

Standing Requirements

Program Mission Statement

General Education Program Mission

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. Over 4500 students are enrolled in the General Education Program at Daytona Beach.

Program Alignment to University Mission

ERAU University Mission Statement

Our mission is to teach the science, practice and business of aviation and aerospace, preparing students for productive careers¹ and leadership roles in service around the world.²

Our technologically enriched, student-centered environment³ emphasizes learning through collaboration and teamwork,⁴ concern for ethical and responsible behavior,⁵ cultivation of analytical⁶ 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 achievement⁹ 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

Program Alignment to University Mission

Select all that apply.

¹Preparing students for productive careers

²Preparing students for leadership roles in service around the world

³Technologically enriched environment

⁴Emphasize learning through collaboration and teamwork

⁵Concern for ethical and responsible behavior

⁶Cultivate analytical abilities

⁸Develop the professional skills needed for participation in a global community

⁹Facilitating the highest standards of academic achievement

¹⁰Facilitating knowledge discovery

Program Outcomes

DB_Gen_Ed Program Outcomes

Outcome

Outcome

PO_01

Apply knowledge of college-level mathematics for defining and solving problems.

Mapping

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

PO_02

Construct effective written documents for technical and non-technical audiences.

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

PO_03

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

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

PO_04

Conduct and report research accurately and in accordance with professional standards.

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

PO_05

Recognize the importance of ethical responsibility both professionally and socially.

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

PO_06

Identify some of the important results of scientific inquiry in the physical and natural sciences, and use scientific information in critical thinking and decision-making.

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

PO_07

Use technology to organize and manipulate information to communicate ideas and concepts.

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

PO_08

Apply economic principles to identify, formulate, and solve problems.

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

PO_09

Demonstrate an awareness and understanding of the values communicated through the humanities.

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

PO_10

Describe some of the historical and contemporary issues that affect societies.

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

PO_11

Recognize the complexity of human experience from a variety of perspectives, for example, cultural, aesthetic, social, technological, scientific, psychological, philosophical, and historical.

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

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>Embry-Riddle General Education Competency Set: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 & analysis techniques to interpret data for the purpose of drawing valid conclusions and solving associated problems.</p>	<p>Embry-Riddle General Education Competency Set: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>Embry-Riddle General Education Competency Set: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>Embry-Riddle General Education Competency Set:Communication (DB, PC, WW)</p>
<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.</p>	<p>Embry-Riddle General Education Competency Set:Scientific Literacy (DB, PC, WW)</p>
<p>Cultural Literacy (DB, PC, WW) The student will be able to analyze historical events, cultural artifacts, and philosophical concepts.</p>	<p>Embry-Riddle General Education Competency Set:Cultural Literacy (DB, PC, WW)</p>

 **Curriculum Map**

Mapping Matrix

 [**DB General Education Curriculum Map**](#) 
Alignment Set: DB_Gen_Ed Program Outcomes
Created: 08/07/2014 7:52:47 am EDT
Last Modified: 08/11/2014 2:13:37 pm EDT

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



DB General Education Curriculu

Assessment Schedule

Mapping Matrix

Assessment Schedule

[Print View] [PDF]

Alignment Set: DB_Gen_Ed Program Outcomes
Created: 08/16/2014 8:15:15 am EDT
Last Modified: 08/21/2014 11:15:56 am EDT

Embry-Riddle Aeronautical University » Academic Division » Daytona Beach Campus » DB_College of Arts and Sciences » DB_General Education



DB_General Education program

Assessment Schedule

Courses and Activities Mapped to DB_Gen_Ed Program Outcomes

Outcome										
PO_01	PO_02	PO_03	PO_04	PO_05	PO_06	PO_07	PO_08	PO_09	PO_10	PO_11
Apply knowledge of college-level mathematics for defining and solving problems.	Construct effective written documents for technical and non-technical audiences.	Communicate ideas in non-written form, such as through oral presentations and visual media.	Conduct and report research accurately and in accordance with professional standards.	Recognize the importance of ethical responsibility both professionally and socially.	Identify some of the important results of scientific inquiry in the physical and natural sciences, and use scientific information in critical thinking and decision-making.	Use technology to organize and manipulate information to communicate ideas and concepts.	Apply economic principles to identify, formulate, and solve problems.	Demonstrate an awareness and understanding of the values communicated through the humanities.	Describe some of the historical and contemporary issues that affect societies.	Recognize the complexity of human experience from a variety of perspectives, for example, cultural, aesthetic, social, technological, scientific, psychological, philosophical, and historical.

DB General Education Assessment Cycles										
2014-15 Assessment Cycle	✓	✓	✓		✓	✓		✓		✓
2015-16 Assessment Cycle				✓			✓		✓	✓
2016-17 Assessment Cycle	✓	✓	✓	✓						
2017-18 Assessment Cycle					✓	✓	✓	✓		
2018-19 Assessment Cycle								✓	✓	✓
2019-20 Assessment Cycle										

Legend: ✓ = Aligned

Show Outcome Descriptions Show Course/Activity Detail

Additional Information (Optional)

File Attachments:

- [DB Gen Ed Program Outcomes Curriculum Map.xlsx](#)
- [DB Gen Ed Program Outcomes Map.xls](#)

2014-2015 Assessment Cycle

Contact Information

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Assessment Plan

Outcomes and Measures

DB_Gen_Ed Program Outcomes

Outcome

PO_01

Apply knowledge of college-level mathematics for defining and solving problems.

