

# Standing Requirements

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## Program 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. 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, economics, 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.

Embry-Riddle Aeronautical University's general education program encourages effective learning and provides a coherent base for students to pursue their academic specializations. In specific support of the goals of general education,

candidates for bachelor degrees must complete course work or demonstrate competency in the following areas: English, Mathematics, Physical Sciences, and Social Sciences and Economics.

## Program Alignment to University Mission

Form: [Alignment to University Mission](#)

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## ERAU University Mission Statement

Our mission is to teach the science, practice and business of aviation and aerospace, preparing students for productive careers<sup>1</sup> and leadership roles in service around the world.<sup>2</sup>

Our technologically enriched, student-centered environment<sup>3</sup> emphasizes learning through collaboration and teamwork,<sup>4</sup> concern for ethical and responsible behavior,<sup>5</sup> cultivation of analytical<sup>6</sup> and management abilities,<sup>7</sup> and a focus on the development of the professional skills needed for participation in a global community.<sup>8</sup> 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<sup>9</sup> and knowledge discovery,<sup>10</sup> in an interpersonal environment that supports the unique needs of each individual.<sup>11</sup> 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.

### \* Program Alignment to University Mission

## Program Alignment to University Mission

Select all that apply.

<sup>1</sup>Preparing students for productive careers

<sup>2</sup>Preparing students for leadership roles in service around the world

<sup>3</sup>Technologically enriched environment

<sup>4</sup>Emphasize learning through collaboration and teamwork

<sup>5</sup>Concern for ethical and responsible behavior

<sup>6</sup>Cultivate analytical abilities

<sup>8</sup>Develop the professional skills needed for participation in a global community

<sup>9</sup>Facilitating the highest standards of academic achievement

<sup>10</sup>Facilitating knowledge discovery

<sup>11</sup>Providing an interpersonal environment that supports the unique needs of each individual

## Program Outcomes

## FL - Embry-Riddle General Education Competency Set (Copy 2)

### General Education Competencies

Competency	Mapping
<p>Critical Thinking (DB, PC, WW) The student will apply knowledge at the synthesis level to define and solve problems within professional and personal environments.</p>	<p><b>Embry-Riddle General Education Competency Set:</b> Critical Thinking (DB, PC, WW)</p>
<p>Quantitative Reasoning (DB, PC, WW) The student will demonstrate the use of digitally-enabled technology (including concepts, techniques and tools of computing), mathematics proficiency &amp; analysis techniques to interpret data for the purpose of drawing valid conclusions and solving associated problems.</p>	<p><b>Embry-Riddle General Education Competency Set:</b> Quantitative Reasoning (DB, PC, WW)</p>
<p>Information Literacy (DB, PC, WW) The student will conduct meaningful research, including gathering information from primary and secondary sources and incorporating and documenting source material in his or her writing.</p>	<p><b>Embry-Riddle General Education Competency Set:</b> Information Literacy (DB, PC, WW)</p>
<p>Communication (DB, PC, WW) The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.</p>	<p><b>Embry-Riddle General Education Competency Set:</b> Communication (DB, PC, WW)</p>

Scientific Literacy (DB, PC, WW)  
 The student will be able to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests.

**Embry-Riddle General Education Competency Set:** Scientific Literacy (DB, PC, WW)

Cultural Literacy (DB, PC, WW)  
 The student will be able to analyze historical events, cultural artifacts, and philosophical concepts.

**Embry-Riddle General Education Competency Set:** Cultural Literacy (DB, PC, WW)

Lifelong Personal Growth (WW Only)  
 The student will be able to demonstrate the skills needed to enrich the quality of life through activities which enhance and promote lifetime learning.

**Embry-Riddle General Education Competency Set:** Lifelong Personal Growth (WW Only)

### General Education Outcome Set

#### Outcome

Outcome	Mapping
WW_BSGE_PO_01 Mathematical Reasoning:  Apply knowledge of college level mathematics to defining and solving problems.	<b>Embry-Riddle General Education Competency Set:</b> Critical Thinking (DB, PC, WW), Quantitative Reasoning (DB, PC, WW)
WW_BSGE_PO_02 Quantitative Analysis:  Apply statistical methods in	<b>Embry-Riddle General Education Competency Set:</b> Critical Thinking (DB, PC, WW), Information Literacy

the analysis and interpretation of data for the purpose of drawing valid conclusions relating to the solutions of problems.

(DB, PC, WW), Quantitative Reasoning (DB, PC, WW)

WW\_BSGE\_PO\_03  
Written Communication:

Communicate ideas in written form in both technical and non-technical areas.

**Embry-Riddle General Education Competency Set:** Communication (DB, PC, WW), Information Literacy (DB, PC, WW)

WW\_BSGE\_PO\_04  
Oral and Visual Communication:

Communicate ideas in non-written form, such as through oral presentations or visual media.

**Embry-Riddle General Education Competency Set:** Communication (DB, PC, WW), Information Literacy (DB, PC, WW)

WW\_BSGE\_PO\_05  
Ethical and Social Responsibility:

Recognize the importance of professional, ethical and social responsibility.

**Embry-Riddle General Education Competency Set:** Critical Thinking (DB, PC, WW), Cultural Literacy (DB, PC, WW), Scientific Literacy (DB, PC, WW)

WW\_BSGE\_PO\_06  
Environmental Awareness:

Understand the natural world, to include the impact of the environment on aerospace operations and aerospace operations on the environment, as well as everyday life and professional experiences.

**Embry-Riddle General Education Competency Set:** Critical Thinking (DB, PC, WW), Cultural Literacy (DB, PC, WW), Scientific Literacy (DB, PC, WW)

WW\_BSGE\_PO\_07

**Embry-Riddle General Education Competency Set:** Communication

Technological Literacy:  
Use digitally-enabled technology to organize and manipulate data, perform calculations, aid in solving problems, and communicate solutions, ideas, and concepts.

(DB, PC, WW), Critical Thinking (DB, PC, WW), Information Literacy (DB, PC, WW), Quantitative Reasoning (DB, PC, WW), Scientific Literacy (DB, PC, WW)

WW\_BSGE\_PO\_08  
Scientific Reasoning:  
Use scientific information in critical thinking and decision-making processes.

**Embry-Riddle General Education Competency Set:** Critical Thinking (DB, PC, WW), Quantitative Reasoning (DB, PC, WW), Scientific Literacy (DB, PC, WW)

WW\_BSGE\_PO\_09  
Teamwork:  
Function on multi-cultural and/or multi-disciplinary teams.

**Embry-Riddle General Education Competency Set:** Communication (DB, PC, WW), Cultural Literacy (DB, PC, WW), Lifelong Personal Growth (WW Only)

WW\_BSGE\_PO\_10  
Economic Reasoning:  
Apply economic principles to identify, formulate, and solve problems within professional and personal environments.

**Embry-Riddle General Education Competency Set:** Critical Thinking (DB, PC, WW), Information Literacy (DB, PC, WW), Quantitative Reasoning (DB, PC, WW)

WW\_BSGE\_PO\_11  
Professional Engagement:  
Identify and participate in professional and personal development activities through organizations and self-directed learning.

**Embry-Riddle General Education Competency Set:** Communication (DB, PC, WW), Cultural Literacy (DB, PC, WW), Lifelong Personal Growth (WW Only)

WW\_BSGE\_PO\_12  
Social Awareness:

**Embry-Riddle General Education Competency Set:** Critical Thinking (DB, PC, WW), Cultural Literacy (DB, PC, WW), Information Literacy (DB,

Understand contemporary issues in society.

PC, WW), Lifelong Personal Growth (WW Only)

WW\_BSGE\_PO\_13  
Multicultural Competence:

Recognize the complexity and diversity of the human experience, including cultural, aesthetic, psychological, philosophical, and spiritual dimensions.

