Assessment Plan:
Department of Aviation
University of North Dakota

John D. Odegard School of Aerospace Sciences

2025-2026

1 CONTENTS

Aviation Department Assessment Plan

Assessment Plan – Department of Aviation

2 OVERVIEW

This assessment plan is written and implemented by the Faculty of the Department of Aviation. Components in this plan are in place to satisfy the requirements of the Aviation Accreditation Board International (AABI), the University of North Dakota, and to assure the continued success of the graduates of the aviation program.

3 MISSION

3.1 UNIVERSITY OF NORTH DAKOTA MISSION STATEMENT

Our mission is to provide transformative learning, discovery and community engagement opportunities for developing tomorrow's leaders.

3.2 JOHN D. ODEGARD SCHOOL OF AEROSPACE SCIENCES MISSION STATEMENT

Working together, we will be leaders in creating, preserving, and delivering the highest quality education, research, and services in aerospace and related sciences for our university, our state, and the worldwide aerospace community.

3.3 DEPARTMENT OF AVIATION MISSION STATEMENT

Working together, we will deliver the highest quality education, research, and service in aviation and related disciplines to our students, our college, and the worldwide aerospace community.

3.4 PROGRAM GOALS

- **Commercial Aviation Fixed Wing**

    o Develop foundational understanding for students to efficiently and safely operate fixed-wing aircraft within the national airspace system.

    o Promote understanding of the diverse operating environments of private, commercial, and military operations in both single-pilot and crewed operations.

    o Develop systems, procedural, and regulatory knowledge necessary for operating fixed-wing single-pilot and/or crewed pilot operations in a global aviation environment.

- **Commercial Aviation Helicopter**

    o Develop foundational understanding for students to successfully operate rotorcraft within the national airspace system.

    o Promote understanding of the diverse operating environments of private, commercial, and military operations.

- o Develop systems, procedural, and regulatory knowledge necessary for operating helicopters in a global aviation environment.

- **Air Traffic Management**

  - o Prepare graduates with the foundational knowledge, skills, and professionalism needed for careers in air traffic management.

  - o Develop graduates who can effectively assess air traffic situations and support safe and efficient traffic operations.

  - o Foster ethical responsibility, adaptability, and ongoing professional development in an evolving aviation environment.

- **Unmanned Aircraft Systems**

  - o Prepare graduates with foundational knowledge, technical skills, and professionalism for careers in unmanned and autonomous aircraft systems.

  - o Develop graduates who can analyze operational situations and support safe and effective UAS operations.

  - o Foster responsibility, adaptability, and continuous professional development in the evolving UAS industry.

- **Aviation Safety and Operations**

  - o Prepare graduates with foundational knowledge, analytical skills, and professionalism for careers in aviation safety and operations.

  - o Develop graduates who can evaluate operational environments and support safe and effective aviation operations.

  - o Foster ethical responsibility, adaptability, and continuous professional development within the aviation industry.

- **Aviation Studies**

  - o Prepare graduates with foundational knowledge, analytical skills, and professionalism for careers in aviation and aerospace.

  - o Develop graduates who can critically evaluate aviation systems, technologies, and operational environments.

o Foster ethical responsibility, adaptability, and lifelong learning in the aviation industry.

3.5 PROGRAM MISSION STATEMENTS

Commercial Aviation Fixed Wing Program Mission

The mission of the Department of Aviation's undergraduate program in Commercial Aviation Fixed Wing is to produce professional aviators with superior aviation technical abilities and interpersonal skills. Graduates will be leaders, skilled with technology, inclusive of diverse perspectives, and responsive to changes in industry and its environment.

Commercial Aviation Helicopter Program Mission

The mission of the Department of Aviation's undergraduate program in Commercial Aviation Helicopter is to produce professional aviators with superior aviation technical abilities and interpersonal skills. Graduates will be leaders, skilled with technology, inclusive of diverse perspectives, and responsive to changes in industry and its environment.

Air Traffic Management Program Mission and Goals

The mission of the Department of Aviation's Undergraduate Program in Air Traffic Management is to provide educational opportunities for students that will develop individuals who possess excellent aviation technical abilities, superior communication and teamwork skills, are adaptable to change, seek life-long learning, can effectively utilize technology and have an appreciation of other cultures in order to ensure successful contributions in the global and dynamic aviation industry. This program will prepare graduates in seeking employment as air traffic controllers.

