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## About this Assessment Plan

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Assessment Plan Owner: General Education

#### Assessment Unit Information

\* Select Assessment Planning Form [2010-2012] Worldwide Academic Plans

\* Program Name: WW\_General Education, Department of Arts and Sciences, 2010-2012

Contact Name: Kelly Whealan George

Contact Email: Kelly.George@erau.edu

Contact Phone: 703-402-1445

\* Public? Yes

#### Status of Assessment Plan

\* Status of Assessment Planning = Approved; Improvement = Approved Plan

#### Program Mission Statement

\* Program Mission Statement fill in later

#### Alignment of Program Mission Statement to University Mission

**Select checkboxes below for all of the appropriate elements that indicate how your Unit Mission aligns with the University Mission Statement.**

##### University Mission Statement:

*At Embry-Riddle, our mission is to teach the science, practice and business of aviation and aerospace, preparing students for productive careers and leadership roles in service around the world.*

*Our technologically enriched, student-centered environment emphasizes learning through collaboration and teamwork, concern for ethical and responsible behavior, cultivation of analytical and management abilities, and a focus on the development of the professional skills needed for participation in a global community. We believe a vibrant future for aviation and aerospace rests in the success of our students. Toward this end, Embry-Riddle is committed to providing a climate that facilitates the highest standards of academic achievement and knowledge discovery, in an interpersonal environment that supports the unique needs of each individual. Embry-Riddle Aeronautical University is the world's leader in aviation and aerospace education. The University is an independent, non-profit, culturally diverse institution providing quality education and research in aviation, aerospace, engineering and related fields leading to associate's, baccalaureate's, master's and doctoral degrees.*

Preparing Students for Productive Careers No

Preparing students for leadership roles in service around the world No

Technologically enriched environment No

Emphasize learning No

through collaboration and teamwork

Concern for ethical and responsible behavior No

Cultivate analytical abilities No

Cultivate management abilities No

Develop the professional skills needed for participation in a global community No

Facilitating the highest standards of academic achievement No

Facilitating knowledge discovery No

Providing an interpersonal environment that supports the unique needs of each individual No

### Assessment Year in Review

Ad Hoc Improvements in Past Year (optional) (fill in @ Fall 2011 with mid-year adjustments)

Collaboration with Others to Evaluate Assessment Results and Recommend Improvements (Assessment development activities thru the year)

Changes to Assessment Organization, Processes, Participants (optional) (address next Fall 2011)

Additional Information (optional)

Attach File(s) (optional)

### System Information

Last Modified Date Thursday, June 14, 2012 5:35:29 AM EDT

Last User to Modify phagant

### Assessment Plan Outcomes

Name	Description	Status	Public
Critical consumers of statistics			No
Cross Discipline Math and Econ			No
Cross Discipline Math and Physics			No
Cross Discipline Speech and Composition			No
Improve student readiness to work in a multicultural society			No
Improve writing skills across the curriculum			No
Increase use of ERAU writing rubric			No
Using Scientific Reasoning to Explain Results of an Experiment in Physics			No
Using Weather Information and Scientific Reasoning to Designate the Site for an Airport			No

## Assessment Plan Outcomes

### 📌 Critical consumers of statistics

#### Select Outcome to Assess from Master List of Outcomes

**Instructions:** Below, click the "BROWSE" button to:

1. (REQUIRED) Select an outcome to assess from Master List of Program Outcomes ("BROWSE" -> "Master List of Program Outcomes" -> "GO" button).

2. (OPTIONAL) Align outcome with any other applicable standards such as AABI, ABET, General Education Outcomes: ("BROWSE" -> "Standards" -> "GO" button).

✳ Select Outcome from WW\_GENED\_PO\_08 Scientific Reasoning Use scientific information in critical thinking and decision-making processes  
Master List of Outcomes

✳ Assessment Outcome Critical consumers of statistics  
Title

#### Assessment Measures, Criteria for Success and Results

##### Measurement One

Outcome Title Critical consumers of statistics

✳ Means of Assessment Exam in non-culminating course(s)

Description of 'Other' Means of Assessment As part of the course final exam, students were given simulated media reports on three situations involving statistics. They were asked several specific questions related to the reports and were also asked to critique the report in general. A rubric was used to grade the questions.

Details of Assessment Measurement (Timeframe of Data Collection, Participants/Roles, etc.) One classroom-based statistics class completed the assessment.

✳ Criterion for Success All students would score at least 75% on this part of the final exam.

Assessment Results / Data Collected See attachment: [WW\\_GENED CRIT \[2010-12\] ASMEAS MEAS1 ASRES.pdf](#)

##### Measurement Two

Means of Assessment

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

Assessment Results / Data Collected

##### Measurement Three

Means of Assessment

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

### Measurement Four

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Five and Up

***For Outcomes with more than four measurements, select means of assessment for measures five and up from the list below (check all that apply). Then list the details for measurements 5 and up in the areas below. Please number them appropriately in each text area, starting with number 5.***

Capstone course / senior design project **No**

Exam in non-culminating course(s) **No**

Rubric-scored artifact in non-culminating course(s) **No**

End of course evaluations **No**

Focus group/structured interviews (students, faculty) **No**

ERAU Student Satisfaction Survey **No**

ERAU Graduating Student Survey **No**

ERAU Alumni Survey **No**

ERAU Employer Feedback Survey **No**

National Survey of Student Engagement (NSSE) **No**

Incoming Freshmen Survey (CIRP) **No**

Other national survey **No**

External or internal peer review **No**

Retention / graduation rates **No**

Employment placement / continuing education rates **No**

Other (Please specify below) **No**

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion / Criteria for  
Success

Assessment Results /  
Data Collected

## Improvements

### Assessment Outcome Title

Outcome Title                      Critical consumers of statistics

### Use of Assessment Results

Have assessment results Yes (Select all that apply below, then describe)  
been used to make  
improvements?

