



Introduction to Aeronautical Science

WW-ASCI 202

EagleVision

Course Syllabus

Worldwide 2025-01 January

## Course Information

Term Dates: Jan 13, 2025 - Mar 16, 2025

Credit Hours: 3

Meetings: 04:00 AM - 07:20 AM Wednesday Time Zone:

Eastern Location: \*EagleVision Classroom

Delivery Method: EagleVision Classroom/Blended

## Instructor Information

Name: Joseph Mangano

Email: [manganj2@erau.edu](mailto:manganj2@erau.edu)

Office Hours: By appointment only

## Required Course Materials

**Title: Publication Manual of the American Psychological Association - (APA)**

ISBN: 978-1433832161 Paperback

ISBN2: 978-1433832185 eBook

Authors: American Psychological Association

Publisher: American Psychological Association

Publication Date: 2019

Edition: 7th

Format: Manual

### **Notes**

Other required materials provided the course. Students will be creating narrated presentations so computers, laptops, and/or smartphones with audio recording capabilities are required.

## Catalog Course Description

An introductory course in aeronautical sciences that provides students an orientation in aviation topics appropriate to Aeronautical Science degree programs. Subjects include: the aviation profession, the science of flight, safety, security and human factors; aviation resources; the aviation environment; and meteorology.

Prerequisite(s): None

## Course Goals

To provide a foundation of essential and specialized knowledge in aviation and aerospace systems appropriate to Aeronautical Science degrees.

## Student Learning Outcomes

1. Explain the qualifications, attributes, ethics and responsibilities of aviation professionals.
2. Explain the aerodynamic considerations and performance capabilities of aircraft.
3. Describe aircraft systems to identify aviation reliability and maintainability concerns.
4. Explain the role of Safety Management System (SMS) and the National Transportation Safety Board (NTSB) in accident prevention.
5. Determine the responsibilities of stakeholders in developing and maintaining a positive human factors climate.
6. Explain the framework of National and International Laws and Regulations that regulate the aviation industry.
7. Explain airport design, development and operations.
8. Explain the basic structure of the National Airspace System (NAS).
9. Explain aviation weather hazards.
10. Explain current aviation security concerns and mitigation strategies.

## Grading

Scale	Grade
90 - 100	A (Superior)
80 - 89	B (Above Average)
70 - 79	C (Average)
60 - 69	D (Below Average)
Below 60	F (Failure)

## Evaluation Items & Weights

### Percentage

Writing Assignments 35%  
Presentation Assignments 35%  
Blog Discussions 30%  
**Total 100%**

## Disability and Special Needs

### Disability Services Support

ERAU-WW is committed to the success of all students. It is a University policy to provide reasonable accommodations to students with disabilities, who qualify for services. If you would like to request accommodations due to a physical, mental or learning disability, please visit the [Student Accessibility Services page](#) or contact our office at 386-226-7334 or via email at [wwsas@erau.edu](mailto:wwsas@erau.edu). ALL DISCUSSIONS ARE CONFIDENTIAL.

### Mental Well-Being Statement

ERAU recognizes that life stressors, such as depression, anxiety, alcohol/drug problems, relationship problems and various other experiences can hinder the learning process. All ERAU students have access to free, confidential counseling through TELUS Health. You can access a counselor 24/7 via phone, computer or chat in the Student Support app. Please download the app or add the link to your computer and consider using this valuable resource during your educational journey at ERAU. More information on TELUS can be found on the [WW Dean of Students ERNIE page](#).

## Additional Information

**Please note that you may be able to see the course content up to 4 (four) days prior to the official term start date. However, you will not be able to actively participate in the course (e.g., submit assignments, participate in discussions, receive credit for an activity, etc.) until 12am on the official day of term start.**

### APA Format

It is required for all submitted papers (research, case studies, essays, etc.) that students follow the **most current** APA format according to the [American Psychological Association Publication Manual](#).

For all graded activities *other than papers* that require APA elements, students must include APA-formatted in-text citations and associated reference sources according to the [APA Manual](#).

For more information regarding the the *American Psychological Association Publication Manual* formatting, reference the the [APA website](#).