Unmanned Aircraft Systems

The primary mission of the UAS Operations program is to serve the Department of Aviation, the John D. Odegard School of Aerospace Sciences, the University of North Dakota, the North Dakota State University System, and the State of North Dakota. The secondary mission of the UAS program is to propose and engage in UAS and Autonomous related research, education, and training endeavors to enhance opportunities for students and faculty, and to ensure a perpetual state-of-the-art UAS Operations program.

Aviation Management

The Aviation Management degree provides a comprehensive curriculum to students seeking a career in the field of aviation business and administration. Students will develop a strong background in aviation and business practices, while having sufficient flexibility in course

selection to focus on a particular area of the industry such as flight operations, air transportation, dispatch, or airport management.

Aviation Safety and Operations

The Aviation Safety and Operations program offers students a comprehensive curriculum of aviation knowledge and specialized technical and procedural knowledge. Graduates of this program will possess the skills necessary to join the next generation of aviation safety experts.

Aviation Studies

The Aviation Studies Program prepares students for a successful career in the aviation industry. Students will benefit from a strong liberal arts foundation, combined with a robust aviation curriculum. Graduates of this program will have the skills necessary to think critically about the world, and solve complex problems facing the aviation industry.

Aviation M.S.

The mission of the Aviation Department M.S. program is to provide quality educational experiences to students that promote critical thinking and foster an intellectual environment conducive to exemplary research, scholarship and creativity among graduate students and faculty to provide problem-solving professionals to aviation industry employers.

4   STUDENT LEARNING OUTCOMES (SLOS)

Student Learning Outcomes (SLO) are established by AABI and the UND Department to identify what students will learn within their respective program of study. AABI General and Core SLOs are set by the AABI Board of Trustees, while the Program Student Learning Outcomes (PSLO) are set by UND for each degree program.

4.1   AABI STUDENT LEARNING OUTCOMES

a. Apply mathematics, science, and applied sciences to aviation-related disciplines.
b. Analyze and interpret data.
c. Work effectively in teams.
d. Make professional and ethical decisions.
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines.
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines.
g. Explain the value of and need for life-long learning in aviation careers.

h. Use the techniques, skills, and modern technology necessary for professional practice in aviation.
i. Identify and solve problems.
j. Apply knowledge of sustainability to aviation issues.
k. Describe the professional attributes, requirements or certifications, and planning applicable to aviation careers.
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.
m. Evaluate aviation safety and the impact of human factors on safety.
n. Discuss the impact on aviation operations of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System.
p. Discuss the impact of meteorology and environmental issues on aviation operations.

4.2 UND Essential Studies (Goals) Outcomes

The following matrix demonstrates how the AABI Outcomes relate to UND's Essential Studies Goals:

AABI Outcome\Essential Studies Goals	Critical Inquiry and Analysis	Oral Communication	Information Literacy	Intercultural Knowledge & Skills	Written Communication	Quantitative Reasoning
AABI Outcomes						
a. Apply mathematics, science, and applied sciences to aviation-related disciplines	■		■			■
b. Analyze and interpret data	■		■			■
c. Work effectively on teams				■		
d. Make professional and ethical decisions	■			■		
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines					■	
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines		■				
g. Explain the value of and need for life-long learning in aviation careers	■		■			
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;	■					■
i. Identify and solve problems	■		■			■
j. Apply knowledge of sustainability to aviation issues.	■		■	■		■
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;		■	■	■		
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.	■		■			■

Learning Goal						
m. Evaluate aviation safety and the impact of human factors on safety;	▓		▓			▓
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.				▓		
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;	▓		▓	▓		▓
p. Discuss the impact of meteorology and environmental issues on aviation operations.	▓		▓			▓

The Essential Studies Program assessment process uses "performance tasks" to collect consistent information from students across campus for most of the ES Program learning goals

Aviation Department Assessment Plan

4.3 AVIATION PROGRAM STUDENT LEARNING OUTCOMES (SLOS)

The following are aviation program Student Learning Outcomes that were developed by the faculty. They are subject to change by recommendation from the department assessment committee, and by official vote of the faculty. Each major within the aviation department has its own set of specific Student Learning Outcomes.

