ELB 5

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| **ELB005** | **Course Description:** Human Factors in Aviation prepares students for challenges in mainstream university classes. It is designed to give students an introduction to Human Factors in Aviation as well as allows students to practice their listening, speaking, reading, and writing skills. Students will learn about different majors in HF offered by ERAU as well as will have a chance to explore jobs that require a degree in HF. The topics covered in this course are History of Human Factors, Human Factors in Engineering: Crew Station Design, Aeromedical Factors in Aviation, Hofstede Cross-Cultural Dimensions, CRM, and many more. Students will have an opportunity to participate in ERAU lectures on Human Factors as well as go on a tour of the Human Factors and Aerospace Physiology Labs. This class meets 4 times a week for 50 minutes. In summer, this class meets 4 times a week, twice for 60 minutes and twice for 75 minutes. | | |
| **Course Goal:** Students completing ELB005 should be able to use listening, speaking, reading, and writing skills in Human Factors topics. | | |
|  | **Course Objectives**  *Through course content and activities, students will be taught how to:* | **Student Learning Outcomes**  **(SLOs)**  *Based on the stated general objectives, students will be able to:* | **Assessing SLOs**  *These SLOs are observed and measured primarily through:* |
|  | *Comprehend spoken details and concepts in the area of Human Factors in Aviation at a high-intermediate to advanced level and respond to/explain them in a written format.* | 1a. Take notes on various topics related to Human Factors in Aviation at a high-intermediate to advanced level from the instructor, guest speakers, university lectures, and tours.  1b. While taking notes, identify key information and supporting details from high-intermediate/advanced-level videos, the instructor, and guest speakers.  1c. Utilize information obtained from a guest speaker on Human Factors in Engineering to design the crew station (cockpit) of the future as a member of a small group.  1d. Utilize information obtained from a guest speaker on Hofstede Cross-Cultural Dimensions to design the most effective crew.  1e. In writing, explain the events leading to, and the causes, of aircraft accidents based on information from brief videos.  1f. Utilize the information in their notes to pass content-based quizzes on the course topics.  1g. Employ correct spelling of key terms in Human Factors in Aviation.  1h. Employ correct grammar, capitalization, and punctuation appropriate to a high-intermediate to advanced level student. | Student presentations  Quizzes/Exams  Graded classwork  Graded homework |
|  | *Utilize speaking skills to practice presenting information on various human factors-related topics in aviation at an advanced level.* | 2a. Utilize information obtained through research to orally synthesize and/or respond to information from their notes and from online articles and videos.  2b. Demonstrate an ability to use high-intermediate to advanced-level language and discussion techniques in the context of classroom discussions.  2c. Employ an electronic visual aid such as PowerPoint to give an organized presentation explaining the events and cause of an aircraft accident with a focus on Human Factors.  2d. Conduct research and present a 30-minute lecture (including an activity) on a current topic in Human Factors as a member of a small group.  2e. Create and role play a dialogue on the “*Dirty Dozen”*.  2f. Create a webinar on “How to Survive an Airplane Crash”. | Student presentations  Quizzes/Exams  Graded classwork  Graded homework |
|  | *Comprehend written details and concepts in the area of human factors in aviation at an advanced level.* | 3a. synthesize information from written sources to complete coursework.  3b. Apply knowledge obtained from written sources on stress to complete a test to determine their stress level.  3c. Apply knowledge obtained from written sources on crew resource management to  3d. Write a one-page report synthesizing and/or responding to information from their notes and from online articles and videos.  3e. Employ paraphrased information obtained through research in written formats. | Student presentations  Quizzes/Exams  Graded classwork  Graded homework |

**Course Description:** A description of the goals, methods, and timelines for a course.

**Course Goal:** The overall intended outcome or target for the course. The goal guides the development of meaningful course objectives and informs students and teachers of the purpose of the course.

**Course Objective: A** specific curricular element taught through content and activities. The course objectives guide instruction and lesson planning in order to provide a learning experience for all students, and, in aggregate, address the course goals.

**Student Learning Outcome:** A description of what the student will know or be able to do with the language as a result of the course of instruction. A student learning outcome is written in terms of observable and measurable language skills. Along with course objectives, student learning outcomes provide the foundation of assessment by implying what will be assessed and appropriate methods of assessment.