

Unit: User Name:

### Assessment Plan 2007-2008

Unit: General Education, WW Plan Period: 2007-2008

### Step 1: Expanded Statement of Institutional Purpose

Link to University Mission Statement

**Unit Mission Statement** 

### Step 2-5: Outcomes, Measurement Approaches, Assessment Results, Use of Results

Quantitative and Mathematical Competence

**Communication Competence** 

Computer Software Competence

Economics Course Relevance

Improve Physical Sciences Course Outlines with Standardized Assessment

Improve Social Science and Economics Program Course Outlines

Non-Technical Writing Skills Competence

Physical Science Course Value

Physical Science Course Value

**Physical Sciences Courses** 

Readiness to work in a multicultural society

## **Link to University Mission Statement (Step 1)**

<u>University Mission Statement</u> Embry-Riddle Aeronautical University is an independent, nonsectarian, non-profit, coeducational university with a history dating back to the early days of aviation. The university serves culturally diverse students motivated toward careers in aviation and aerospace. Residential campuses in Daytona Beach, Florida, and Prescott, Arizona, provide education in a traditional setting, while an extensive network of learning centers throughout the United States and abroad serves civilian and military working adults through ERAU-Worldwide. It is the purpose of Embry-Riddle to provide a comprehensive education to prepare graduates for productive careers and responsible citizenship with special emphasis on the needs of aviation, aerospace, engineering and related fields. To achieve this purpose, the university is dedicated to the following:

- To emphasize academic excellence in the teaching of all courses and programs; to recruit and develop excellent faculty and staff; and to pursue research and creative activities that maintain and extend knowledge in aviation, aerospace and related disciplines.
- To develop and effectively deliver educational programs for the adult student and professional at the undergraduate and graduate levels, including off-campus degree programs, short courses, distance learning, non-credit programs, seminars, workshops and conferences.

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## **Unit Mission Statement (Step 1)**

### Unit Mission Statement

Recognizing its general and special missions in education, Embry-Riddle Aeronautical University embraces a general education program. This course of study ensures that students possess the attributes expected of all university graduates. Encouraging intellectual self-reliance and ability, the general education program enables students regardless of their degree program, to understand the significance of acquiring a broad range of knowledge. Throughout the general education program, students gain and enhance competence in written and oral communication. They practice reasoning and critical thinking skills and demonstrate computer proficiency. As students engage in this course of study, they familiarize themselves with and investigate ideas and methodologies from several disciplines. These include the arts and humanities, the social sciences, and the natural sciences and mathematics. The program also helps students recognize interrelationships among the disciplines. Promoting the appreciation of varied perspectives, the general education program provides intellectual stimulation, ensuring that students are broadly educated. This course of study empowers students to make informed value judgments, to expand their knowledge and understanding of themselves, and to lead meaningful, responsible, and satisfying lives as individuals, professionals, and concerned members of their society and the world.

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# Step 2-5: Outcomes, Measurement Approaches, Assessment Results, Use of Results

#### **Outcome Title**

Quantitative and Mathematical Competence

### Step 2

### **Outcome Statement**

Embry-Riddle Aeronautical University students are adaquately prepared in quantitative and mathematical skills.

### **Measurement Approach 1**

### Means of Assessment

ERAU Alumni Survey (Details)

### **Further Description:**

**Timeframe of Data Collection** 

Participants and Roles

Other Details

#### **Criterion for Success**

Eighty percent of Embry-Riddle grauduates will rate their general quantitative and mathematical preparation as good or very good on the ERAU Alumni Feedback Survey.

### Measurement Approach 2

### Means of Assessment

ERAU Employer Feedback Survey (Details)

### **Further Description:**

**Timeframe of Data Collection** 

Participants and Roles

### Step 3

#### Other Details

#### Criterion for Success

Eighty percent of Embry-Riddle grauduates will rate their general quantitative and mathematical preparation as good or very good on the ERAU Employer Feedback Survey

### Measurement Approach 3

#### Means of Assessment

End of course evaluations

### **Further Description:**

**Timeframe of Data Collection** 

NO DATA

**Participants and Roles** 

NO DATA

Other Details

NO DATA

### Criterion for Success

Eighty percent of students will rate the overall value of their mathematics courses as either Good or Excellent. Data to measure this criterion will be derived from statement 13 of the Student End of Course Evaluation.

#### Criterion for Success #1:

Eighty percent of Embry-Riddle grauduates will rate their general quantitative and mathematical preparation as good or very good on the ERAU Alumni Feedback Survey.

The latest alumni survey available, indicated that 58% rated quantitative and mathematical preparation as excellent or good. 86% rated it as very useful or somewhat useful on the job. Preparation for problem solving which is related to mathematics and quantitative skills was rated as excellent or good by 79% while 97% found problem-solving skills useful on the job.

#### Criterion for Success #2:

Eighty percent of Embry-Riddle grauduates will rate their general quantitative and mathematical preparation as good or very good on the ERAU Employer Feedback Survey

### Step 4

#### Results #2:

The latest employer survey available indicated that 70% of ERAU graduates are competent in quantitative and mathematical skills while only 57% of graduates from other institutions were rated as competent in these areas. Ninety percent of employers indicated that quantitative and mathematical skills were very useful or somewhat useful on the job. Ninety-Seven percent indicated that problem solving skills were useful

#### Criterion for Success #3:

Eighty percent of students will rate the overall value of their mathematics courses as either Good or Excellent. Data to measure this criterion will be derived from statement 13 of the Student End of Course Evaluation.

#### Results #3:

On the October 2007, summary of student end-of-course evaluations 88% rated the value of their mathematics courses as either good or excellent. However, only 2840 students responded out of a possible 13471 which gives a response rate of 21%.

### Have assessment results been used to make improvements?



Yes

- Pedagogical modifications
- Technology-related changes were made

### Description:

Step 5

The online versions of MATH 111, MATH 222, MATH 211, and MATH 250 were modified to take advantage of advancements in interactive software. Mymathlab was incorporated into these courses to provide students with effective, immediate feedback. These improvements in software-student interactions should enhance student learning and satisfaction. These changes will be monitored and evaluated in the next year and other mathematics courses may be modified.

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



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#### **Outcome Title**

Communication Competence

### Step 2

#### **Outcome Statement**

Embry-Riddle Aeronautical University graduates are well prepared in communication (technical writing and speaking) skills.

### **Measurement Approach 1**

### Means of Assessment

ERAU Alumni Survey (Details)

### **Further Description:**

**Timeframe of Data Collection** 

**Participants and Roles** 

Other Details

#### Criterion for Success

Eighty-five percent of ERAU Graduates will rate their technical writing preparation as good or excellent on the ERAU Alumni Survey. Eighty percent of ERAU Graduates will rate their speaking preparation as good or excellent on the ERAU Alumni Survey.

### Measurement Approach 2

### Means of Assessment

ERAU Employer Feedback Survey (Details)

### **Further Description:**

**Timeframe of Data Collection** 

**Participants and Roles** 

Other Details

### **Criterion for Success**

Ninety percent of employers will rate ERAU graduates' technical writing competence as good or excellent on

the ERAU Employer Feedback Survey. Ninety percent of employers will rate ERAU graduates' speaking competence as good or excellent on the ERAU Employer Feedback Survey.

### **Measurement Approach 3**

#### Means of Assessment

End of course evaluations

### Step 3

### **Further Description:**

**Timeframe of Data Collection** 

**Participants and Roles** 

Other Details

#### **Criterion for Success**

Ninety-three percent of the students will rate the value of their English and Speech courses as either Good or Excellent. Data to measure this criterion will be derived from Statement 13 of the Student End of Course Evaluation.

### Measurement Approach 4

### Means of Assessment

Other

creation of materials

### **Further Description:**

**Timeframe of Data Collection** 

### Participants and Roles

### Other Details

This measure is based on NSSE data that indicate a need to improve students' perceptions of how well ERAU contributes to their learning to write clearly and effectively. The additional materials are intended to strengthen course quality and improve consistency. The plan is to assess students' perceptions again when the NSSE is next conducted in 2009. A specific percentage improvement goal will be set in late 2008.

### **Criterion for Success**

The course outline for SPCH 219 and ENGL 221 (the primary course for teaching technical writing) will be thoroughly reviewed to ensure that the course learning outcomes map upward to General Education Program goals and University goals. In addition, supporting materials in the form of suggested assignments and exercises for ENGL 221 will be created and provided for instructors. In addition, ENGL 221 will be strengthened by adding supplementary materials, such as suggested assignments, exams and grading rubrics to help enable instructors in the field devise appropriate assessment vehicles to measure student attainment of the course learning outcomes..

### Criterion for Success #1:

Eighty-five percent of ERAU Graduates will rate their technical writing preparation as good or excellent on the ERAU Alumni Survey. Eighty percent of ERAU Graduates will rate their speaking preparation as good or excellent on the ERAU Alumni Survey.

### Results #1:

No data available.