### Library

Embry-Riddle Aeronautical University has one of the most complete library collections of aviation-related resources in the world. The Hunt Library is the library for all Worldwide students regardless of location. For help finding resources for your assignment, project, or topic, or to learn more about the library services available to you, please contact our librarians using the following information:

- [Hunt Library Worldwide: Information, Services, Help](#)
  - [Library Basic Training](#)
  - [Ask-a-Librarian](#)
  - [Library Hours](#)
- Contact Information
  - Email: [library@erau.edu](mailto:library@erau.edu)

### TITLE IX

The Title IX Office oversees compliance of Title IX Sexual Harassment in accordance with Federal Regulations, as well as incidents falling under the University Sexual Misconduct policy. Policy violations can include sex discrimination, sexual harassment, or sexual violence, such as rape, sexual assault, relationship / dating violence, sexual misconduct, and stalking.

Anyone **may** report suspected or known violations to the Title IX Office and may be able to receive supportive measures. Please see the Title IX website for additional information.

### **WW Title IX Office**

Email: [wwtitle9@erau.edu](mailto:wwtitle9@erau.edu)

Website: <https://worldwide.erau.edu/administration/title-ix-compliance>

[Online Complaint Form](#)

## Course Policies

1. **Plagiarism:** Presenting as one's own the ideas, words, or products of another. Plagiarism includes use of any source to complete academic assignments without proper acknowledgment of the source. All papers submitted for grading in this course will be submitted to Turnitin where the text of the paper is compared against information contained in the Turnitin database. Papers submitted will be included in the Turnitin database and become the source documents for the purpose of detecting plagiarism.

2. **Cheating:** A broad term that includes the following:

- Giving or receiving help from unauthorized persons or materials during examinations.
- The unauthorized communication of examination questions prior to, during, or following administration of the examination.
- Collaboration on examinations or assignments expected to be individual work.
- Fraud and deceit, that include knowingly furnishing false or misleading information or failing to furnish appropriate information when requested, such as when applying for admission to the University.

3. The most current **APA Edition** format is the ERAU Worldwide standard for all research projects

4. Course-specific Policies:

- **Blended Learning Policy:** This course is offered in blended format; 70% of the required course will be conducted in-class and 30% will take place online in Canvas. Class meetings will be composed of lectures, audio-visual presentations, discussions, exercises (also in small groups), student presentations and other course activities. Online activities will include discussion with classmates, posting of your work, reviewing classmates' work, and feedback from the instructor on your work. During the first face-to-face session, we will thoroughly review the online Blended Course Activities.

### **EVH-EVC Hybrid Class Attendance Policy:**

- Students enrolled in the campus classroom section **MUST** attend class at the campus due to financial aid, legal and regulatory requirements.
- Students enrolled in the campus classroom section **MAY NOT ATTEND** the Eaglevision session from home or watch the playback session in lieu of attending class in the campus classroom. **This is counted as an absence from the session and may have negative repercussions for the student and the university.**
- Students enrolled in the EV Home section may attend sessions from home or anywhere that meets EagleVision Home technology requirements per the Eaglevision Home Compliance Agreement.
- There are NO exceptions to the above policies.

### **Class Attendance Policy**

- On-time class attendance is required.
- Class absences or tardiness are neither excused nor unexcused; they are merely absences or tardiness.
- If you are not seated by the class start time ready to begin the lecture, you are late.
- Attendance of less than 50 minutes of a 60 minute class constitutes an absence.
- Every 2 late arrivals or early departures will count as an absence.
- Absences must be made up. The instructor will determine what is needed to make up the absence.
- Extended consecutive absences due to prolonged illness, work, or university

authorized or required travel off- campus are dealt with on an individual basis. Be sure to contact the instructor immediately if you experience such a situation.

### **Late Work Policy**

- All coursework is expected to be completed on time and should be submitted before 11:59 PM ET on the date indicated in the Course Schedule below. Unless otherwise specified in this document, late work will be downgraded 10% for each day it is past due, up to 5 days beyond the deadline. After that, a permanent score of zero (0) will be entered in the Canvas Grades area.

## EagleVision Web-Conferencing and Technology

EagleVision courses utilize Zoom, web conferencing software that enables students and instructors to connect in real-time through the use of web cameras, microphones, file sharing, chat and more. Students are expected to participate using audio and/or video when requested by the instructor. Review the [Computer Requirements for Worldwide Courses](#) and run the [ERAU Computer Check](#) to verify your computer meets the technical specifications and system requirements prior to your first class.

Visit the [EagleVision](#) ERNIE page for details on using the application, to join a test meeting, and to confirm that your equipment meets the requirements.