4.3.1 Commercial Aviation Fixed Wing Student Learning Outcomes
- Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating turbine aircraft in commercial operations
- Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments, applying principles in operational, problem-solving scenarios.
- Knowledge of the skills, techniques and procedures for managing aviation entities.
- Be able to demonstrate knowledge, skills, techniques, and procedures for safe operation of non-turbine aircraft in commercial operations.
- Be able to demonstrate instructional knowledge and skills in single-engine VFR and IFR flight.
- Knowledge of the skills necessary to be a professional and ethical leader.

4.3.2 Commercial Aviation Helicopter Student Learning Outcomes
- Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating turbine aircraft in commercial operations
- Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments, applying principles in operational, problem-solving scenarios.
- Knowledge of the skills, techniques and procedures for managing aviation entities.
- Be able to demonstrate knowledge, skills, techniques, and procedures for safe operation of non-turbine aircraft in commercial operations.
- Be able to demonstrate instructional knowledge and skills in single-engine VFR and IFR flight.
- Knowledge of the skills necessary to be a professional and ethical leader.

4.3.3 Air Traffic Management Student Learning Outcomes
- Knowledge of and the ability to apply tower operations.
- Knowledge of and the ability to apply radar operations.
- Knowledge of and the ability to apply non-radar operations.
- Knowledge of the emerging industry and the ability to recognize and engage in life-long learning.
- Knowledge and ability to apply enroute radar operations

4.3.4 Unmanned Aircraft System Student Learning Outcomes

- Be able to demonstrate crew performance and coordination in UAS and autonomous operational environments while applying problem solving skills and an in-depth understanding of the operational, regulatory and safety environment of the National Airspace System.
- Be able to demonstrate airmanship commensurate with applicable professional certification.
- Demonstrate an understanding of the science, technology, engineering, and mathematics principles specific to UAS.
- Develop a working knowledge of technologies and their application in UAS and autonomous operations.
- Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS and autonomous operations.
- Be familiar with computer technologies and processes associated with UAS and autonomous operations to include programming, data storage and security, and networking.

4.3.5 Aviation Management Student Learning Outcomes

- Demonstrate knowledge of management theories and practices as they apply to a global market.
- Demonstrate Knowledge of aviation management principles, including airport operations, airline management, air traffic control, aviation safety, aviation security, and aviation economics.
- Demonstrate knowledge of the regulatory environment governing aviation, including federal, state, and international regulations.

4.3.6 Aviation Safety and Operations Learning Outcomes

- Demonstrate knowledge of the skills, techniques, and procedures needed for safe and ethical operation within multiple aviation entities.
- Demonstrate knowledge of the impact human physiology and decision-making has on aviation safety.
- Students will understand and apply principles of hazardous material management, including identification, handling, disposal, and emergency response; ensuring safety and regulatory compliance.
- Demonstrate a wide breadth of knowledge in the area of safety and accident investigations.
- Demonstrate knowledge of the implications operational environments have on management and safety decision-making.

4.3.7 Aviation Studies Student Learning Outcomes

- Be able to demonstrate strong critical thinking and communication skills.
- Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating within multiple aviation entities.
- Be able to demonstrate a wide breath of knowledge in the area of aviation safety or business
- Knowledge of professionalism and ethics as it relates to the field of aviation.

4.3.8 Aviation M.S. and Ph.D. Student Learning Outcomes

- Students will apply skills learned in statistics and research methods courses to design a research question and conduct the appropriate research to address a problem.
- Students will apply the appropriate theories learned in their coursework to a research problem.
- Students will synthesize gathered information and use their analytical skills to develop possible solutions to a particular problem.
- Students will complete either a thesis or an independent study project which will demonstrate their desire and ability to increase knowledge and analyze information with a high-level of skill.
- Students will realize that being a professional requires a continual drive to develop and update an individual's skill set.
- Students will be able to write at an advanced level.
- Students will be able to effectively present their ideas using a variety of media.
- Students will be able to critically think, analyze and evaluate all types of information available in today's global society.

4.4 AVIATION OUTCOMES TO PROGRAM EDUCATIONAL GOALS

The following matrices show how the various outcomes relate to the overall objectives.

4.4.1 AABI General Outcomes in Relation to Commercial Fixed Wing Program Educational Goals

	Goal 1: Develop foundational understanding for students to efficiently and safely operate fixed-wing aircraft within the national airspace system.	**Goal 2:** Promote understanding of the diverse operating environments of private, commercial, and military operations in both single-pilot and crewed operations.	**Goal 3:** Develop systems, procedural, and regulatory knowledge necessary for operating fixed-wing single-pilot and/or crewed pilot operations in a global aviation environment.
AABI General Outcomes			
a. Apply mathematics, science, and applied sciences to aviation-related disciplines	�	▨	▓
b. Analyze and interpret data	▨		▨
c. Work effectively on teams		▨	▨
d. Make professional and ethical decisions		▨	▨
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines	▨		
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines	▨	▨	▨
g. Explain the value of and need for life-long learning in aviation careers		▨	
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;	▨		▨
i. Identify and solve problems	▨	▨	▨
j. Apply knowledge of sustainability to aviation issues.		▨	
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;	▨	▨	▨
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.		▨	▨

Aviation Department Assessment Plan

m. Evaluate aviation safety and the impact of human factors on safety;			
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.			
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;			
p. Discuss the impact of meteorology and environmental issues on aviation operations.			

4.4.2 Commercial Fixed Wing SLOs in Relation to Commercial Fixed Wing Program Educational Goals

	Goal 1: Develop foundational understanding for students to efficiently and safely operate fixed-wing aircraft within the national airspace system.	Goal 2: Promote understanding of the diverse operating environments of private, commercial, and military operations in both single-pilot and crewed operations.	Goal 3: Develop systems, procedural, and regulatory knowledge necessary for operating fixed-wing single-pilot and/or crewed pilot operations in a global aviation environment.
Commercial Fixed Wing SLOs			
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating turbine aircraft in commercial operations.			
Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments, applying principles in operational, problem-solving scenarios.			
Knowledge of the skills, techniques and procedures for managing aviation entities.			
Be able to demonstrate knowledge, skills, techniques, and			

Aviation Department Assessment Plan

procedures for safe operation of non-turbine aircraft in commercial operations.			
Be able to demonstrate instructional knowledge and skills in single-engine VFR and IFR flight.			
Knowledge of the skills necessary to be a professional and ethical leader.			

4.4.3 AABI General Outcomes in Relation to Commercial Helicopter Program Educational Goals

	Goal 1: Develop foundational understanding for students to efficiently and safely operate rotorcraft within the national airspace system.	Goal 2: Promote understanding of the diverse operating environments of private, commercial, and military operations.	Goal 3: Develop systems, procedural, and regulatory knowledge necessary for operating helicopters in a global aviation environment.
AABI General Outcomes			
a. Apply mathematics, science, and applied sciences to aviation-related disciplines			
b. Analyze and interpret data			
c. Work effectively on teams			
d. Make professional and ethical decisions			
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines			
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines			
g. Explain the value of and need for life-long learning in aviation careers			
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;			
i. Identify and solve problems			
j. Apply knowledge of sustainability to aviation issues.			
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;			

Aviation Department Assessment Plan

l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.			
m. Evaluate aviation safety and the impact of human factors on safety;			
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.			
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;			
p. Discuss the impact of meteorology and environmental issues on aviation operations.			

4.4.4   Commercial Aviation Helicopter SLOs in Relation to Program Educational Goals

	Goal 1: Develop foundational understanding for students to efficiently and safely operate rotorcraft within the national airspace system.	Goal 2: Promote understanding of the diverse operating environments of private, commercial, and military operations.	Goal 3: Develop systems, procedural, and regulatory knowledge necessary for operating helicopters in a global aviation environment.
Commercial Helicopter SLOs			
1. Be able to demonstrate knowledge, skills, techniques, and procedures for safe, professional, and ethical operation of helicopters in commercial operations.			
2. Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments, applying principles in operational, problem-solving scenarios.			

Aviation Department Assessment Plan

3. Knowledge of the skills, techniques and procedures for managing aviation entities.			
4. Be able to demonstrate professional and ethical instructional knowledge and skills in VFR and IFR flight.			

4.4.5 AABI General Outcomes in Relation to Air Traffic Management Program Educational Goals

	Goal 1: Prepare graduates with the foundational knowledge, skills, and professionalism needed for careers in air traffic management.	Goal 2: Develop graduates who can effectively assess air traffic situations and support safe and efficient traffic operations.	Goal 3: Foster ethical responsibility, adaptability, and ongoing professional development in an evolving aviation environment.
AABI General Outcomes			
a. Apply mathematics, science, and applied sciences to aviation-related disciplines			
b. Analyze and interpret data			
c. Work effectively on teams			
d. Make professional and ethical decisions			
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines			
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines			
g. Explain the value of and need for life-long learning in aviation careers			
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;			
i. Identify and solve problems			
j. Apply knowledge of sustainability to aviation issues.			
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;			
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations			

Aviation Department Assessment Plan

related to the maintenance of aircraft and associated systems.			
m. Evaluate aviation safety and the impact of human factors on safety;			
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.			
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;			
p. Discuss the impact of meteorology and environmental issues on aviation operations.			

4.4.6   Air Traffic Management SLOs in Relation to Program Educational Goals

	Goal 1: Prepare graduates with the foundational knowledge, skills, and professionalism needed for careers in air traffic management.	Goal 2: Develop graduates who can effectively assess air traffic situations and support safe and efficient traffic operations.	Goal 3: Foster ethical responsibility, adaptability, and ongoing professional development in an evolving aviation environment.
Air Traffic Management Outcomes			
Knowledge of and the ability to apply tower operations.			
Knowledge of and the ability to apply radar operations.			
Knowledge of and the ability to apply non-radar operations.			
Knowledge of the emerging industry and the ability to recognize and engage in life-long learning.			
Knowledge and ability to apply enroute radar operations			

Aviation Department Assessment Plan

4.4.7   AABI General Outcomes in Relation to Unmanned Aircraft Systems Program Educational Goals

	Goal 1: Prepare graduates with foundational knowledge, technical skills, and professionalism for careers in unmanned and autonomous aircraft systems.	Goal 2: Develop graduates who can analyze operational situations and support safe and effective UAS operations.	Goal 3: Foster responsibility, adaptability, and continuous professional development in the evolving UAS industry.
AABI General Outcomes			
a. Apply mathematics, science, and applied sciences to aviation-related disciplines		X	
b. Analyze and interpret data	X	X	
c. Work effectively on teams	X		X
d. Make professional and ethical decisions	X		X
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines	X		
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines	X		
g. Explain the value of and need for life-long learning in aviation careers			X
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;	X	X	
i. Identify and solve problems	X	X	
j. Apply knowledge of sustainability to aviation issues.	X		X
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;	X	X	
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.		X	X
m. Evaluate aviation safety and the impact of human factors on safety;	X	X	X
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and	X	X	X

Aviation Department Assessment Plan

Outcome\Objective	Goal 1: Prepare graduates with foundational knowledge, technical skills, and professionalism for careers in unmanned and autonomous aircraft systems.	Goal 2: Develop graduates who can analyze operational situations and support safe and effective UAS operations.	Goal 3: Foster responsibility, adaptability, and continuous professional development in the evolving UAS industry.
practices; and applicable national aviation law, regulations and labor issues.			
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;			
p. Discuss the impact of meteorology and environmental issues on aviation operations.			

4.4.8   UAS SLOs in Relation to Program Educational Goals

Outcome\Objective	Goal 1: Prepare graduates with foundational knowledge, technical skills, and professionalism for careers in unmanned and autonomous aircraft systems.	Goal 2: Develop graduates who can analyze operational situations and support safe and effective UAS operations.	Goal 3: Foster responsibility, adaptability, and continuous professional development in the evolving UAS industry.
Unmanned Aircraft System Operations			
Be able to demonstrate crew performance and coordination in UAS and autonomous operational environments while applying problem solving skills and an in-depth understanding of the operational, regulatory and safety environment of the National Airspace System.			
Be able to demonstrate airmanship commensurate with applicable professional certification.			
Demonstrate an understanding of the science, technology, engineering, and mathematics principles specific to UAS.			
Develop a working knowledge of technologies and their application in UAS and autonomous operations.			
Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS and autonomous operations.			

Aviation Department Assessment Plan

Be familiar with computer technologies and processes associated with UAS and autonomous operations to include programming, data storage and security, and networking.			

4.4.9   AABI General Outcomes in Relation to Aviation Safety and Operations Program Educational Goals

	Goal 1: Prepare graduates with foundational knowledge, analytical skills, and professionalism for careers in aviation safety and operations.	**Goal 2:** Develop graduates who can evaluate operational environments and support safe and effective aviation operations.	**Goal 3:** Foster responsibility, adaptability, and continuous professional development within the aviation industry.
AABI General Outcomes			
a. Apply mathematics, science, and applied sciences to aviation-related disciplines	X	X	
b. Analyze and interpret data	X	X	
c. Work effectively on teams	X		X
d. Make professional and ethical decisions	X		X
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines	X		
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines	X	X	
g. Explain the value of and need for life-long learning in aviation careers			X
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;	X	X	
i. Identify and solve problems	X	X	
j. Apply knowledge of sustainability to aviation issues.	X		X
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;	X	X	
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations	X	X	

Aviation Department Assessment Plan

related to the maintenance of aircraft and associated systems.			
m. Evaluate aviation safety and the impact of human factors on safety;			
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.			
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;			
p. Discuss the impact of meteorology and environmental issues on aviation operations.			