Pedagogical                      No  
modifications were made

Course sequence was              No  
altered

Technology-related              No  
changes were made

Personnel-related              No  
changes were made

Other                                  No

Description of Improvements                      These results are obviously very discouraging. The concepts covered in the items (valid sampling, interpretation of confidence intervals, interpretation of hypothesis tests, linear regression, interpreting a scatter plot) were certainly covered multiple times in the course. Research into student understanding of concepts of statistics has indicated that these are difficult concepts for students to comprehend. Introducing them at the appropriate time and continuing to reemphasize them throughout the remainder of the course may help students to understand them. The basic statistics courses, Math 211 and 222, will be redeveloped for online delivery in the Spring of 2012. The redevelopment will emphasize understanding of these and other basic concepts. Activities in the online course that emphasize these concepts will be made available to classroom instructors.

Attach File(s) (optional)

#### Attachments

Type

[WW\\_GENED CRIT \[2010-12\] ASMEAS MEAS1 ASRES.pdf](#)

Attachment

### Planned Future Improvements

*Indicate and describe any planned improvements. If new funds are required for planned improvements, you will also need to complete the next tab, "Mission Critical Budget Request".*

Do assessment results  
indicate any critical  
improvements that must  
be made in the next fiscal  
year?

Description of Planned  
Improvements

## Mission-Critical Budget Request

### Assessment Outcome Title

Outcome Title                      Critical consumers of statistics

## Mission-Critical Budget Request

Title of Budget Request

Details of Budget Request

Are capital funds required?

Total Amount of Operating Funds Requested

Salaries: \$

Duration:

Benefits: \$

Duration:

Professional Development: \$

Duration:

Computer Hardware: \$

Duration:

Computer Software: \$

Duration:

Other Operating Funds: \$

Duration:

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## Cross Discipline Math and Econ

### Select Outcome to Assess from Master List of Outcomes

**Instructions:** Below, click the "BROWSE" button to:

1. (REQUIRED) Select an outcome to assess from Master List of Program Outcomes ("BROWSE" -> "Master List of Program Outcomes" -> "GO" button).

2. (OPTIONAL) Align outcome with any other applicable standards such as AABI, ABET, General Education Outcomes: ("BROWSE" -> "Standards" -> "GO" button).

 Select Outcome from Master List of Outcomes WW\_GENED\_PO\_10 Economic Reasoning Apply economic principles to identify, formulate, and solve problems within professional and personal environments  
WW\_GENED\_PO\_01 Mathematical Reasoning Apply knowledge of college level mathematics to defining and solving problems

 Assessment Outcome Cross Discipline Math and Econ  
Title

### Assessment Measures, Criteria for Success and Results

#### Measurement One

Outcome Title Cross Discipline Math and Econ

 Means of Assessment Exam in non-culminating course(s)

Description of 'Other'  
Means of Assessment

Details of Assessment Measurement (Timeframe of Data Collection, Participants/Roles, etc.) The time frame of this assessment effort will be the October 2010 ERAU Worldwide academic term. We will embed a 20 questions multiple choice exam as a post test in MATH 111 and as a pre and post test for ECON 210. We will separate student responses to the exams by categories: (1) students who took their prerequisite course for ECON 210 at an institution other than ERAU; (2) students who completed MATH 111 as their prerequisite course for ECON 210 and (3) students who did not take MATH 111 as their prerequisite course for ECON 210. Course Monitors for the ECON 210 and MATH 111 courses will have access to the results of the assessment to help them determine how much emphasis they need to place on solving literal equations during their courses and strategies for students to carryover their quantitative reasoning knowledge.

\* Criterion for Success The overall goal is for students to achieve an average score of 70% on the exam. In addition, the content goals are: (1) for students to achieve an average score of not less than 70% on any level 1 or 2 problem and (2) for students to achieve not less than an average score of 60% on any level 3 problem.

Assessment Results / Data Collected The pre and post test became too cumbersome to administer so the quiz became a first quiz in the ECON 210 course. 30 students took the 30 question, course-embedded exam in Econ 210. The average score on the exam was 21 out of 30 questions which met the criterion of success, but not a huge success. Upon individual question analysis, the questions that did not reach a 70% success rate included the analysis of a graph and calculating the slope of a line. Two additional questions scored less than 50%. These were expected to be lower scored as it apply literal equations to economic topics and that content would have been content that would have been able to tackle after taking Econ 210.

The quiz also gathered results on where the students took their General Education Math. 13/30 students transferred in Math credit hours while 17 students took their Math credit hours at ERAU dispelling a common argument that the overwhelming majority of students transfer in their math credit hours.

### Measurement Two

Means of Assessment Exam in non-culminating course(s)

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

Assessment Results / Data Collected

### Measurement Three

Means of Assessment

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

Assessment Results / Data Collected

### Measurement Four

Means of Assessment

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

Criterion for Success

Assessment Results / Data Collected 30 students took the course embedded quiz. The overall average score was 21 questions out of 30, or 70% meeting the criterion for success but certainly not flying over the bar. Individual questions where the the average score was less than 70% included topics such as calculating the slope of a line.

**Measurement Five and Up**

***For Outcomes with more than four measurements, select means of assessment for measures five and up from the list below (check all that apply). Then list the details for measurements 5 and up in the areas below. Please number them appropriately in each text area, starting with number 5.***

Capstone course / senior design project **No**

Exam in non-culminating course(s) **No**

Rubric-scored artifact in non-culminating course(s) **No**

End of course evaluations **No**

Focus group/structured interviews (students, faculty) **No**

ERAU Student Satisfaction Survey **No**

ERAU Graduating Student Survey **No**

ERAU Alumni Survey **No**

ERAU Employer Feedback Survey **No**

National Survey of Student Engagement (NSSE) **No**

Incoming Freshmen Survey (CIRP) **No**

Other national survey **No**

External or internal peer review **No**

Retention / graduation rates **No**

Employment placement / continuing education rates **No**

Other (Please specify below) **No**

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion / Criteria for Success

Assessment Results / Data Collected

## Improvements

### Assessment Outcome Title

Outcome Title                      Cross Discipline Math and Econ

### Use of Assessment Results

Have assessment results Yes (Select all that apply below, then describe) been used to make improvements?