#### Criterion for Success #2:

Ninety percent of employers will rate ERAU graduates' technical writing competence as good or excellent on the ERAU Employer Feedback Survey. Ninety percent of employers will rate ERAU graduates' speaking competence as good or excellent on the ERAU Employer Feedback Survey.

#### Results #2:

65.5% of employers rated ERAU 2005 graduates' technical writing competence as good or excellent. 58.3% of employers rated ERAU 2005 graduates' speaking competence as good or excellent.

#### Criterion for Success #3:

### Step 4

Ninety-three percent of the students will rate the value of their English and Speech courses as either Good or Excellent. Data to measure this criterion will be derived from Statement 13 of the Student End of Course Evaluation.

#### Results #3:

No data available.

#### Criterion for Success #4:

The course outline for SPCH 219 and ENGL 221 (the primary course for teaching technical writing) will be thoroughly reviewed to ensure that the course learning outcomes map upward to General Education Program goals and University goals. In addition, supporting materials in the form of suggested assignments and exercises for ENGL 221 will be created and provided for instructors. In addition, ENGL 221 will be strengthened by adding supplementary materials, such as suggested assignments, exams and grading rubrics to help enable instructors in the field devise appropriate assessment vehicles to measure student attainment of the course learning outcomes..

#### Results #4:

ENGL 221 course outline reviewed and updated; supporting materials created. SPCH 219 course outline reviewed and updated. Creation of supporting materials is under way, as SPCH 219 is currently undergoing redevelopment for online delivery. This, however, may be delayed to facilitate development of GNED 104 and ENGL 1XX, due to shifting department priorities.

### Have assessment results been used to make improvements?



Yes



Other (specify)

Supporting materials have been made available.

### Description:

ENGL 221 supporting materials have been made available to all instructors, both in document form and in electronic form. Updated course outlines for both ENGL 221 and SPCH 219 have been made available to all instructors.

### Step 5

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



Yes - planned improvements can be made without new funds

#### Description:

The very disappointing results from the Employer Feedback Survey indicate that we must continue to pay attention to instruction in technical writing. This percentage represents a decline from the previous year; in fact, the percentage has been declining for several years. However, ENGL 221 was completely redeveloped in 2007, and so these 2005 graduates did not have the advantage of the much stronger course. The very disappointing results from the Employer Feedback Survey also indicate that we must continue to pay attention to instruction in speech. The speech course is in great need of redevelopment, but this has been delayed due to shifting departmental priorities.

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### Step 2

### **Outcome Title**

Computer Software Competence

### **Outcome Statement**

Embry-Riddle Aeronautical University students are adaquately prepared in the use in computer software.

### Measurement Approach 1

### Means of Assessment

ERAU Alumni Survey (Details)

### **Further Description:**

**Timeframe of Data Collection** 

Participants and Roles

Other Details

### **Criterion for Success**

Eighty percent of Embry-Riddle grauduates will rate their general quantitative and mathematical preparation as good or very good on the ERAU Alumni Feedback Survey

### Measurement Approach 2

### Means of Assessment

ERAU Employer Feedback Survey (Details)

### **Further Description:**

**Timeframe of Data Collection** 

**Participants and Roles** 

### Step 3

Other Details

#### Criterion for Success

Eighty percent of Embry-Riddle grauduates will rate their general quantitative and mathematical preparation as good or very good on the ERAU Employer Feedback Survey

### Measurement Approach 3

### Means of Assessment

End of course evaluations

### **Further Description:**

**Timeframe of Data Collection** 

NO DATA

**Participants and Roles** 

NO DATA

Other Details

**NO DATA** 

### **Criterion for Success**

Eighty percent of students will rate the overall value of thier computer science couses as eigher Good or Excellent. Data to measure this criterion will be derived from Statement 13 of the Student End of Course

Evaluation.

#### Criterion for Success #1:

Eighty percent of Embry-Riddle grauduates will rate their general quantitative and mathematical preparation as good or very good on the ERAU Alumni Feedback Survey

#### Results #1:

On the latest alumni survey available, 51% rated basic software preparation as excellent or good. Approximately 82% indicated that such preparation was very useful or somewhat useful on the job.

#### Criterion for Success #2:

Eighty percent of Embry-Riddle grauduates will rate their general quantitative and mathematical preparation as good or very good on the ERAU Employer Feedback Survey

#### Results #2:

### Step 4

On the survey of employers 81% indicated that ERAU graduates had basic software skills as compared with 66% from other institutions. Approximately 97% of employers indicated that basic software skills were necessary on the job.