***Students not in compliance with equipment requirements can be withdrawn at the second class meeting.***

It is in your best interest to become familiar with the application ahead of the first class, so you know how to interact with your instructor and classmates. Attend class in an area where there are no distractions (TV, kids, phones, etc.) to impede your learning, the instructor's teaching, or your classmates' attention.



# Course Schedule

## Module 1 Working in the Aviation Industry

- 1.1 Discussion: Introductions
- 1.2 Readings and Resources
- 1.3 Presentation Assignment: Build a Job Description
- 1.4 Blog Discussion: What Does Ethics in the Aviation Profession Mean to You?

## Module 2 Aerodynamics and the Science of Flight

- 2.1 Readings and Resources
- 2.2 Parts of a Plane
- 2.3 Writing Assignment: Aircraft Design and Performance

## Module 3 Aircraft Systems and the Role of Aviation Maintenance

- 3.1 Readings and Resources
- 3.2 Presentation Assignment: Maintenance and Reliability

## Module 4 Aviation Safety and Security: Understanding the Challenges

- 4.1 Readings and Resources
- 4.2 Eight Signs of Terrorism
- 4.3 Blog Discussion: Aviation Security
- 4.4 Writing Assignment: Improving Aviation Safety

## Module 5 Human Factors and Team Resource Management

- 5.1 Readings and Resources
- 5.2 The Five Hazardous Attitudes
- 5.3 Presentation Assignment: Building a Positive Human Factors Culture by Considering Team Performance in Aviation

## Module 6 Aviation Laws and Regulations

- 6.1 Readings and Resources
- 6.2 Writing Assignment: Aviation Legislation: The Path Ahead

## Module 7 Airport Design, Development, and the Environment

- 7.1 Readings and Resources
- 7.2 Presentation Assignment: Airport Design and Construction

## Module 8 The Components of the National Airspace System

8.1 Readings and Resources

8.2 Writing Assignment: Airspace Capacity Challenges

## Module 9 Weather and Aviation Operations: The Risk and Challenges

9.1 Readings and Resources

9.2 Blog Discussion: Weather Hazards

9.3 Presentation Assignment: Weather Policy and Procedures

## Summary

The below summary is provided for reference only. It is not considered part of the official Syllabus and is subject to change as assignments are published and unpublished to meet course needs. The links below are provided for quick access to graded activities in Canvas.

Due Date	Name (link)	Event type	Points
	<a href="#">1.1 Discussion: Introductions</a>	Discussion	0
	<a href="#">Online Office</a>	Discussion	0
	<a href="#">Student Lounge</a>	Discussion	0
1/19/25	<a href="#">1.3 Presentation Assignment: Build a Job Description</a>	Assignment	100
1/19/25	<a href="#">1.4 Blog Discussion: What Does Ethics in the Aviation Profession Mean to You?</a>	Discussion	100
1/26/25	<a href="#">2.3 Writing Assignment: Aircraft Design and Performance (PLG1)</a>	Assignment	100
2/2/25	<a href="#">3.2 Presentation Assignment: Maintenance and Reliability</a>	Assignment	100

<b>Due Date</b>	<b>Name (link)</b>	<b>Event type</b>	<b>Points</b>
2/9/25	<a href="#">4.3 Blog Discussion: Aviation Security</a>	Discussion	100
2/9/25	<a href="#">4.4 Writing Assignment: Improving Aviation Safety (PLG1)</a>	Assignment	100
2/16/25	<a href="#">5.3 Presentation Assignment: Building a Positive Human Factors Culture by Considering Team Performance in Aviation</a>	Assignment	100
2/23/25	<a href="#">6.2 Writing Assignment: Aviation Legislation: The Path Ahead (PLG1)</a>	Assignment	100
3/2/25	<a href="#">7.2 Presentation Assignment: Airport Design and Construction</a>	Assignment	100
3/9/25	<a href="#">8.2 Writing Assignment: Airspace Capacity Challenges (PLG1)</a>	Assignment	100
3/16/25	<a href="#">9.2 Blog Discussion: Weather Hazards</a>	Discussion	100
3/16/25	<a href="#">9.3 Presentation Assignment: Weather Policy and Procedures</a>	Assignment	100

© Embry-Riddle Aeronautical University

Last updated: MM/DD/YYYY

By: