Standing Requirements
Program Mission Statement

Recognizing its general and special missions in education, Embry-Riddle 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 including the arts and humanities, the social sciences, 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.

ERAU University Mission Statement

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

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

Select all that apply.

- [1]Preparing students for productive careers
- [2]Preparing students for leadership roles in service around the world
- [4]Emphasize learning through collaboration and teamwork
- [5]Concern for ethical and responsible behavior
- [6]Cultivate analytical abilities
- [8]Develop the professional skills needed for participation in a global community
- [9]Facilitating the highest standards of academic achievement
- [10]Facilitating knowledge discovery
- [11]Providing an interpersonal environment that supports the unique needs of each individual

Standing Requirements
Program Outcomes

FL - Embry-Riddle General Education Competency Set (Copy 1)

General Education Competencies

Competency	Mapping
Critical Thinking (DB, PC, WW) The student will apply knowledge at the synthesis level to define and solve problems within professional and personal environments.	**Embry-Riddle General Education Competency Set:** Critical Thinking (DB, PC, WW)
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.	**Embry-Riddle General Education Competency Set:** Quantitative Reasoning (DB, PC, WW)
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.	**Embry-Riddle General Education Competency Set:** Information Literacy (DB, PC, WW)
Communication (DB, PC, WW) The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.	**Embry-Riddle General Education Competency Set:** Communication (DB, PC, WW)
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)	**Embry-Riddle General Education Competency Set:**

The student will be able to analyze historical events, cultural artifacts, and philosophical concepts.	Cultural Literacy (DB, PC, WW)
Collaborative Learning (DB, PC, WW) The student will be able to work effectively with others on diverse teams to produce quality written documents, oral presentations and/or meaningful projects. The student will assist in organizing others to accomplish a shared task, contribute actively to a group, and work to resolve any conflicts that occur.	**No Mapping**

Last Modified: 09/28/2018 11:07:05 AM

Prescott General Education Program Map

Courses and Activities Mapped to FL - Embry-Riddle General Education Competency Set (Copy 1)

	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.	Collaborative Learning (DB,PC, WW) The student will be able to work effectively with others on diverse teams to produce quality written documents, oral presentations and/or meaningful projects. The student will assist in organizing others to accomplish a shared task, contribute actively to a group, and work to resolve any conflicts that occur.
Communication Theory and Skills							
COM 122 English Composition	I		I	I	I		
COM 219 Speech	I		I	P		I	I
COM 221 Technical Report Writing	I		I	P		I	I
COM 222 Business Communication	I		I	P		I	I
COM 223 Intelligence Writing	P		P	P		P	I
Humanities/Social Sciences							
HU 144 Studies in Art	I		I	I	I	I	I
HU 145 Themes in Humanities	I		I	I	I	I	I
HU 146 Music Appreciation and Criticism	I		I	I	I	I	
Lower-Level Social Sciences							
EC 200 Economic Survey	I	I		I	I	P	I
EC 210 Microeconomics	P	I		I	I	I	I
EC 211 Macroeconomics	P	I		P	I	P	P
EC 225 Engineering Economics	P	M		P	P	P	I
PSY 101 Introduction to Psychology	I			I	I	I	I
PSY 222 Introduction to Industrial/Organizational Psychology	I	I	I	P	I	I	
PSY 226 Statistics for Organizational Analysis & Research	I	P	I	P	P	I	
SS 110 World History	I	I	P	I	I	P	
SS 204 Introduction to Geography	I	I	I	I	I	P	
SS 210 Introduction to Sociology	I		I	I	I	I	I
SS 260 Cultural Anthropology	I		I	I	I	P	
SS 290 History of Modern Europe	I		I	I		P	

