ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

COMMON COURSE OUTLINE

Course discipline/number/title: AVIA 2100: Air Navigation

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: A study of fundamental air navigation principles and how they are applied to flight, pilotage and dead reckoning, charts and conformal projects. Includes a study of the nation's air traffic control system, focusing on basic air traffic control procedures and regulations, Federal Aviation Administration control facilities, Flight Service Station services, radio communication, navigation principles, safety, and new developments.

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

D. OUTLINE OF MAJOR CONTENT AREAS:
1. History of Air Navigation
2. Methods of Navigation
3. Sectional, High, Low, Instrument Flight Rules (IFR) charts
4. Lost Procedures
5. Air Traffic Control
6. Flight Services

E. LEARNING OUTCOMES (GENERAL): The student will be able to:
1. Understand the history of aviation and how air navigation evolved to what it is today.
2. Describe the different methods of navigation and be able to demonstrate how to use each one through charts or other tools provided.
3. Be able to correlate the many methods of navigation and use them in the event they were to become lost in flight and how they would handle each scenario.
4. Understand how the Air Traffic Control (ATC) system works and be able to demonstrate how to use the ATC system.
5. Be able to describe the different functions of flight service and different scenarios they would be helpful to a pilot in planning or flight.

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