

Course discipline/number/title: AVIA 2450: Aviation Human Factors**A. CATALOG DESCRIPTION****1. Credits:** 3**2. Hours/Week:** 3**3. Prerequisites (Course discipline/number):** AVIA 1200 and AVIA 1210**4. Other requirements:** Requires completion of prerequisite program courses with a C or better and endorsement.**5. MnTC Goals (if any):** NA

B. COURSE DESCRIPTION: This course is a study of various techniques designed to enhance management and leadership methods. Emphasizes decision-making and judgment skills as well as methods to improve effective communication and skills to develop a productive work environment for flight crew and other airline personnel. Requires completion of prerequisite program courses with a C or better and endorsement.

C. DATE LAST REVISED (Month, year): February, 2025

D. OUTLINE OF MAJOR CONTENT AREAS:

1. Human factors defined
2. Basic human anatomy
3. The atmosphere
4. Altitude physiology
5. Situational awareness/orientation
6. Stress - self-imposed and environmental
7. Sleep, jet lag, fatigue
8. Crew Resource Management (CRM)
9. Human factors of automation

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Describe human factors in aviation.
2. Understand the basics for the human body and how it works.
3. Understand the earth's atmosphere and the effects has on the human body and mind as you increase altitude.
4. Describe situational awareness and different ways to overcome being disorientated in flight.
5. Describe the different stressors in life and on the job as well as how sleep and fatigue can affect the human mood and work performance.
6. Understand the concept of CRM and be able to demonstrate through scenario-based training the ability to overcome unfavorable scenarios that may be encountered in the flight deck through Crew Resource Management (CRW).
7. Understand the effects of automation on the human being.

F. LEARNING OUTCOMES (MNTC): NA**G. METHODS FOR EVALUATION OF STUDENT LEARNING:** Methods may include but are not limited to:

1. Quizzes
2. Exams

H. RCTC CORE OUTCOME(S). This course contributes to meeting the following RCTC Core Outcome(s):
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.

I. SPECIAL INFORMATION (if any): None