	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.	**Collaborative Learning (DB,PC, WW)** The student will be able to work effectively with others on diverse teams to produce quality written documents, oral presentations and/or meaningful projects. The student will assist in organizing others to accomplish a shared task, contribute actively to a group, and work to resolve any conflicts that occur.
Upper-Level Humanities							
HU 325 Exploring Film	P		P	P		P	
HU 330 Values and Ethics	P	P	P	P	P	P	P
HU 335 Technology and Modern Civilization	P		P	P	P	P	P
HU 355 Creative Writing	P			P		P	P
HU 420 Applied Cross-Cultural Communication	P		P	P		P	P
RS 306 Studies in Middle Eastern History and Culture	P		P	P	P	P	
RS 307 Islam and Arabic Culture	P	P	P	P		P	P
RS 310 Modern Middle East in World Affairs	P	P	P	I		P	P
Upper-Level Social Sciences							
EC 315 Managerial Economics	P	P		P	P	I	P
EC 317 Global Economics, Politics and Culture	P	I	P	I	P	M	P
PSY 306 Deceptions	P		P	P	P	I	I
PSY 350 Social Psychology	P		P	P	P	P	P
SS 311 U.S Military History 1775-1900	I		P	I		P	
SS 321 U.S. Military History 1900-Present	I		P	I		P	
SS 326 Russian-U.S. Relations	P		P	P	P	P	
SS 360 Environmental Law	P	I	I	I	I	P	I
SS 410 International human Rights	P	I	I	P	I	I	I
Computer Science/Information Technology							
BA 222 Business Computer Applications	P	P	I	I			P
CS 118 Fundamentals of Computer Programming	I	I		I			
CS 125 Computer Science I	I	I		I			
EGR 115 Introduction to Computing for Engineers	I	I					
IT 109 Introduction to Computers and Applications	I	I	I	I			
Mathematics							
MA 111 College Mathematics for Aviation I	I	I	I	I	I		

	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.	**Collaborative Learning (DB,PC, WW)** The student will be able to work effectively with others on diverse teams to produce quality written documents, oral presentations and/or meaningful projects. The student will assist in organizing others to accomplish a shared task, contribute actively to a group, and work to resolve any conflicts that occur.
MA 112 College Mathematics for Aviation II	I	I	I	I	I		
MA 120 Quantitative Methods I	I	I					
MA 143 Precalculus Essentials	I	I					
MA 222 Business Statistics	I	I	I		I		
MA 241 Calculus and Analytical Geometry I	I	I		I			
Physical Sciences							
BIO 104 Foundations of Biology I	I	I	I	I	I		I
BIO 313 Riparian Ecology	I		I	I	P		
CHM 105 General Chemistry	I	I	I	I	I		I
PS 113 Introductory Physics I	I	I	I	I	I		I
PS 114 Introductory Physics II	I	I	I	I	I		
PS 150 Physics for Engineers I	I	I					
PS 160 Physics for Engineers II	I	I	I	I	I		
WX 201 Survey of Meteorology	I	I	I	I	I		I

Legend :   I   Introduced   P   Practiced   M   Mastered

PC Gen Ed Program Outcomes 2018 Onward
Courses and Activities Mapped to FL - Embry-Riddle General Education Competency Set (Copy 1)

	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.	**Collaborative Learning (DB,PC, WW)** The student will be able to work effectively with others on diverse teams to produce quality written documents, oral presentations and/or meaningful projects. The student will assist in organizing others to accomplish a shared task, contribute actively to a group, and work to resolve any conflicts that occur.
Courses and Learning Activities							
2018-2019 Assessment Cycle		✔	✔	✔			
2019-2020 Assessment Cycle							
2020-2021 Assessment Cycle							
2021-2022 Assessment Cycle							
2022-2023 Assessment Cycle							

Legend :   ✔ = Aligned

Last Modified: 09/28/2018 11:04:32 AM

Created with **watermark**

2017-2018 Assessment Cycle
Assessment Plan with Results and Proposed Improvements

Result per Measure

PC_Gen_Ed Program Outcomes

Outcome

Outcome: PC_GENED_PO_02 Writing
Construct effective written documents for technical and non-technical audiences.

▼ **Measure:** Comparison of writing samples
Course level Direct - Student Artifact

Details/Description:	Pre- and post-course writing samples from selected sections of COM 221 and the engineering design capstone courses will be compared.
Criterion for Success:	On the post-test students will score an aggregate mean of 70%, furthermore students will show a significant improvement from pre- to post-measures of at least 10% of the mean aggregate score.
Timeframe of Data Collection:	Fall 2017 and Spring 2018
Key/Responsible Personnel:	To be determined.

Results for Comparison of writing samples

Summary of Results:	Samples were collected from 174 students. On the pre-test, the aggregate mean score was 76.4%. On the post-test, the aggregate mean score was 91.6%. Therefore, on the post-test students scored more than the minimum benchmark of 70%; moreover they showed a significant improvement from pre-

to post-test of 15.2%, more than the minimum benchmark of 10% increase.