### Criterion for Success #3:

Eighty percent of students will rate the overall value of thier computer science couses as eigher Good or Excellent. Data to measure this criterion will be derived from Statement 13 of the Student End of Course Evaluation.

#### Results #3:

he October 2007 summary of student end-of-course evaluations indicated that approximately 88% rated the overall value of their courses at ERAU as good or excellent. However, only 2840 students of a possible 13471 responded to the survey for a response rate of 21%.

### Have assessment results been used to make improvements?



No

### Step 5

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



No

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### **Outcome Title**

**Economics Course Relevance** 

#### **Outcome Statement**

### Step 2

Most students will complete two courses in basic Economics studies (Macroeconomics and Microeconomics). Increase student's preparation knowledge and usefulness of political and economic awareness. Graduates need to understand how relevant these courses are currently and to their understanding of the industry they will enter after graduation.

### Measurement Approach 1

### Means of Assessment

ERAU Alumni Survey (Details)

#### **Further Description:**

Timeframe of Data Collection

### Step 3

Class of 2006 Alumni Survey results

### **Participants and Roles**

IR Survey Instrument

Other Details

#### Criterion for Success

At least 80% of responses are 'good' or better in the Alumni Feedback Survey on Political and Economic awareness preparation and usefulness on the job.

#### Criterion for Success #1:

At least 80% of responses are 'good' or better in the Alumni Feedback Survey on Political and Economic awareness preparation and usefulness on the job.

### Step 4

#### Results #1:

No new data available for 2008. Previous value was 61.8% of responses are good or better in the Alumni Feedback Survey on Political and Economic awareness preparation and usefullness on the Job.

### Have assessment results been used to make improvements?



Yes

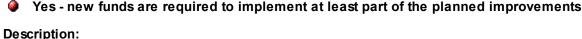


Curriculum modifications

### Description:

Continued focus on specific student activites, simulations, and external sources were included in the Course Outline and the Online course that help reinforce learning objectives of the course. All activities are of a current economic environment nature that help to indicate the applicability of economic theory to the student's non-academic life.

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



Course Outlines needs to include more of such activities and stress that instructors should focus on bridging the gap between academic and non-academic world of the student. However, we need to determine where instructors need to focus their energies on in the course. Expand and focus on this activity by expanding the Assessment Pilot Program using Blackboard Outcomes currently underway by way of a 2008 IR grant.

### **Mission Critical Budget Request**

### || Title:

### Step 5

### Amount:

Itemize how this money is to be allocated:

One-Time Cost Recurring Cost

Salaries:

Benefits:

Professional Development:

Computer Hardware:

Computer Software:

Other Operating Funds:

Are capital funds required to support this request? NO

#### Clarification:

**University Mission Link:** 

Justification:

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#### **Outcome Title**

**Outcome Statement** 

Improve Physical Sciences Course Outlines with Standardized Assessment

### Step 2

Redevelop the Physical Sciences Course Outlines to provide more specific course content guidance and supplemental material to instructors teaching the courses. The supplemental material should include standard exercises, problems, experiments, etc that can be used to assess student attainment of learning outcomes that are connected to General Education Program Outcomes

### **Measurement Approach 1**

### Means of Assessment



Other

Redevelop Physical Science Course Outlines

### **Further Description:**

### Timeframe of Data Collection

By Dec. 15, 2007 two of the Physical Science courses will be selected based on the General Education Program Outcomes matrix analysis to have the course outlines completely redeveloped. By March 15, 2008 the course outlines will be completely redeveloped and provided to the Arts and Letters Department Chair for approval.

### Step 3

### **Participants and Roles**

The Physical Sciences Discipline Chair will engage some of the instructors who routinely teach the two courses to provide input to the redevelopment of the course outlines, to include specific comments on the inclusion of standard assessment instruments. The Physical Sciences Discipline Chair will be responsible for incorporating suggestions in the new course outline.

#### Other Details

Include at least two standard assessment items in each of the course outlines that can be mapped to a learning outcome that is in turn mapped to a General Education Program Outcome.

### **Criterion for Success**

Two course outlines redeveloped and included in the next update of course outlines for the Worldwide. In addition, two standard assessment items are included in each redeveloped course outline.

#### Criterion for Success #1:

Two course outlines redeveloped and included in the next update of course outlines for the Worldwide. In addition, two standard assessment items are included in each redeveloped course outline.

### Results #1:

### Step 4

The Physical Sciences Discipline chair is also the course monitor for PHYS 102, Exploration in Physics and WEAX 201, Meteorology I course outlines. The two course outlines were completely rewritten and approved by March 15, 2008 to include updated learning outcomes and expanded topic descriptions that provides specific course content guidance for instructors teaching the courses. The supplemental material for this course in contained in the award winning WEAX 201 online course and includes standard exercises, problems,

Step 5

exercises, and chapters tests that assess student attainment of learning outcomes that are connected to General Education Program Outcomes. The content was used by instructors teaching the course in the classroom during this evaluation period with positive feedback from students.

### Have assessment results been used to make improvements?

- - Yes
- Pedagogical modifications
- v Technology-related changes were made

### Description:

As part of an ongoing evaluation of the PHYS 102, Exploration in Physics course, we worked with a team of more than a dozen instructors actively teaching the course using the new course outline and online course content to take student feedback on what elements of the content were not working as envisioned. We made changes to the experiment instructions in early modules of the course to ensure students better understood the experiment. In addition, based on initial results of the assessments tied to the course content, we made changes in how we engaged the students in discussions of pertinent topics that would enhance student learning. Over a period of four months, by making these changes we saw a significant increase in student scores on assessments. The quantitative evaluation of the standard assessment tools will be included in the next assessment cycle where we will assess student learning that maps to program outcomes. A similar process was used to assess the efficacy of the course content and student learning in the WEAX 201, Meteorology I course. Based on student and instructor feedback to the course monitor, we made changes to the student learning assessments in the course. As a result, we saw a commensurate reduction in student complaints about understanding the material and what was expected of them in the course. The quantitative evaluation of the standard assessment tools will be included in the next assessment cycle where we will assess student learning that maps to program outcomes.

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



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### **Outcome Title**

Improve Social Science and Economics Program Course Outlines

### **Outcome Statement**

### Step 2

Design, adopt and implement a General Education Department Course Outline template. Require all Course Monitors to use the Course Outline template for the 2008 updates. Course Outline template will reflect 1) how each learning objective is relevant to the University Mission, 2) how each learning objective is relevant to the General Education Outcomes, and 3) how each learning objective is assessed by all instructors. All Course Monitors will also be encouraged to provide specific content guidance and supplemental material to instructors teaching the courses. Specific content guidance should include standard exercises, assignments, problems, experiments, and all related rubrics etc that can be used to assess student attainment of learning outcomes that are connected to General Education Outcomes.

### **Measurement Approach 1**

### Means of Assessment



Other

Discipline Chair Review

### **Further Description:**

### Timeframe of Data Collection

2008 annual review of Course Outline will reflect adoption of Course Outline template created at Department meetings.

### Step 3

### Participants and Roles

Department Chair will approve Course Outline template by January 2008. Discipline Chair will provide template, checklist for update process and any supporting information to Course Monitors prior to requesting Course Outline update. Discipline Chair will also identify frequently taught courses in an effort to have suggested assignment and assessments of learning objectives included below the signature line in those Course Outlines.

Other Details

#### Criterion for Success

All Social Science and Economics Program Course Outlines dated 2008 will reflect the Course Outline template. Frequently taught courses identified by the Discipline Chair should have Course Outlines that include sample assessment and assignments for all learning objectives below the signature line.

### Criterion for Success #1:

All Social Science and Economics Program Course Outlines dated 2008 will reflect the Course Outline template. Frequently taught courses identified by the Discipline Chair should have Course Outlines that include sample assessment and assignments for all learning objectives below the signature line.

#### Results #1:

### Step 4

All Social Science and Economics Program Course Outlines are now in a new template that reflects how each course learning outcome maps to the General Education Program Outcomes. Some, but not all, course outlines provide specific content guidance and supplemental material to instructors teaching the course. The Social Sciences and Economics Associate Discipline chair is also the course monitor for ECON 210 and 211. The two course outlines were completely rewritten and approved by March 15, 2008 to include updated learning outcomes and expanded topic descriptions that proviedes specific course content guidance for instructors teaching the courses. The supplemental material for this course in contained in the ECON 210 and 211 online course and includes standard discussions, simulations and resources that assess student attainment of learning outcomes that are connected to General Education Program Outcomes. The content was used by instructors teaching the course in the classroom during this evaluation period with positive feedback.

### Have assessment results been used to make improvements?



Yes



Curriculum modifications

### Description:

#### Step 5

Improvements to the course outline have been made and have been communicated to all Course Monitors for their update of the Course Outlines for 2009.

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



No

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# **Outcome Title**

### Step 2

Non-Technical Writing Skills Competence

### **Outcome Statement**

Embry-Riddle Aeronautical University students are well prepared in non-technical writing skills.

### **Measurement Approach 1**

#### Means of Assessment

ERAU Alumni Survey (Details)

### **Further Description:**

**Timeframe of Data Collection** 

Participants and Roles

Other Details

#### Criterion for Success

Eighty-five percent of Embry-Riddle Aeronautical University graduates will rate their general non-technical writing preparation as good or excellent on the ERAU Alumni Feedback Survey.

### **Measurement Approach 2**

### Means of Assessment

ERAU Employer Feedback Survey (Details)

### **Further Description:**

**Timeframe of Data Collection** 

**Participants and Roles** 

Other Details

#### **Criterion for Success**

Ninety percent of employers will rate Embry-Riddle Aeronautical University graduates' general non-technical writing skills as good or excellent on the ERAU Employer Feedback Survey.

### Measurement Approach 3

### Means of Assessment

Other

creation of product / process (writing rubric)

### **Further Description:**

**Timeframe of Data Collection** 

Participants and Roles

#### Other Details

The rubric's purpose is to help instructors grade the writing portion of students' papers and give students specific feedback on how to improve their writing. This measure is based on NSSE 2006 data that show that a significant proportion of ERAU students say they do not get prompt feedback from instructors. The intention in creating this product / process is to provide assistance for instructors who are not writing teachers. Other NSSE data indicate the need for improvement in students' perceptions of the extent to which their experience at the institution contributed to their knowledge skills and personal development in writing clearly and effectively The plan is to measure ERAU students' responses when the NSSE is next conducted in 2009. A specific percentage improvement goal will be set in late 2008.

### **Criterion for Success**

A writing rubric will be created and disseminated to all ERAU instructors.

### Step 3

### Measurement Approach 4

#### Means of Assessment



Other

creation of supporting materials

### **Further Description:**

Timeframe of Data Collection

### **Participants and Roles**

#### Other Details

ENGL 123 is the primary composition course and is a requirement for all students who do not transfer composition credit. Providing additional materials as part of the course outline, which guides all instructors in the delivery of this course, is intended to strengthen quality and promote consistency.

### **Criterion for Success**

The course outline for ENGL 123 English Composition will be thoroughly reviewed to ensure that the course learning outcomes map upward to General Education Program goals and University goals. In addition, supporting materials in the form of suggested assignments and exercises will be created and provided for instructors. In addition, ENGL 123 will be strengthened by adding supplementary materials, such as suggested assignments, exams and grading rubrics to help enable instructors in the field devise appropriate assessment vehicles to measure student attainment of the course learning outcomes...

### **Measurement Approach 5**

### Means of Assessment



Other

writing assessment test

### **Further Description:**

**Timeframe of Data Collection** 

#### Participants and Roles

#### Other Details

This writing assessment is meant to measure student proficiency in writing and identify and counsel students who may need writing help.

#### Criterion for Success

A writing proficiency assessment test for all incoming students will be created and made available in 2008.

### Criterion for Success #1:

Eighty-five percent of Embry-Riddle Aeronautical University graduates will rate their general non-technical writing preparation as good or excellent on the ERAU Alumni Feedback Survey.

### Results #1:

No data available.

### Criterion for Success #2:

Ninety percent of employers will rate Embry-Riddle Aeronautical University graduates' general non-technical writing skills as good or excellent on the ERAU Employer Feedback Survey.

### Results #2:

71.9% of employers rated 2005 graduates' non-technical writing skills as good or excellent.

#### Criterion for Success #3:

A writing rubric will be created and disseminated to all ERAU instructors.

#### Results #3:

### Step 4

ERAU Writing Rubric was created and disseminated to all instructors in July 2008.

#### Criterion for Success #4:

The course outline for ENGL 123 English Composition will be thoroughly reviewed to ensure that the course learning outcomes map upward to General Education Program goals and University goals. In addition, supporting materials in the form of suggested assignments and exercises will be created and provided for instructors. In addition, ENGL 123 will be strengthened by adding supplementary materials, such as suggested assignments, exams and grading rubrics to help enable instructors in the field devise appropriate assessment vehicles to measure student attainment of the course learning outcomes...

#### Results #4:

ENGL 123 course outline reviewed and updated; supporting materials created.

### Criterion for Success #5:

A writing proficiency assessment test for all incoming students will be created and made available in 2008.

### Results #5:

Writing proficiency test created and made available in July 2008. Requirement stated in July 2008 catalog.

### Have assessment results been used to make improvements?



### Yes



Other (specify)

Supporting materials have been made available to instructors.

### Description:

The writing rubric has been made available to all instructors. A follow-up survey in under way, to determine how instructors are using the rubric and to gather ideas for improvement of the rubric. Supporting materials for ENGL 123 have been made available to all instructors in both document and electronic forms. The English writing assessment is now mandatory for all incoming students, regardless of transfer credit.

### Step 5

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



### Description:

The nearly 6% improvement in employers' assessment of graduates' non-technical writing skills is encouraging. However, it is still far short of the goal of 90%. Widespread use of the writing rubric should result in students receiving more feedback and better targeted feedback on their writing assignments in all their courses; it is hoped that this will improve writing skills. The writing assessment for incoming students will provide information for students about the level of their writing skills; it is hoped that this information will encourage them to strengthen their skills if necessary. However, more work needs to be done to provide courses in writing skills and to enforce standards to be met before registration in upper level courses.

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### **Outcome Title**

Physical Science Course Value

#### **Outcome Statement**

### Step 2

During their course work with ERAU-W, most students will complete a course in the physical sciences (physics, meteorology, environmental science, etc). The Student End of Course Survey contains an item that asks the respondent to comment on the value of the course. We will use the responses to this part of the

surveys to help assess how well the students are being prepared in the physical sciences competency.

### Measurement Approach 1

### Means of Assessment

ERAU Student Satisfaction Survey - Online Distance Learning (Details)

### **Further Description:**

**Timeframe of Data Collection** 

### Step 3

**Participants and Roles** 

Other Details

#### Criterion for Success

At least 90% of the responses to the statement: "How has your online class experience met your expectations?" as being Much better than I expected, Better than I expected or About what I expected

### Criterion for Success #1:

At least 90% of the responses to the statement: "How has your online class experience met your expectations?" as being Much better than I expected, Better than I expected or About what I expected

### Step 4

Based on the results of 555 student responses to the question "I would rate the overall value of the course to me as:" on the end of course surveys, 94.7% answered that the course was satisfactory, good or excellent.

Have assessment results been used to make improvements?



No

### Step 5

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



No

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### **Outcome Title**

Physical Science Course Value

### Step 2

### **Outcome Statement**

During their course work with ERAU-W, most students will complete a course in the physical sciences (physics, meteorology, environmental science, etc). The Student End of Course Survey contains an item that asks the respondent to comment on the value of the course. We will use the responses to this part of the surveys to help assess how well the students are being prepared in the physical sciences competency.

### Measurement Approach 1

### Means of Assessment

End of course evaluations

#### **Further Description:**

**Timeframe of Data Collection** 

**Participants and Roles** 

#### Other Details

#### Criterion for Success

At least 85% of the students will agree or strongly agree that: "20. My overall impression of this course is positive."

### Step 3

### **Measurement Approach 2**

#### Means of Assessment

ERAU Student Satisfaction Survey - Online Distance Learning (Details)

### **Further Description:**

**Timeframe of Data Collection** 

**Participants and Roles** 

Other Details

#### Criterion for Success

At least 85% of the students will agree that their overall impression of the course is positive.

#### Criterion for Success #1:

At least 85% of the students will agree or strongly agree that: "20. My overall impression of this course is positive."

### Results #1:

### Step 4

Based on the question "I would rate the overall value of the course to me as:" 86% rated the course as good or excellent. This percentage exceeds the 85% set at a target goal.

#### Criterion for Success #2:

At least 85% of the students will agree that their overall impression of the course is positive.

### Results #2:

Have assessment results been used to make improvements?



No

### Step 5

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



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### **Outcome Title**

Physical Sciences Courses

### **Outcome Statement**

#### Step 2

During their course work with ERAU-W, most students will complete a course in the physical sciences (physics, meteorology, environmental science, etc). The Student End of Course Survey contains items that ask the respondent to comment on the quality of the instructional materials and textbook used during the

course. We will use the responses to this part of the surveys to help assess how well the students are being prepared in the physical sciences competency.

### Measurement Approach 1

#### Means of Assessment

End of course evaluations

### **Further Description:**

**Timeframe of Data Collection** 

### Step 3

**Participants and Roles** 

#### Other Details

#### Criterion for Success

In the end of course evaluations, at least 85% of students in each of the Physical Science courses offered during the year will agree or strongly agree that: "The textbook and/or assigned readings were relevant and supported the learning objectives."

#### Criterion for Success #1:

In the end of course evaluations, at least 85% of students in each of the Physical Science courses offered during the year will agree or strongly agree that: "The textbook and/or assigned readings were relevant and supported the learning objectives."

### Step 4

### Results #1:

On the end of course survey students were asked to respond to the following: "I would rate the overall quality of the textbooks/instructional materials as:" and 87.3% responded good or excellent. The 87.3% exceeds the target goal of 85%.

### Have assessment results been used to make improvements?



### Step 5

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



No

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### Outcome Title

Readiness to work in a multicultural society

#### Step 2 **Outcome Statement**

ERAU graduates are well prepared to work effectively with people of different cultural, social, ethnic, political and/or religious backgrounds.

### Measurement Approach 1

### Means of Assessment

ERAU Employer Feedback Survey (Details)

#### **Further Description:**

Timeframe of Data Collection

### **Participants and Roles**

Other Details

#### Criterion for Success

Employers will rate 88% of ERAU graduates as good or excellent on the item "Understanding other people and other points of view."

### **Measurement Approach 2**

#### Means of Assessment

End of course evaluations

### **Further Description:**

**Timeframe of Data Collection** 

**Participants and Roles** 

Other Details

#### Criterion for Success

86% of students will rate the value of their Humanities courses as good or excellent on student end-of-course surveys.

### Measurement Approach 3

#### Means of Assessment



Other

new course

### **Further Description:**

Timeframe of Data Collection

### **Participants and Roles**

### Other Details

Step 3

Humanities courses are the particular area of study in which students are expected to develop an understanding of and appreciation for the contributions of other cultures and other points of view. In response to an identified need for additional online upper level Humanities courses, this new course has been proposed, which is expected to broaden a student's appreciation for the contributions made by people of diverse cultures and backgrounds. Data from the 2006 NSSE indicate the need for improvement in ERAU students' perception of the extent to which has their experience at ERAU has contributed to their knowledge skills and personal development in understanding people of other racial and ethnic backgrounds. These perceptions will be assessed again during the 2009 NSSE. A specific percentage improvement goal will be set in late 2008.

### Criterion for Success

A new course entitled Science and Aviation/Aerospace Technology in Society will be offered in 2008.

### Measurement Approach 4

### Means of Assessment



Other

updating materials

### **Further Description:**

**Timeframe of Data Collection** 

### Participants and Roles

#### Other Details

Mapping of course learning outcomes to program goals and University goals is an important step in ensuring that a given course addresses attainment of the specified program and University goals.

#### Criterion for Success

All Humanities course outlines will be reviewed to ensure that the course learning outcomes map upward to General Education Program goals and University goals.

### Measurement Approach 5

### Means of Assessment



Development of online course

### **Further Description:**

**Timeframe of Data Collection** 

**NO DATA** 

### **Participants and Roles**

**NO DATA** 

#### Other Details

Values and ethics are of particular importance in a multicultural society, where people of varying backgrounds must work and live together.

### Criterion for Success

HUMN 330 Values and Ethics will be developed and made available for online delivery.

#### Criterion for Success #1:

Employers will rate 88% of ERAU graduates as good or excellent on the item "Understanding other people and other points of view."

### Results #1:

63.9% of employers rated 2005 graduates as good or excellent on the item "Understanding other people and other points of view."

#### Criterion for Success #2:

86% of students will rate the value of their Humanities courses as good or excellent on student end-of-course surveys.

### Results #2:

No data available.

### Criterion for Success #3:

### Step 4

A new course entitled Science and Aviation/Aerospace Technology in Society will be offered in 2008.

#### Results #3:

HUMN 400 entitled Science and Aviation/Aerospace Technology in Society created.

### Criterion for Success #4:

All Humanities course outlines will be reviewed to ensure that the course learning outcomes map upward to

General Education Program goals and University goals.

### Results #4:

All course outlines contain specific correlations to General Education Program goals, which are themselves mapped to University goals.

#### Criterion for Success #5:

HUMN 330 Values and Ethics will be developed and made available for online delivery.

#### Results #5:

HUMN 330 Values and Ethics has been developed and made available for online delivery.

### Have assessment results been used to make improvements?



✓ Pedagogical modifications

✓ Course(s) added

### Description:

HUMN 330 Values and Ethics was developed for online delivery. This should make it easier for more students to take this course. A new course, HUMN 400 Science and Aviation/Aerospace Technology in Society, was created.

#### Step 5

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

Yes - planned improvements can be made without new funds

### Description:

The employers' ratings for 2005 graduates were nearly 12% lower than those for 2004 graduates and more than 22% lower than those for 2003. Clearly, we need to do more to prepare our students in this area. The greater availability of HUMN 330, which explores values and ethics in a diverse, multi-cultural society and the new course, HUMN 400, with its interdisciplinary emphasis, may help with this.

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