomes

Measure 1 Sample Size:

Measure 1 Benchmark

1) Describe the benchmark for this measure.
70% of the students will score at least a 70% on the post test

2) What is the rationale for choosing this benchmark?
A pre/post test was used by my predecessor, so I continued using the same concept but not the same test. It is important to know the physical processes that give rise to structures in the solar system. To do this students need to have a basic grasp of the physical laws governing the universe.

Measure 2 Type:
Please select

Measure 2 Description:

Measure 2 Sample Size:

Measure 2 Benchmark

1) Describe the benchmark for this measure.

2) What is the rationale for choosing this benchmark?

Outcomes Met/not met
Missed benchmark

Measure 1 Results:
My course averages were below 70%. In some cases, a question was better answer in the pretest than the post test.

Measure 2 Results:
1) How did unit/department performance compare to the benchmark?
We did not make the benchmark we were about 5% below.

2) How does the data compare to the previous year, if applicable?
There is no previous data.

3) If multiple measures were used, how do they compare to each other?

1) Based on the findings, how does the unit/department rate performance in regards to this outcome (strong – exceeds benchmark, neutral – meets benchmark, or weak – misses benchmark)?
Missed benchmark

2) How does this assessment affect plans for this coming year in terms of strategic planning, budget planning, administrative and educational support unit planning, and assessment planning?
There three flaws to the way that data was collected. The pre/post test itself was not the best measure of student success. Some questions were far too easy, but many were a bit off topic of the main goals of the course. Additionally, the pre/post test was not divided by question into the specific outcomes. In the future it will be. Also, the pre/post test was taken as a lump of all the students taking it the first time and all of the students taking it the second time. It was not set up to match student to student. In the future, each student will be tracked to better match the benchmark. Finally, not all AST101 instructors administered both the pre and post test.

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Further Action Unnecessary

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Person/ Group responsible for action

Target Date for implementation of the action
Priority

Describe any additional resources needed (Leave blank if no additional resources are needed.)