Pedagogical                      Yes  
modifications were made

Course sequence was            No  
altered

Technology-related              Yes  
changes were made

Personnel-related                No  
changes were made

Other                                No

Description of  
Improvements

Students are carrying over their basic math knowledge. But one identified weakness is interpreting graphs. Also, students may be having trouble understanding the equation of a line in a different format, eg.  $y = mx + b$  vs.  $y = ax + b$ . Students may not understand that that is the same expression. This information was shared with the Math chairs where they will build examples of applications into the Math 111/112 course. Additionally, within the Econ 210 course, an added pedagogical tool was added that specifically gives a tutorial at the onset of class describing interpreting a graph and calculating the slope of a line. This section was also included in the weekly problem sets, both practice and graded, during the first week of class. And finally, the commonly held belief that the majority of students transfer in their Math GenEd courses was dispelled. The amount was high at 43%, but that is much lower than common conversations attribute.

Attach File(s) (optional)

### Planned Future Improvements

*Indicate and describe any planned improvements. If new funds are required for planned improvements, you will also need to complete the next tab, "Mission Critical Budget Request".*

Do assessment results indicate any critical improvements that must be made in the next fiscal year?

Description of Planned Improvements

## Mission-Critical Budget Request

### Assessment Outcome Title

Outcome Title                      Cross Discipline Math and Econ

### Mission-Critical Budget Request

Title of Budget Request

Details of Budget Request

Are capital funds required?

Total Amount of Operating Funds Requested

Funds Requested

Salaries: \$

Duration:

Benefits: \$

Duration:

Professional Development: \$

Duration:

Computer Hardware: \$

Duration:

Computer Software: \$

Duration:

Other Operating Funds: \$

Duration:

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## Cross Discipline Math and Physics

### Select Outcome to Assess from Master List of Outcomes

**Instructions:** Below, click the "BROWSE" button to:

- (REQUIRED)** Select an outcome to assess from Master List of Program Outcomes ("BROWSE" -> "Master List of Program Outcomes" -> "GO" button).
- (OPTIONAL)** Align outcome with any other applicable standards such as AABI, ABET, General Education Outcomes: ("BROWSE" -> "Standards" -> "GO" button).

\* Select Outcome from WW\_GENED\_PO\_01 Mathematical Reasoning Apply knowledge of college level mathematics to Master List of Outcomes defining and solving problems

\* Assessment Outcome Cross Discipline Math and Physics Title

### Assessment Measures, Criteria for Success and Results

#### Measurement One

Outcome Title Cross Discipline Math and Physics

\* Means of Assessment Exam in non-culminating course(s)

Description of 'Other' Means of Assessment

Details of Assessment Measurement (Timeframe of Data Collection, Participants/Roles, etc.) The time frame of this assessment effort will be the October 2010 ERAU Worldwide academic term. We will embed a 10 questions multiple choice exam in select PHYS 102 courses both online and in the classroom or EagleVision. We will separate student responses to the exams by categories: (1) students who took their prerequisite course for PHYS 102 at an institution other than ERAU; (2) students who completed MATH 106 as their prerequisite course for PHYS 102 and (3) students who completed MATH 140 as their prerequisite course for PHYS 102. Instructors teaching the PHYS 102 courses will have access to the results of the assessment to help them determine how much emphasis they need to place on solving literal equations during their courses.

\* Criterion for Success The 10 question exam contains problems that are at three levels of difficulty. The overall goal is for students to achieve an average score of 70% on the exam. In addition, the content goals are: (1) for students to achieve an average score of not less than 70% on any level 1 or 2 problem and (2) for students to achieve not less than an average score of 60% on any level 3 problem.

Assessment Results /  
Data Collected

See attachment: [WW\\_GENED M+P \[2010-12\] ASMEAS MEAS1 ASRES.pdf](#)

### Measurement Two

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Three

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Four

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Five and Up

***For Outcomes with more than four measurements, select means of assessment for measures five and up from the list below (check all that apply). Then list the details for measurements 5 and up in the areas below. Please number them appropriately in each text area, starting with number 5.***

Capstone course / senior No  
design project

Exam in non-culminating No  
course(s)

Rubric-scored artifact in No  
non-culminating  
course(s)

End of course evaluations No

Focus group/structured No  
interviews (students,  
faculty)

FR&I Student No

ERAU Student Satisfaction Survey	No
ERAU Graduating Student Survey	No
ERAU Alumni Survey	No
ERAU Employer Feedback Survey	No
National Survey of Student Engagement (NSSE)	No
Incoming Freshmen Survey (CIRP)	No
Other national survey	No
External or internal peer review	No
Retention / graduation rates	No
Employment placement / continuing education rates	No
Other (Please specify below)	No
Description of 'Other' Means of Assessment	
Details of Assessment Measurement	
Criterion / Criteria for Success	
Assessment Results / Data Collected	

### Improvements

#### Assessment Outcome Title

Outcome Title                      Cross Discipline Math and Physics

#### Use of Assessment Results

Have assessment results been used to make improvements?                      No

Pedagogical modifications were made                      No

Course sequence was altered                      No

Technology-related changes were made                      No

Personnel-related changes were made                      No

Other                      No

Description of Improvements                      Since no distinguishable patterns were identified, no specific actions were taken in regard to solving literal equations. We could increase the amount of time spent on this topic or have our

instructors place more emphasis on it, but that would take time from other topics that we haven't specifically assessed. Other actions we are taking to improve the overall student experience in taking math courses at ERAU Worldwide should address this topic. Those actions include use of MyMathLab in our math courses, strict use of the Mathematics Placement Exam to ensure that students are placed in the correct math course, and other initiatives to make more tutoring opportunities available to students taking our math courses.