- ▼ **Measure:** AT 406 Faculty will monitor and evaluate students during a "live" simulated non-radar scenario
Program level; Indirect - Other

Details/Description: "Over-the-shoulder" evaluations. Faculty will monitor and evaluate students during a "live" simulated non-radar scenario that requires the fast and accurate calculation of aircraft speed, and time to fly and other math problems.

Criterion for Success: Review of graded evaluation from faculty grade sheets for the "over-the-shoulder" evaluations. An outcome will be considered "attained" if 75% of the students correctly answer 80% of the math questions and/or solve the math problems .

Timeframe of Data Collection: Fall 2014 - Spring 2015

Key/Responsible Personnel: Randall L. Triplett, Course Monitor

Supporting Attachments:

 [AT406 Gen Ed Assessment Plan 2014-15.docx](#) (Word Document (Open XML))

- ▼ **Measure:** AT 406 Portfolio Review to assess students' knowledge of formulas and techniques used to separate aircraft
Program level; Direct - Portfolio

Details/Description: Daytona Beach students enroll in AT 406 after successfully completing all other AT courses as they are prerequisites for AT 406. During fall 2014, 25 are students enrolled in AT 406 courses.

Because AT 406 is restricted to ten students per class and there are 3 sections scheduled for fall, and no more than three sections again in 2015 we will use all (100%) students in assessing the Gen Ed learning outcomes.

A student portfolio review of written questions predetermined by faculty assigned to deliver AT 406. These predetermined questions will be used to measure knowledge of college-level mathematics formulas and techniques used to, separate aircraft and maintain situational awareness. The review will include questions from homework assignments, simulated air traffic control problems, and written exams.

Criterion for Success: An outcome will be considered "attained" if 75% of the students correctly answer 80% of the math questions and/or solve the math problems . Failure to reach this threshold should prompt the course instructor(s) /faculty mentor(s) to communicate with one another regarding how to improve performance on the respective criterion

Timeframe of Data Collection: Fall 2014 - Spring 2015

Key/Responsible Personnel: Randall L. Triplett, Course Monitor

▼ **Measure:** Student Exams in MA 335 (Practice)

Program level; Direct - Exam

Details/Description: Faculty members teaching MA 345 will administer an exam in December to at least 50% of the students in the course. Five questions on this exam have been identified as particularly relevant to the general education learning outcomes. Similar questions to these five have been asked this past spring. The data from this preserved so we have a basis to compare the success rates on these particular questions.

Also, five custom questions will be appended to the end of term student evaluation survey to gauge student opinion of their own relevant mathematical knowledge of these topics. These survey questions were also distributed this past spring so we again have a basis for comparison purposes.

Criterion for Success: Based on our previous experience, we will consider it a success if at least 65% of students can correctly answer the five exam questions and at least 65% of students show that they are satisfied in the five custom survey questions.

Timeframe of Data Collection: Spring/Fall 2014/15

Key/Responsible Personnel: Carol Jacobs

Supporting Attachments:



[GenEdAssessmentPlanMA345.pdf](#) (Adobe Acrobat Document)

PO_02

Construct effective written documents for technical and non-technical audiences.

▼ **Measure:** Student Survey, AS 405 Aviation Law

Program level; Indirect - Survey

Details/Description: administered at the end of the term. Developed by representative faculty members who teach Aviation Law, the survey will be designed to discern if students perceive that course presentations, discussions, and assignments have helped them to construct effective written documents for technical and non-technical audiences as related to court proceedings.

Criterion for Success: Eighty percent of surveyed students will report that the course presentations, discussions, and assignments have increased their ability to construct effective written documents for technical and non-technical audiences.

Timeframe of Data Collection: 21014-15 academic year

Key/Responsible Personnel: Stephen Dedmon, course monitor

▼ **Measure:** Written Assignment in AS 405 Aviation Law

Program level; Direct - Student Artifact

Details/Description: AS 405 will have students write a paper dealing with their experience in having attended a civil or criminal court proceeding in a court of competent jurisdiction of their choosing. Using a rubric, a random selection of these essays will be evaluated by a faculty committee.

Criterion for Success: Eighty percent will meet or exceed expectations.

Timeframe of Data Collection: 2014-15 academic year

Key/Responsible Personnel: Stephen Dedmon, course monitor

Supporting Attachments:

PO_03

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

▼ **Measure:** Student Projects EGR 101 (Introduce)
Program level; Direct - Portfolio

Details/Description: Require two project reports from each AE section. Invite CIV, ECCSE, and ME to submit 1 project report. A minimum of 3 EGR 101 faculty will review the projects with respect to the attached rubric.

Criterion for Success: At least 3. 80% Satisfactory or higher is acceptable success criteria.

Timeframe of Data Collection: Spring/Fall 2014-5

Key/Responsible Personnel: James Pembridge

Supporting Attachments:

 EGR 101 fall 2014 Gen Ed assessment plan.pdf (Adobe Acrobat Document)

PO_05

Recognize the importance of ethical responsibility both professionally and socially.

▼ **Measure:** AT 406 Survey
Other level; Indirect - Survey

Details/Description: The AT 406 Course Monitor, in conjunction with faculty who teach the course will design a survey to be included in the student end-of-course evaluation. The survey must be designed to discern if students perceive that the faculty mentoring, the open discussions, and the requirement to work in teams has offered sufficient opportunities to learn about, and value the importance of ethical responsibility both professionally and socially Sample questions include:

- I feel that after completing this course I am better able to value the importance of ethical responsibility both on the job and off
- I feel that after completing this course I have a strong understanding that my behavior both professionally and socially will have a direct impact on my career.

A Likert scale will be used with the options: strongly disagree, disagree, neutral, agree, and strongly agree.

Criterion for Success: For each criterion, a compilation of results will be made from all student submitted course evaluations. An outcome will be considered "attained" via indirect assessment if 75% of the students respond as agree or strongly agree. Failure to reach this threshold should prompt the course instructor(s) /faculty mentor(s) to communicate with one another regarding how to improve performance on the respective criterion.

Timeframe of Data Collection: Fall 2014 - Spring 2015

Key/Responsible Personnel: Randall L. Triplett, Course Monitor

▼ **Measure:** Ethical Environment Questionnaire BA 210
Program level; Indirect - Survey

Details/Description: At the end of the term, students will complete a ten-question Ethical Environment Questionnaire

Criterion for Success: 90% of students will strongly agree or agree.

Timeframe of Data Collection: 2014-15 academic year

Key/Responsible Personnel: John Ledgerwood, COB

Supporting Attachments:

▼ **Measure:** Student Survey EGR 101 (Introduction)
Program level; Indirect - Survey

Details/Description: Survey at least 2/3 of the AE sections.

Criterion for Success: Survey uses 4-pt Likert scale. At least 70% select Strongly Agree or Agree for each question.

Timeframe of Data Collection: Spring/Fall 2014/15

Key/Responsible Personnel: James Pembridge

Supporting Attachments:

 [EGR 101 fall 2014 Gen Ed assessment plan.pdf](#) (Adobe Acrobat Document)

PO_06

Identify some of the important results of scientific inquiry in the physical and natural sciences, and use scientific information in critical thinking and decision-making.

▼ **Measure:** Student Exam MA 345 (Practice)
Program level; Direct - Exam

Details/Description: Faculty members teaching MA 345 will administer an exam in December to at least 50% of the students in the course. Five questions on this exam have been identified as particularly relevant to the general education learning outcomes. Similar questions to these five have been asked this past spring. The data from this preserved so we have a basis to compare the success rates on these particular questions.

Also, five custom questions will be appended to the end of term student evaluation survey to gauge student opinion of their own relevant mathematical knowledge of these topics. These survey questions were also distributed this past spring so we again have a basis for comparison purposes.

Criterion for Success: At least 65% of students can correctly answer the five exam questions.

Timeframe of Data Collection: Spring/Fall 2014-15

Key/Responsible Personnel: Carol Jacobs

Supporting Attachments:

 [GenEdAssessmentPlanMA345.pdf](#) (Adobe Acrobat Document)

PO_08

Apply economic principles to identify, formulate, and solve problems.

▼ **Measure:** Pre-Post Test in BA 210
Program level; Direct - Exam

Details/Description: A test containing 25 multiple choice questions will be administered at the start and end of the course.

Criterion for Success: The class average will show a 20% increase on the post-test.

Timeframe of Data Collection: 2014-15 academic year

Key/Responsible Personnel: John Ledgerwood, COB

Supporting Attachments:

 [BA210GenEdAssessment Plan 2014-15.doc](#) (Microsoft Word)

PO_10

Describe some of the historical and contemporary issues that

▼ **Measure:** Essay Assignment, AS 405 Aviation Law
Program level; Direct - Student Artifact

affect
societies.

Details/Description: AS 405 faculty and portfolio readers will develop a rubric by which the readers will examine a random sampling of student work to discern if students demonstrated their understanding of the United States Constitutional issues addressed by the hypothetical question.

Criterion for Success: Eighty percent of selected student portfolios will contain at least one example of a Constitutional right, signaling the author's recognition of the constitutional issue(s) addressed by the assignment.

Timeframe of Data Collection: 2014-15 academic year

Key/Responsible Personnel: Stephen Dedmon, course monitor

Supporting Attachments:

 [GEN ED ASS AS 405.docx](#) (Word Document (Open XML))

 **Improvement Action Plan**

 **Status Report**

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

 **Attachments**