Results :	Attainment level: Criterion for Success (not met/ met/ exceeded): Met
Sample Size/ Number of Students Assessed:	174 students
Proposed Improvements:	None.

Measure: Student evaluations
Course level Indirect - Survey

Details/Description:	Student evaluations of COM 221 will be used as an indirect assessment of students' perception of their ability to communicate effectively. This performance indicator will be assessed by the question: "My experiences in this course have improved my ability to communicate effectively."
Criterion for Success:	At least 70% of students will respond Agree or Strongly Agree, and no more than 10% of students will respond Disagree or Disagree Strongly.
Timeframe of Data Collection:	Fall 2017 and possibly Spring 2018
Key/Responsible Personnel:	Dr. Angela Beck, HU/COM

Results for Student evaluations

Summary of Results:	174 students surveyed, 86 responded. Of those 86 students, 84 (97.7%) responded Agree or Strongly Agree to this question , and 0 students responded Disagree or Disagree Strongly; therefore, both benchmarks were met.
Results :	Attainment level: Criterion for Success (not met/ met/ exceeded): Met

| Sample Size/ Number of Students Assessed: | 86 students |
| Proposed Improvements: | None. |

Outcome: PC_GENED_PO_03 Speech

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

Measure: Capstone course/senior design project
Course level Direct - Student Artifact

Details/Description:	Students enrolled in all AE/ME Engineering Capstone courses will be assessed on their final capstone presentations. These Engineering Capstone briefing assessments will use as instrument developed by teams of HU/COM and AE faculty over the past 9 years. This instrument provides a discreet item analysis of critical oral presentation elements (e.g., pacing, volume, eye contact, engagement, fillers, appropriate register, appropriate vocabulary, good teamwork, question-and-answer skills). Student scores are used for general education assessment, ABET assessment, and a portion of each student's final course grade.
Criterion for Success:	All students in all sections of AE/ME capstone in each semester will have their final briefing scores aggregated; students will score an aggregate mean of 75% in Fall 2017 and 75% in Spring 2018.
Timeframe of Data Collection:	Fall 2017 and Spring 2018
Key/Responsible Personnel:	HU/COM and AE/ME faculty teaching Engineering Capstone courses in Fall 2017 and Spring 2018 will assess all students in all sections of AE/ME

capstone.

Results for Capstone course/senior design project

Summary of Results:	Scores were collected from 75 students in Fall 2017 and from 98 students in Spring 2018. Student aggregate scores for end-of-term briefings in Fall 2017 were 92.5% and in Spring 2018 were 97.5%. Both sets of scores were well above the 75% benchmark.
Results :	Attainment level: Criterion for Success (not met/ met/ exceeded): Met
Sample Size/ Number of Students Assessed:	173 students
Proposed Improvements:	None

▼ **Measure:** Student evaluations
Course level Indirect - Survey

Details/Description:	On the end-of-course evaluations for COM 219 students will be asked if they agree or disagree with the following statement: "This course has improved my ability to communicate."
Criterion for Success:	At least 70% of the students will agree or strongly agree with the statement: "This course has improved my ability to communicate."
Timeframe of Data Collection:	Fall 2017 and Spring 2018
Key/Responsible Personnel:	To be determined

Results for Student evaluations

Summary of Results:	Out of 119 students in COM 219, 77 students filled out course evaluations

(64.7%). Of the 77 respondents, 68 (88.3%) agreed or strongly agreed with the statement.

Results :	Attainment level: Criterion for Success (not met/ met/ exceeded): Met
Sample Size/ Number of Students Assessed:	77
Proposed Improvements:	None

Outcome: PC_GENED_PO_05 Ethics

Recognize the importance of ethical responsibility both professionally and socially.

▼ **Measure:** Ethical argument for a professional dilemma
Course level Direct - Exam

Details/Description:	Selected questions from the HU 330: Values and Ethics final exam will be graded to assess students' ability to articulate an ethical argument in response to a professional dilemma using recognized ethical systems. All students enrolled in Fall 2017 in either HU 330.01 or HU 330.02 will participate (approx. 60 students).
Criterion for Success:	At least 70% of the students will score above 70% on the selected question, AND no more than 10% of the students will score below 50% on the selected question.
Timeframe of Data Collection:	Fall 2017
Key/Responsible Personnel:	Dr. Kelly Lambert

Results for Ethical argument for a professional dilemma

Summary of Results:	As a result of miscommunication, data was not submitted for this assessment item in the AY 2017-2018 cycle.
Results :	Attainment level: Criterion for Success (not met/ met/ exceeded): Not Met
Sample Size/ Number of Students Assessed:	
Proposed Improvements:	Now that PC has a new general education committee that has a more thorough understanding of general education and has updated the PC Gen Ed Competencies to be in compliance with university policy, we are in a position to more actively oversee the assessment process and communicate with the faculty involved. We do not anticipate further omissions in future assessment data. We also note that as a result of bringing PC Gen Ed Competencies into alignment with the university, this category is not obsolete as of Fall 2018.

▼ **Measure:** Ethical argument for lifelong learning
Course level Direct - Exam

Details/Description:	Selected questions from the HU 330: Values and Ethics final exam will be graded to assess students' ability to articulate an ethical argument justifying the need to engage in lifelong learning. All students enrolled in Fall 2017 in either HU 330.01 or HU 330.02 will participate (approx. 60 students).
Criterion for Success:	At least 70% of the students will score above 70% on the selected question, AND no more than 10% of the students will score below 50% on the selected question.

Timeframe of Data Collection:	Fall 2017
Key/Responsible Personnel:	Dr. Kelly Lambert

Results for Ethical argument for lifelong learning

Summary of Results:	As a result of miscommunication, data was not submitted for this assessment item in the AY 2017-2018 cycle.
Results :	Attainment level: Criterion for Success (not met/ met/ exceeded): Not Met
Sample Size/ Number of Students Assessed:	
Proposed Improvements:	Now that PC has a new general education committee that has a more thorough understanding of general education and has updated the PC Gen Ed Competencies to be in compliance with university policy, we are in a position to more actively oversee the assessment process and communicate with the faculty involved. We do not anticipate further omissions in future assessment data. We also note that as a result of bringing PC Gen Ed Competencies into alignment with the university, this category is not obsolete as of Fall 2018.

▼ **Measure:** Student Evaluations
Course level Indirect - Survey

Details/Description:	Student evaluations of HU 330 will be used as an indirect assessment of students' perception of their understanding of professional and ethical responsibilities. This performance indicator will be assessed by the question: "My experiences in this course have improved my understanding of

professional and ethical responsibility."

Criterion for Success:	At least 70% of students will respond Agree or Strongly Agree, and no more than 10% of students will respond Disagree or Disagree Strongly.
Timeframe of Data Collection:	Fall 2017
Key/Responsible Personnel:	Dr. Kelly Lambert HU/COM

Results for Student Evaluations

Summary of Results:	As a result of miscommunication, data was not submitted for this assessment item in the AY 2017-2018 cycle.
Results :	Attainment level: Criterion for Success (not met/ met/ exceeded): Not Met
Sample Size/ Number of Students Assessed:	
Proposed Improvements:	Now that PC has a new general education committee that has a more thorough understanding of general education and has updated the PC Gen Ed Competencies to be in compliance with university policy, we are in a position to more actively oversee the assessment process and communicate with the faculty involved. We do not anticipate further omissions in future assessment data. We also note that as a result of bringing PC Gen Ed Competencies into alignment with the university, this category is not obsolete as of Fall 2018.

Outcome: PC_GENED_PO_08 Economics
Apply economic principles to identify, formulate, and solve problems.

▼ **Measure:** Selected test questions
Course level Direct - Exam

Details/Description:	Selected questions from the EC 210 final exam will be graded to assess student understanding and application of basic principles in economics. All students in selected sections of EC 210 will participate.
Criterion for Success:	The mean score on these questions will be at least 70%.
Timeframe of Data Collection:	Fall 2017
Key/Responsible Personnel:	Dr Ricardo A Carreras

Results for Selected test questions

Summary of Results:	The average grade on Question 9 (representing the first part of the course) is a 73.92%. The average grade on Question 4 (representing the second part of the course) is 75.25% The average grade on Question 8 (representing the third part of the course) is 74.12%
	The overall average grade on the three questions assessed is 74.43%, which is above the threshold for success on this measure.
Results :	Attainment level: Criterion for Success (not met/ met/ exceeded): Met
Sample Size/ Number of Students Assessed:	59 students
Proposed Improvements:	None; assessment results suggest maintenance of the current program.

Overall Reflection

Assessment for PC_GENED_PO_05 Ethics was not completed this year due to a miscommunication.

Last Modified: 10/24/2018 04:11:00 PM EDT