Attach File(s) (optional)

**Attachments**

**Type**

[WW\\_GENED M&P \[2010-12\] ASMEAS MEAS1 ASRES.pdf](#)

Attachment

**Planned Future Improvements**

*Indicate and describe any planned improvements. If new funds are required for planned improvements, you will also need to complete the next tab, "Mission Critical Budget Request".*

Do assessment results indicate any critical improvements that must be made in the next fiscal year? **No**

Description of Planned Improvements

**Mission-Critical Budget Request**

**Assessment Outcome Title**

Outcome Title **Cross Discipline Math and Physics**

**Mission-Critical Budget Request**

Title of Budget Request

Details of Budget Request: **Not required.**

Are capital funds required? **No**

Total Amount of Operating Funds Requested

Salaries: \$

Duration:

Benefits: \$

Duration:

Professional Development: \$

Duration:

Computer Hardware: \$

Duration:

Computer Software: \$

Duration:

Other Operating Funds: \$

Duration:

Select Outcome to Assess from Master List of Outcomes

**Instructions:** Below, click the "BROWSE" button to:

1. (REQUIRED) Select an outcome to assess from Master List of Program Outcomes ("BROWSE" -> "Master List of Program Outcomes" -> "GO" button).
2. (OPTIONAL) Align outcome with any other applicable standards such as AABI, ABET, General Education Outcomes: ("BROWSE" -> "Standards" -> "GO" button).

✦ Select Outcome from Master List of Outcomes: WW\_GENED\_PO\_14 Information Literacy Conduct and report research in accordance with professional standards  
 WW Gen Ed Competency 4: Communication The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.

✦ Assessment Outcome Title: Cross Discipline Speech and Composition

**Assessment Measures, Criteria for Success and Results**

**Measurement One**

Outcome Title: Cross Discipline Speech and Composition

✦ Means of Assessment: Rubric-scored artifact in non-culminating course(s)

Description of 'Other' Means of Assessment

Details of Assessment Measurement (Timeframe of Data Collection, Participants/Roles, etc.): The Speech course has a required assignment that the student review a scholarly article and correctly document it in APA style. The Composition course has a required research paper, the Classical Argument Position Paper, which requires in-text citation and a references list in correct APA style. A rubric has been created to assess students' performance in each of these assignments in three areas: inclusion of all required information, inclusion of all required information in correct order, and inclusion of all required information in correct format (italics, capitalization, etc.).

✦ Criterion for Success: 80% of students score in the Good or Excellent range.

Assessment Results / Data Collected: See attachment: [WW\\_GENED S+C \[2010-12\] ASMEAS MEAS1 ASRES.pdf](#)

**Measurement Two**

Means of Assessment

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

Assessment Results / Data Collected

**Measurement Three**

Means of Assessment

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

Assessment Results /

Data Collected

## Measurement Four

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

## Measurement Five and Up

***For Outcomes with more than four measurements, select means of assessment for measures five and up from the list below (check all that apply). Then list the details for measurements 5 and up in the areas below. Please number them appropriately in each text area, starting with number 5.***

Capstone course / senior design project **No**

Exam in non-culminating course(s) **No**

Rubric-scored artifact in non-culminating course(s) **No**

End of course evaluations **No**

Focus group/structured interviews (students, faculty) **No**

ERAU Student Satisfaction Survey **No**

ERAU Graduating Student Survey **No**

ERAU Alumni Survey **No**

ERAU Employer Feedback Survey **No**

National Survey of Student Engagement (NSSE) **No**

Incoming Freshmen Survey (CIRP) **No**

Other national survey **No**

External or internal peer review **No**

Retention / graduation rates **No**

Employment placement / continuing education rates **No**

Other (Please specify below) **No**

Description of 'Other'

Means of Assessment

Details of Assessment  
Measurement

Criterion / Criteria for  
Success

Assessment Results /  
Data Collected

### Improvements

#### Assessment Outcome Title

Outcome Title                      Cross Discipline Speech and Composition

#### Use of Assessment Results

Have assessment results Yes (Select all that apply below, then describe)  
been used to make  
improvements?

Pedagogical                      No  
modifications were made

Course sequence was              No  
altered

Technology-related              No  
changes were made

Personnel-related              No  
changes were made

Other                                      Yes

Description of                      For future cross-discipline assessment, lesson learned: Information should be obtained concerning  
Improvements                      previous courses students have taken, so as to collect more reliable data on whether students are  
able to apply concepts and skills learned in previous courses.

Attach File(s) (optional)

#### Attachments

#### Type

[WW\\_GENED S&C \[2010-12\] ASMEAS MEAS1 ASRES.pdf](#)

Attachment

#### Planned Future Improvements

*Indicate and describe any planned improvements. If new funds are required for planned improvements, you will also need to complete the next tab, "Mission Critical Budget Request".*

Do assessment results              Yes - planned improvements require NO NEW FUNDS  
indicate any critical  
improvements that must  
be made in the next fiscal  
year?

Description of Planned              Means of collecting data to include previous courses taken.  
Improvements

### Mission-Critical Budget Request

#### Assessment Outcome Title

Outcome Title                      Cross Discipline Speech and Composition

#### Mission-Critical Budget Request

Title of Budget Request

Details of Budget Request

Are capital funds

Are capital funds required?

Total Amount of Operating Funds Requested

Salaries: \$

Duration:

Benefits: \$

Duration:

Professional Development: \$

Duration:

Computer Hardware: \$

Duration:

Computer Software: \$

Duration:

Other Operating Funds: \$

Duration:

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## Improve student readiness to work in a multicultural society

### Select Outcome to Assess from Master List of Outcomes

**Instructions:** Below, click the "BROWSE" button to:

1. (REQUIRED) Select an outcome to assess from Master List of Program Outcomes ("BROWSE" -> "Master List of Program Outcomes" -> "GO" button).

2. (OPTIONAL) Align outcome with any other applicable standards such as AABI, ABET, General Education Outcomes: ("BROWSE" -> "Standards" -> "GO" button).