**Embry-Riddle General Education Competency Set:** Cultural Literacy (DB, PC, WW), Lifelong Personal Growth (WW Only)

WW\_BSGE\_PO\_14  
Information Literacy:

Conduct and report research in accordance with professional standards.

**Embry-Riddle General Education Competency Set:** Communication (DB, PC, WW), Critical Thinking (DB, PC, WW), Information Literacy (DB, PC, WW), Quantitative Reasoning (DB, PC, WW)

## Curriculum Map

### Mapping Matrix

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#### **College of Arts & Sciences Curriculum Map**

**Alignment Set:** General Education Outcome Set

**Created:** 09/30/2013 10:00:17 am EDT

**Last Modified:** 10/29/2013 5:04:22 pm EDT

[\[Print View\]](#) [\[PDF\]](#)





# Assessment Schedule

## Mapping Matrix

### ➔ Assessment Schedule Mapped to Competencies

[\[Print View\]](#) [\[PDF\]](#)

**Alignment Set:** FL - Embry-Riddle General Education Competency Set (Copy 2)

**Created:** 10/11/2016 3:58:50 pm EDT

**Last Modified:** 10/11/2016 4:00:08 pm EDT

### Assessment Schedule Mapped to Competencies

Courses and Activities Mapped to FL - Embry-Riddle General Education Competency Set (Copy 2)

Show Competency Set Descriptions

Show Course/Activity Detail

#### General Education Competencies

**Critical Thinking (DB, PC, WW)**  
The student will apply knowledge at the synthesis level to define and solve problems within professional and personal environments.

**Quantitative Reasoning (DB, PC, WW)**  
The student will demonstrate the use of digitally-enabled technology (including concepts, techniques and tools of computing), mathematics proficiency & analysis techniques to interpret data for the purpose of drawing valid conclusions and solving associated problems.

**Information Literacy (DB, PC, WW)**  
The student will conduct meaningful research, including gathering information from primary and secondary sources and incorporating and documenting source material in his or her writing.

**Communication (DB, PC, WW)**  
The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.

**Scientific Literacy (DB, PC, WW)**  
The student will be able to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests.

**Cultural Literacy (DB, PC, WW)**  
The student will be able to analyze historical events, cultural artifacts, and philosophical concepts.

**Lifelong Personal Growth (WW Only)**  
The student will be able to demonstrate the skills needed to enrich the quality of life through activities which enhance and promote lifetime learning.

#### Courses and Learning Activities

Courses and Learning Activities	Critical Thinking (DB, PC, WW)	Quantitative Reasoning (DB, PC, WW)	Information Literacy (DB, PC, WW)	Communication (DB, PC, WW)	Scientific Literacy (DB, PC, WW)	Cultural Literacy (DB, PC, WW)	Lifelong Personal Growth (WW Only)
2016-2017 Assessment Cycle	✔	✔		✔			
2017-2018 Assessment Cycle			✔		✔	✔	✔

**Legend:** ✔ = Aligned

Last Modified: 10/11/2016 04:00:08 PM

created with  taskstream

# Gen Ed Assessment Schedule

**Alignment Set:** General Education Outcome Set

**Created:** 09/30/2013 10:53:43 am EDT

**Last Modified:** 10/11/2016 3:57:38 pm EDT

## Gen Ed Assessment Schedule

Courses and Activities Mapped to General Education Outcome Set

Show Outcome Descriptions  Show Course/Activity Detail

Outcome									
WW_BSCE_PO_01 Mathematical Reasoning Apply knowledge of college level mathematics to defining and solving problems.	WW_BSCE_PO_02 Quantitative Analysis Apply statistical methods in the analysis and interpretation of data for the purpose of drawing valid conclusions relating to the solutions of problems.	WW_BSCE_PO_03 Written Communication Communicate ideas in written form in both technical and non-technical areas.	WW_BSGE_PO_04 Oral and Visual Communication Communicate ideas in non-written form, such as through oral presentations or visual media.	WW_BSCE_PO_05 Ethical and Social Responsibility Recognize the importance of professional, ethical and social responsibility.	WW_BSCE_PO_06 Environmental Awareness Understand the natural world, to include the impact of the environment on aerospace operations and aerospace operations on the environment, as well as everyday life and professional experiences.	WW_BSGE_PO_07 Technological Literacy Use digitally-enabled technology to organize and manipulate data, perform calculations, aid in solving problems, and communicate solutions, ideas, and concepts.	WW_BSCE_PO_08 Scientific Reasoning Use scientific information in critical thinking and decision-making processes.	WW_BSCE_PO_09 Teamwork Function on multi-cultural and/or multi-disciplinary teams.	WW_BSGE_PO_10 Economic Reasoning Apply economic principles to identify, formulate, and solve problems within professional and personal environments.

Courses and Learning Activities									
2013-14 Assessment Cycle					✓			✓	
2014-15 ASSESSMENT CYCLE		✓	✓						
2015-16 ASSESSMENT CYCLE			✓		✓			✓	
2016-2017 Assessment Cycle	✓	✓	✓	✓	✓	✓	✓	✓	✓

Legend: ✓ = Aligned

Last Modified: 10/11/2016 03:57:38 PM

## Additional Information (Optional)

# 2017-2018 Assessment Cycle

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## Contact Information

Form: [Contact Information](#)

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**Please fill out the form with the information of the person responsible for the assessment plan.**

### \*Contact Name

First

Debra

Last

Bourdeau

### \*Email

taylo13f@erau.edu

### \*Phone Number

678-613-4261

## Assessment Plan

Measures

## FL - Embry-Riddle General Education Competency Set (Copy 2)

General Education Competencies

### Outcome: Information Literacy (DB, PC, WW)

The student will conduct meaningful research, including gathering information from primary and secondary sources and incorporating and documenting source material in his or her writing.

**Measure:** Information Literacy: RSCH 202--Literature Review (Final)

▼ *Course level; Direct - Student Artifact*

Details/Description:	The Literature Review Assignment builds on the previous annotated bibliography assignment. The primary purpose of this assignment is to help students understand that the literature review is an integral part of any research project and how it lays the groundwork for the further investigation they will do.
Criterion for Success:	Criteria for Success: 80% of the students score 70% or higher
Timeframe of Data Collection:	January 2018
Key/Responsible Personnel:	Donna Roberts

**Measure:** Information Literacy: RSCH 202

▼ *Course level; Indirect - Survey*

Details/Description:	The following statement will be added to the End of Course evaluations for student response:  This course has improved my ability to conduct meaningful research, including gathering information from primary and secondary sources and incorporating and documenting source material in my writing.
Criterion for Success:	75% of respondents will answer AGREE or STRONGLY AGREE
Timeframe of Data Collection:	October 2017 term
Key/Responsible Personnel:	Donna Roberts

**Outcome: Scientific Literacy (DB, PC, WW)**

The student will be able to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests.

**Measure:** Scientific Literacy: MATH 222 Business Statistics

▼ *Course level; Indirect - Survey*

Details/Description:	Scientific Literacy is a program outcome for general education at the Embry-Riddle Worldwide Campus. It is critical that MATH 222 students "be able to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests."
Criterion for Success:	70% of online student respondents agree or strongly agree with the statement "The textbook and/or assigned readings were relevant and supported the learning objectives," question 18 on the End of Course Evaluation.
Timeframe of Data Collection:	January 2018 term.
Key/Responsible Personnel:	Primary - Bobby L. McMasters

**Measure:** Scientific Literacy: MATH 222 Business Statistics

▼ *Course level; Direct - Exam*

Details/Description:	Scientific Literacy is a program outcome for general education at the Embry-Riddle Worldwide Campus. It is critical that MATH 222 students, completing a new "Simulation Based Inference" course in statistics, "be able to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests."
Criterion for Success:	70% of online students will score 70% or higher on the Final Exam.
Timeframe of Data Collection:	January 2018 term.
Key/Responsible Personnel:	Primary - Bobby L. McMasters

**Measure:** Scientific Literacy: MATH 106 (Algebra and Trigonometry)

▼ *Course level; Direct - Exam*

Details/Description:	Midterm exam scores reflect the foundational knowledge necessary for success in subsequent
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mathematics courses which contain significant overlap with the second half of MATH 106

Criterion for Success: At least 80% of students who complete the course have midterm exam scores at 75% or better.

Timeframe of Data Collection: October 2017 and January 2018 terms

Key/Responsible Personnel: Beverly Wood

**Measure:** Scientific Literacy: MATH 106 (Algebra and Trigonometry)

▼ *Course level; Indirect - Survey*

Details/Description: The following statement will be added to student End of Course surveys:

This course has improved my ability to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests.

Criterion for Success: 75% of respondents will answer AGREE or STRONGLY AGREE

Timeframe of Data Collection: October 2017 - January 2018

Key/Responsible Personnel: Beverly Wood

**Measure:** Scientific Literacy: PHYS 102

▼ *Course level; Direct - Student Artifact*

Details/Description: Module 2 Experiment: Motion, Post-Lab Question #5. This post-lab question was chosen because it requires the student to not only understand the physics concepts and apply them to the immediate problem at hand but to also to apply the concept in a new scenario.

Criterion for Success: Application Goal: 75% of students score 80% or more of available point

Humanistic Goal: 90% of students attempted the question

Timeframe of Data Collection: August 2017

Key/Responsible Personnel: JR Hanamean (primary); Emily Faulconer

**Measure:** Scientific Literacy: PHYS 102

▼ *Course level; Indirect - Survey*

Details/Description: As an indirect measure of scientific literacy, we will add standardized question(s) to the end of course evaluation. This data will support the direct assessment.

Criterion for Success: 75% of respondents will reply in the "Agree" or "Strongly Agree" categories.

Timeframe of Data Collection: August 2017

Key/Responsible Personnel: JR Hanamean (primary) and Emily Faulconer

**Measure:** Scientific Literacy: RSCH 202--Research Methodology

▼ *Course level; Direct - Student Artifact*

Details/Description: The primary purpose of this Research Methodology Assignment is to give students experience in determining appropriate research methods to be used with the research question and hypotheses they have developed and with the type data they would need to collect to answer their question. In this activity students create a report that has the following paragraphs: Study Design, Population and Sample, Variables and Measures, Data Collection Methods, and Data Analysis Methods.

Criterion for Success: 80% of the students score 70% or higher

Timeframe of Data Collection: October 2017 and January 2018 term

Key/Responsible Personnel: Donna Roberts

**Measure:** Scientific Literacy: RSCH 202--Research Methodology

▼ *Course level; Indirect - Survey*

Details/Description:	The following statement will be added to End of Course evaluations for student response:  This course has improved my ability to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests.
Criterion for Success:	75% of respondents will answer AGREE or STRONGLY AGREE.
Timeframe of Data Collection:	October 2017
Key/Responsible Personnel:	Donna Roberts

**Outcome: Cultural Literacy (DB, PC, WW)**

The student will be able to analyze historical events, cultural artifacts, and philosophical concepts.

**Measure:** Cultural Literacy: HUMN 210 (World Culture)

▼ *Course level; Direct - Student Artifact*

Details/Description:	The final research paper asks students to demonstrate their understanding of culture as a broad concept that includes both artistic works as well as customs, daily practices and a society's worldview and presuppositions.
Criterion for Success:	80% of the class earns a 70 or above
Timeframe of Data Collection:	October 2017
Key/Responsible Personnel:	Maryam El-Shall



**Measure:** Cultural Literacy: HUMN 210 (World Culture)

▼ *Course level; Indirect - Survey*

Details/Description: In the end of course surveys, students will reflect on their understanding of world culture and assess their own learning. They will be asked to respond to this statement: This course has improved my ability to analyze historical events, cultural artifacts, and philosophical concepts.

Criterion for Success: 80% strongly agree or agree

Timeframe of Data Collection: October 2017

Key/Responsible Personnel: Maryam El-Shall

**Measure:** Cultural Literacy: HUMN 330 (Values and Ethics)

▼ *Course level; Indirect - Survey*

Details/Description: The following statement will be added to End of Course surveys for student response:

This course has improved my ability to analyze historical events, cultural artifacts, and philosophical concepts.

Criterion for Success: 75% of respondents will answer AGREE or STRONGLY AGREE

Timeframe of Data Collection: October 2017

Key/Responsible Personnel: Donna Roberts

**Measure:** Cultural Literacy: HUMN 330 (Values and Ethics): The Ethics of Japanese-American Internment During WWII

▼ *Course level; Direct - Student Artifact*

Details/Description:	Students watch a short video on the Japanese-American Internment during WWII and engage in discussion answering the following questions: Was the internment morally justified? Was the paying of reparations? Is it an example of cultural relativism during its era? Are there any examples today when the US might be practicing or engaging in cultural relativism to morally justify our behavior (foreign or domestic policies)?
Criterion for Success:	80% of the students score 70% or higher
Timeframe of Data Collection:	October 2017-January 2018
Key/Responsible Personnel:	Donna Roberts

**Outcome: Lifelong Personal Growth (WW Only)**

The student will be able to demonstrate the skills needed to enrich the quality of life through activities which enhance and promote lifetime learning.

**Measure:** Lifelong Personal Growth: ENGL 123

▼ *Course level; Indirect - Survey*

Details/Description:	The following statement will be added to student End of Course surveys:  This course has improved my ability to demonstrate the skills needed to enrich the quality of life through activities which enhance and promote lifetime learning.
Criterion for Success:	80% of respondents will answer AGREE or STRONGLY AGREE
Timeframe of Data Collection:	October 2017; November 2017 and January 2018 terms
Key/Responsible Personnel:	Zachary Dixon

**Measure:** Lifelong Personal Growth: ENGL 123 (Classical Argument)

▼ *Course level; Direct - Student Artifact*

Details/Description:	"Classical Argument Position Paper" Essay: The objective of this assignment is for students to articulate an argumentative position statement, compose a well rationalized and thoughtful defense of that position, and support their defense with adequate research-based evidence. These represent vital skills students need to navigate and compete in the information driven economies they occupy.
Criterion for Success:	Overall goal of an average course grade of 80% or higher on this essay assignment.
Timeframe of Data Collection:	October 2017 November 2017 January 2017
Key/Responsible Personnel:	Zachary Dixon

**Measure:** Lifelong Personal Growth: HUMN 330 (Values and Ethics Reflection Paper)

▼ *Course level; Direct - Student Artifact*

Details/Description:	The objective of this assignment is for students to relate the material from the textbook readings and course discussions to experiences in their lives. First, they develop a statement that encompasses an overall picture of their values and ethics. Second, drawing on the various ethical frameworks they have studied in the course, they explain their ethical perspective. The final section of the paper asks students to think about their personal life and the way they were brought up in terms of a specific ethical framework or frameworks.
Criterion for Success:	80% of the students score 70% or higher
Timeframe of Data Collection:	October 2017 - January 2018
Key/Responsible Personnel:	Donna Roberts

**Measure:** Lifelong Personal Growth: HUMN 330 (Values and Ethics)

▼ *Course level; Indirect - Survey*

Details/Description:

The following statement will be added to End of Course surveys for student response:

This course has improved my ability to demonstrate the skills needed to enrich the quality of life through activities which enhance and promote lifetime learning.

Criterion for Success:

75% of respondents will AGREE or STRONGLY AGREE

Timeframe of Data Collection:

October 2017

Key/Responsible Personnel:

Donna Roberts

**Additional/Ad-hoc Program Improvements (Optional)**

**Attachments**