 Select Outcome from Master List of Outcomes WW\_GENED\_PO\_13 Multicultural Competence Recognize the complexity and diversity of the human experience, including cultural, aesthetic, psychological, philosophical, and spiritual dimensions University General Education Core Requirement 5: Humanities In order to participate in the complexity of human experiences that arise in a framework of historical and social contexts, students are exposed to the humanities. Such areas of studies may include cultural, aesthetic, philosophical, and spiritual dimensions of the human condition.

 Assessment Outcome Title Improve student readiness to work in a multicultural society

### Assessment Measures, Criteria for Success and Results

#### Measurement One

Outcome Title Improve student readiness to work in a multicultural society

 Means of Assessment End of course evaluations

Description of 'Other' Means of Assessment

Details of Assessment Measurement (Timeframe of Data Collection, Participants/Roles, etc.) Question concerning value of Humanities courses in student end-of-course survey.

 Criterion for Success 90% of students will rate the value of their Humanities courses as good or excellent on student

▲ Criterion for Success 80% of students will rate the value of their Humanities courses as good or excellent on student end-of-course surveys.

Assessment Results /  
Data Collected

Responses to Q13 on student end-of-course evaluations for on-ground courses show that 88.2% of students rated the value of their courses as good or excellent. Responses to Q19 on student end-of-course evaluations for online courses show that 86.6% of students agreed or strongly agreed that they had a positive impression of their courses.

### Measurement Two

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Three

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Four

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Five and Up

***For Outcomes with more than four measurements, select means of assessment for measures five and up from the list below (check all that apply). Then list the details for measurements 5 and up in the areas below. Please number them appropriately in each text area, starting with number 5.***

Capstone course / senior No  
design project

Exam in non-culminating No  
course(s)

Rubric-scored artifact in No  
non-culminating  
course(s)

End of course evaluations No

Focus group/structured No

interviews (students, faculty)	
ERAU Student Satisfaction Survey	No
ERAU Graduating Student Survey	No
ERAU Alumni Survey	No
ERAU Employer Feedback Survey	No
National Survey of Student Engagement (NSSE)	No
Incoming Freshmen Survey (CIRP)	No
Other national survey	No
External or internal peer review	No
Retention / graduation rates	No
Employment placement / continuing education rates	No
Other (Please specify below)	No
Description of 'Other' Means of Assessment	
Details of Assessment Measurement	
Criterion / Criteria for Success	
Assessment Results / Data Collected	

### Improvements

#### Assessment Outcome Title

Outcome Title Improve student readiness to work in a multicultural society

#### Use of Assessment Results

Have assessment results been used to make improvements? Yes (Select all that apply below, then describe)

Pedagogical modifications were made No

Course sequence was altered No

Technology-related changes were made No

Personnel-related changes were made No

Other Yes

Description of Improvements

As a result of the Master Course Outline project, the outlines for some Humanities courses were thoroughly reviewed, allowing course monitors to make updates to course descriptions, goals and learning objectives. In addition, online Humanities courses are being updated as part of the 9-week project. The information from student end-of-course surveys has been useful in determining how to adjust the courses from concept to delivery, thus making them more relevant to today's students and increasing their perceived value.

Attach File(s) (optional)

### Planned Future Improvements

Indicate and describe any planned improvements. If new funds are required for planned improvements, you will also need to complete the next tab, "Mission Critical Budget Request".

Do assessment results indicate any critical improvements that must be made in the next fiscal year? **No**

Description of Planned Improvements

### Mission-Critical Budget Request

#### Assessment Outcome Title

Outcome Title Improve student readiness to work in a multicultural society

#### Mission-Critical Budget Request

Title of Budget Request

Details of Budget Request

Are capital funds required?

Total Amount of Operating Funds Requested

Salaries: \$

Duration:

Benefits: \$

Duration:

Professional Development: \$

Duration:

Computer Hardware: \$

Duration:

Computer Software: \$

Duration:

Other Operating Funds: \$

Duration:

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## Select Outcome to Assess from Master List of Outcomes

**Instructions:** Below, click the "BROWSE" button to:

1. (REQUIRED) Select an outcome to assess from Master List of Program Outcomes ("BROWSE" -> "Master List of Program Outcomes" -> "GO" button).

2. (OPTIONAL) Align outcome with any other applicable standards such as AABI, ABET, General Education Outcomes: ("BROWSE" -> "Standards" -> "GO" button).

\* Select Outcome from Master List of Outcomes WW\_GENED\_PO\_03 Written Communication Communicate ideas in written form in both technical and non-technical areas  
 WW Gen Ed Competency 4: Communication The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.  
 University General Education Competency 2: Communication The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.

\* Assessment Outcome Title Improve writing skills across the curriculum

### Assessment Measures, Criteria for Success and Results

#### Measurement One

Outcome Title Improve writing skills across the curriculum

\* Means of Assessment Other (please specify below)

Description of 'Other' Means of Assessment Team teaching research project

Details of Assessment Measurement (Timeframe of Data Collection, Participants/Roles, etc.) A research project to investigate the feasibility of using team teaching to infuse writing concepts across the curriculum.

\* Criterion for Success Literature review is conducted and interviews are conducted; final report issued with recommendation/s for ERAU.

Assessment Results / Data Collected Final report was issued: Four general models of team teaching were investigated: tag team (with and without both instructors present in all class sessions), serial instructors, parallel courses, and integrated curriculum. Some models used technology as part of the delivery mode. It was recommended that ERAU try the tag team model and use Blackboard and/or Eagle Vision as the method of providing supplemental writing instruction. Further, it was recommended that, prior to the initial course offering, a training module be developed for instructors who are interested in trying team teaching, this module to be refined by instructors involved in the first team-taught course.

#### Measurement Two

Means of Assessment Other (please specify below)

Description of 'Other' Means of Assessment Writing support as part of QEP.

Details of Assessment Measurement Incorporate specific ways to support writing instruction into University QEP.

Criterion for Success QEP will contain at least one specific strategy to enhance writing instruction across the curriculum.

Assessment Results / Data Collected Research was chosen as the topic for the QEP. A new Research Methods course will be developed, which will focus on all aspect of research, including writing.

#### Measurement Three

Means of Assessment Other (please specify below)

Description of 'Other' Means of Assessment Writing assessment/placement for new students.

Details of Assessment Measurement Writing assessment is taken by all incoming students; students are placed in classes according

Details of Assessment Measurement	writing assessment is taken by all incoming students, students are placed in classes according to their scores, unless they transfer in credit.
Criterion for Success	80% of new students take the writing assessment. 80% are placed according to their scores, unless they transfer in credit.
Assessment Results / Data Collected	Implementation of placement based on the test scores was delayed until a mechanism could be developed to enforce placement. This has been developed as part of the new Campus Solutions initiative. Catalog statements have been approved. Mandatory taking of the placement test and placement according to results (excepting students who transfer credit) will begin in 2012.

#### Measurement Four

Means of Assessment

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

Assessment Results / Data Collected

#### Measurement Five and Up

***For Outcomes with more than four measurements, select means of assessment for measures five and up from the list below (check all that apply). Then list the details for measurements 5 and up in the areas below. Please number them appropriately in each text area, starting with number 5.***

Capstone course / senior design project **No**

Exam in non-culminating course(s) **No**

Rubric-scored artifact in non-culminating course(s) **No**

End of course evaluations **No**

Focus group/structured interviews (students, faculty) **No**

ERAU Student Satisfaction Survey **No**

ERAU Graduating Student Survey **No**

ERAU Alumni Survey **No**

ERAU Employer Feedback Survey **No**

National Survey of Student Engagement (NSSE) **No**

Incoming Freshmen Survey (CIRP) **No**

Other national survey **No**

External or internal peer review **No**

Retention / graduation rates **No**

Employment placement / No  
continuing education  
rates

Other (Please specify No  
below)

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion / Criteria for  
Success

Assessment Results /  
Data Collected

### Improvements

#### Assessment Outcome Title

Outcome Title Improve writing skills across the curriculum

#### Use of Assessment Results

Have assessment results Yes (Select all that apply below, then describe)  
been used to make  
improvements?

Pedagogical No  
modifications were made

Course sequence was No  
altered

Technology-related Yes  
changes were made

Personnel-related No  
changes were made

Other Yes

Description of Improvements Technology is in place to enforce mandatory taking of the English placement test for all incoming students and placement in English classes based on the test results, except for students who transfer in credit.

Attach File(s) (optional)

#### Planned Future Improvements

*Indicate and describe any planned improvements. If new funds are required for planned improvements, you will also need to complete the next tab, "Mission Critical Budget Request".*

Do assessment results Yes - planned improvements require NO NEW FUNDS  
indicate any critical  
improvements that must  
be made in the next fiscal  
year?

Description of Planned Improvements Development of Research Methods course as part of QEP.

### Mission-Critical Budget Request

#### Assessment Outcome Title

Outcome Title Improve writing skills across the curriculum

## Mission-Critical Budget Request

Title of Budget Request

Details of Budget Request

Are capital funds required?

Total Amount of Operating Funds Requested

Salaries: \$

Duration:

Benefits: \$

Duration:

Professional Development: \$

Duration:

Computer Hardware: \$

Duration:

Computer Software: \$

Duration:

Other Operating Funds: \$

Duration:

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### Increase use of ERAU writing rubric

#### Select Outcome to Assess from Master List of Outcomes

**Instructions:** Below, click the "BROWSE" button to:

1. (REQUIRED) Select an outcome to assess from Master List of Program Outcomes ("BROWSE" -> "Master List of Program Outcomes" -> "GO" button).

2. (OPTIONAL) Align outcome with any other applicable standards such as AABI, ABET, General Education Outcomes: ("BROWSE" -> "Standards" -> "GO" button).

 Select Outcome from Master List of Outcomes WW\_GENED\_PO\_03 Written Communication Communicate ideas in written form in both technical and non-technical areas  
WW Gen Ed Competency 4: Communication The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.  
University General Education Competency 2: Communication The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.

 Assessment Outcome Increase use of ERAU writing rubric  
Title

#### Assessment Measures, Criteria for Success and Results

##### Measurement One

Outcome Title Increase use of ERAU writing rubric

 Means of Assessment Other (please specify below)

Description of 'Other' Means of Assessment Provide additional content in EAGLET writing lab, keyed to writing rubric.

Details of Assessment Measurement (Timeframe of Data Collection, Participants/Roles, etc.) Additional content is provided and keyed to writing rubric.

✦ Criterion for Success At least 20 pieces of additional content, keyed to the writing rubric, are provided, including a special section on avoiding plagiarism.

Assessment Results / Data Collected EAGLET content was significantly upgraded. The rubric was simplified, and 38 Jing videos were created to explain various content items. A Scholarly Writing Corner was added to provide information on the research process.

### Measurement Two

Means of Assessment Other (please specify below)

Description of 'Other' Means of Assessment Provide training to faculty in the use of EAGLET and the writing rubric.

Details of Assessment Measurement Training sessions will be provided for faculty.

Criterion for Success Provide at least 3 training sessions for each region.

Assessment Results / Data Collected Training was provided at regional meetings for DAs and DASs, in all four regions.

### Measurement Three

Means of Assessment Other (please specify below)

Description of 'Other' Means of Assessment Access to EAGLET.

Details of Assessment Measurement Track access to EAGLET to provide baseline data for future comparison.

Criterion for Success Access is tracked and baseline established.

Assessment Results / Data Collected Tracking access to EAGLET has been established; baseline data is being collected.

### Measurement Four

Means of Assessment End of course evaluations

Description of 'Other' Means of Assessment

Details of Assessment Measurement Add question/s to end-of-course student survey on usefulness of EAGLET and rubric.

Criterion for Success Question/s added; 25% of students respond that they used EAGLET and/or found the writing rubric useful.

Assessment Results / Data Collected The EAGLET upgrade was launched in April; training for regions took place in the August and September. No questions have yet been added to the end-of-course surveys.

### Measurement Five and Up

***For Outcomes with more than four measurements, select means of assessment for measures five and up from the list below (check all that apply). Then list the details for measurements 5 and up in the areas below. Please number them appropriately in each text area, starting with number 5.***

Capstone course / senior design project No

Exam in non-culminating course(s) No

Rubric-scored artifact in non-culminating course(s) **No**

End of course evaluations **Yes**

Focus group/structured interviews (students, faculty) **No**

ERAU Student Satisfaction Survey **No**

ERAU Graduating Student Survey **No**

ERAU Alumni Survey **No**

ERAU Employer Feedback Survey **No**

National Survey of Student Engagement (NSSE) **No**

Incoming Freshmen Survey (CIRP) **No**

Other national survey **No**

External or internal peer review **No**

Retention / graduation rates **No**

Employment placement / continuing education rates **No**

Other (Please specify below) **No**

Description of 'Other' Means of Assessment

Details of Assessment Measurement **Add survey question/s of end-of-course faculty survey on usefulness of EAGLET and rubric.**

Criterion / Criteria for Success **25% of faculty say they directed students to EAGLET and/or used rubric.**

Assessment Results / Data Collected **The EAGLET upgrade was launched in April; training for regions took place in the August and September. No questions have yet been added to the end-of-course surveys.**

### Improvements

#### Assessment Outcome Title

Outcome Title **Increase use of ERAU writing rubric**

#### Use of Assessment Results

Have assessment results been used to make improvements?

Pedagogical modifications were made **Yes**

Course sequence was altered **No**

Technology-related changes were made **Yes**

Personnel-related changes were made **No**

Other **No**

Description of Improvements **Improvements to EAGLET content and delivery; improvements to design of EAGLET site.**

Attach File(s) (optional)

### Planned Future Improvements

*Indicate and describe any planned improvements. If new funds are required for planned improvements, you will also need to complete the next tab, "Mission Critical Budget Request".*

Do assessment results indicate any critical improvements that must be made in the next fiscal year? **Yes - planned improvements require NO NEW FUNDS**

Description of Planned Improvements **Plagiarism module is under construction. Expansion of content regarding research is planned. Eventually, models of papers will be collected and included.**

### Mission-Critical Budget Request

#### Assessment Outcome Title

Outcome Title **Increase use of ERAU writing rubric**

#### Mission-Critical Budget Request

Title of Budget Request

Details of Budget Request

Are capital funds required?

Total Amount of Operating Funds Requested

Salaries: \$

Duration:

Benefits: \$

Duration:

Professional Development: \$

Duration:

Computer Hardware: \$

Duration:

Computer Software: \$

Duration:

Other Operating Funds: \$

Duration:

🏠 **Using Scientific Reasoning to Explain Results of an Experiment in Physics**

**Select Outcome to Assess from Master List of Outcomes**

**Instructions:** Below, click the "BROWSE" button to:

- (REQUIRED)** Select an outcome to assess from Master List of Program Outcomes ("BROWSE" -> "Master List of Program Outcomes" -> "GO" button).
- (OPTIONAL)** Align outcome with any other applicable standards such as AABI, ABET, General Education Outcomes: ("BROWSE" -> "Standards" -> "GO" button).

✳ Select Outcome from Master List of Outcomes **WW\_GENED\_PO\_08 Scientific Reasoning Use scientific information in critical thinking and decision-making processes**

✳ Assessment Outcome Title **Using Scientific Reasoning to Explain Results of an Experiment in Physics**

**Assessment Measures, Criteria for Success and Results**

**Measurement One**

Outcome Title **Using Scientific Reasoning to Explain Results of an Experiment in Physics**

✳ Means of Assessment **Exam in non-culminating course(s)**

Description of 'Other' Means of Assessment

Details of Assessment Measurement (Timeframe of Data Collection, Participants/Roles, etc.) **During the January 2012 and March terms in both online and classroom classes, we will harvest the answers to 9 questions in lab reports for 2 physics labs that require the students to use scientific reasoning to explain what they observed or phenomenon they are asked to evaluate, associated with experiments dealing with Newton's Second Law of Motion and constructing electric circuits.**

✳ Criterion for Success **The overall percentage of correct answers from all sections will be at least 70% (overall assessment). In addition, the percentage correct for each individual question will not be less than 70% (content assessment).**

Assessment Results / Data Collected **See attachment: [WW\\_GENED\\_USING\\_S \[2010-12\] ASMEAS MEAS1 ASRES.pdf](#)**

**Measurement Two**

Means of Assessment

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

Assessment Results / Data Collected

**Measurement Three**

Means of Assessment

Description of 'Other' Means of Assessment

Details of Assessment Measurement

Criterion for Success

Assessment Results /

Data Collected

## Measurement Four

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

## Measurement Five and Up

***For Outcomes with more than four measurements, select means of assessment for measures five and up from the list below (check all that apply). Then list the details for measurements 5 and up in the areas below. Please number them appropriately in each text area, starting with number 5.***

Capstone course / senior design project **No**

Exam in non-culminating course(s) **No**

Rubric-scored artifact in non-culminating course(s) **No**

End of course evaluations **No**

Focus group/structured interviews (students, faculty) **No**

ERAU Student Satisfaction Survey **No**

ERAU Graduating Student Survey **No**

ERAU Alumni Survey **No**

ERAU Employer Feedback Survey **No**

National Survey of Student Engagement (NSSE) **No**

Incoming Freshmen Survey (CIRP) **No**

Other national survey **No**

External or internal peer review **No**

Retention / graduation rates **No**

Employment placement / continuing education rates **No**

Other (Please specify below) **No**

Description of 'Other'

Description of Other  
Means of Assessment

Details of Assessment  
Measurement

Criterion / Criteria for  
Success

Assessment Results /  
Data Collected

## Improvements

### Assessment Outcome Title

Outcome Title Using Scientific Reasoning to Explain Results of an Experiment in Physics

### Use of Assessment Results

Have assessment results  
been used to make  
improvements?

Pedagogical            No  
modifications were made

Course sequence was    No  
altered

Technology-related    No  
changes were made

Personnel-related      No  
changes were made

Other                    No

Description of            See attachment: [WW\\_GENED USING S \[2010-12\] IMP DESC.pdf](#)  
Improvements

Attach File(s) (optional)

#### Attachments

#### Type

[WW\\_GENED USING S \[2010-12\] ASMEAS MEAS1 ASRES.pdf](#)

Attachment

[WW\\_GENED USING S \[2010-12\] IMP DESC.pdf](#)

Attachment

[WW\\_GENED USING S \[2010-12\] IMP PLAN.pdf](#)

Attachment

### Planned Future Improvements

*Indicate and describe any planned improvements. If new funds are required for planned improvements, you will also need to complete the next tab, "Mission Critical Budget Request".*

Do assessment results  
indicate any critical  
improvements that must  
be made in the next fiscal  
year?

Description of Planned    See attachment: [WW\\_GENED USING S \[2010-12\] IMP PLAN.pdf](#)  
Improvements

## Mission-Critical Budget Request

### Assessment Outcome Title

Outcome Title Using Scientific Reasoning to Explain Results of an Experiment in Physics

### Mission-Critical Budget Request

Title of Budget Request

Details of Budget Request

Are capital funds required?

Total Amount of Operating Funds Requested

Salaries: \$

Duration:

Benefits: \$

Duration:

Professional Development: \$

Duration:

Computer Hardware: \$

Duration:

Computer Software: \$

Duration:

Other Operating Funds: \$

Duration:

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**Using Weather Information and Scientific Reasoning to Designate the Site for an Airport**

**Select Outcome to Assess from Master List of Outcomes**

**Instructions:** Below, click the "BROWSE" button to:

- (REQUIRED)** Select an outcome to assess from Master List of Program Outcomes ("BROWSE" -> "Master List of Program Outcomes" -> "GO" button).
- (OPTIONAL)** Align outcome with any other applicable standards such as AABI, ABET, General Education Outcomes: ("BROWSE" -> "Standards" -> "GO" button).

\* Select Outcome from Master List of Outcomes WW\_GENED\_PO\_08 Scientific Reasoning Use scientific information in critical thinking and decision-making processes

\* Assessment Outcome Title Using Weather Information and Scientific Reasoning to Designate the Site for an Airport

**Assessment Measures, Criteria for Success and Results**

**Measurement One**

Outcome Title Using Weather Information and Scientific Reasoning to Designate the Site for an Airport

\* Means of Assessment Rubric-scored artifact in non-culminating course(s)

Description of 'Other' Means of Assessment

Details of Assessment Measurement (Timeframe of Data Collection, Participants/Roles, etc.) See attachment: [WW\\_GENED USING W \[2010-12\] ASMEAS MEAS1 DET.pdf](#)

\* Criterion for Success All groups will receive at least an overall satisfactory grade for the project. In addition, no more than 1 group per course section will receive less than a satisfactory grade on each of the individual

gradable items in the project.

Assessment Results /  
Data Collected

EagleVision Classroom There were six groups and all groups met or exceeded the overall and content goals for the exercise. Online: There were five groups and all groups met or exceeded the overall and content goals for the exercise.

### Measurement Two

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Three

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Four

Means of Assessment

Description of 'Other'  
Means of Assessment

Details of Assessment  
Measurement

Criterion for Success

Assessment Results /  
Data Collected

### Measurement Five and Up

***For Outcomes with more than four measurements, select means of assessment for measures five and up from the list below (check all that apply). Then list the details for measurements 5 and up in the areas below. Please number them appropriately in each text area, starting with number 5.***

Capstone course / senior No  
design project

Exam in non-culminating No  
course(s)

Rubric-scored artifact in No  
non-culminating  
course(s)

End of course evaluations No

Focus group/structured No  
interviews (students,  
faculty)

ERAU Student Satisfaction Survey	No
ERAU Graduating Student Survey	No
ERAU Alumni Survey	No
ERAU Employer Feedback Survey	No
National Survey of Student Engagement (NSSE)	No
Incoming Freshmen Survey (CIRP)	No
Other national survey	No
External or internal peer review	No
Retention / graduation rates	No
Employment placement / continuing education rates	No
Other (Please specify below)	No
Description of 'Other' Means of Assessment	
Details of Assessment Measurement	
Criterion / Criteria for Success	
Assessment Results / Data Collected	

### Improvements

#### Assessment Outcome Title

Outcome Title Using Weather Information and Scientific Reasoning to Designate the Site for an Airport

#### Use of Assessment Results

Have assessment results been used to make improvements? No

Pedagogical modifications were made No

Course sequence was altered No

Technology-related changes were made No

Personnel-related changes were made No

Other No

Description of None needed based on the results of the limited data assessments for this cycle

Description of Improvements

None needed based on the results of the limited data assessments for this cycle.

Attach File(s) (optional)

**Attachments**

**Type**

[WW\\_GENED USING W \[2010-12\] ASMEAS MEAS1 DET.pdf](#)

Attachment

### Planned Future Improvements

*Indicate and describe any planned improvements. If new funds are required for planned improvements, you will also need to complete the next tab, "Mission Critical Budget Request".*

Do assessment results indicate any critical improvements that must be made in the next fiscal year?

Description of Planned Improvements

None needed based on the results of the limited data assessments for this cycle.

### Mission-Critical Budget Request

#### Assessment Outcome Title

Outcome Title

Using Weather Information and Scientific Reasoning to Designate the Site for an Airport

#### Mission-Critical Budget Request

Title of Budget Request

Details of Budget Request

Are capital funds required?

Total Amount of Operating Funds Requested

Salaries: \$

Duration:

Benefits: \$

Duration:

Professional Development: \$

Duration:

Computer Hardware: \$

Duration:

Computer Software: \$

Duration:

Other Operating Funds: \$

Duration:

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