4.4.10 Aviation Safety and Operations SLOs in Relation to Program Educational Goals

Outcome\Objective	Goal 1: Prepare graduates with foundational knowledge, analytical skills, and professionalism for careers in aviation safety and operations.	Goal 2: Develop graduates who can evaluate operational environments and support safe and effective aviation operations.	Goal 3: Foster responsibility, adaptability, and continuous professional development within the aviation industry.
Aviation Safety Outcomes			
Demonstrate knowledge of the skills, techniques, and procedures needed for safe and ethical operation within multiple aviation entities.			
Demonstrate knowledge of the impact human physiology and decision-making has on aviation safety.			
Students will understand and apply principles of hazardous material management, including identification, handling, disposal, and emergency response; ensuring safety and regulatory compliance.			
Demonstrate a wide breadth of knowledge in the area of safety and accident investigations.			
Demonstrate knowledge of the implications operational environments			

Aviation Department Assessment Plan

have on management and safety decision-making.			

4.4.11 AABI General Outcomes in Relation to Aviation Studies Program Educational Goals

	Goal 1: Prepare graduates with foundational knowledge, analytical skills, and professionalism for careers in aviation and aerospace.	**Goal 2:** Develop graduates who can critically evaluate aviation systems, technologies, and operational environments.	**Goal 3:** Foster ethical responsibility, adaptability, and lifelong learning in the aviation industry.
AABI General Outcomes			
a. Apply mathematics, science, and applied sciences to aviation-related disciplines	X	X	
b. Analyze and interpret data	X	X	
c. Work effectively on teams	X		X
d. Make professional and ethical decisions	X		X
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines	X		
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines	X		
g. Explain the value of and need for life-long learning in aviation careers			X
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;	X	X	
i. Identify and solve problems	X	X	
j. Apply knowledge of sustainability to aviation issues.	X		X
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;	X	X	
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.	X	X	
m. Evaluate aviation safety and the impact of human factors on safety;	X	X	
n. Discuss the impact on aviation operation of international aviation	X	X	

Aviation Department Assessment Plan

law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.			
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;			
p. Discuss the impact of meteorology and environmental issues on aviation operations.			

4.4.12 Aviation Studies SLOs in Relation to Program Educational Goals

Outcome\Objective	Goal 1: Prepare graduates with foundational knowledge, analytical skills, and professionalism for careers in aviation and aerospace.	Goal 2: Develop graduates who can critically evaluate aviation systems, technologies, and operational environments.	Goal 3: Foster ethical responsibility, adaptability, and lifelong learning in the aviation industry.
Aviation Studies Outcomes			
Be able to demonstrate strong critical thinking and communication skills.			
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating within multiple aviation entities.			
Be able to demonstrate a wide breath of knowledge in the area of aviation safety or business			
Knowledge of professionalism and ethics as it relates to the field of aviation.			

Aviation Department Assessment Plan

4.4.13 Aviation Management SLOs in Relation to Program Educational Goals

Outcome\Objective	Goal 1: Create graduates that harbor excellent aviation technical abilities.	Goal 2: Strive for human excellence through the use of a liberal education.	Goal 3: Instill characteristics that will fully develop our student's human potential.	Goal 4: Promote a solid foundation for the continued utilization of technology.	Goal 5: Provide skills to build and promote a culture of safety in the aerospace industry.
Aviation Management Outcomes					
Demonstrate knowledge of management theories and practices as they apply to a global market.		X	X		
Demonstrate Knowledge of aviation management principles, including airport operations, airline management, air traffic control, aviation safety, aviation security, and aviation economics.	X			X	X
Demonstrate knowledge of the regulatory environment governing aviation, including federal, state, and international regulations.	X	X	X	X	X

4.4.14 M.S. & Ph.D. SLOs in Relation to Program Educational Goals

Outcome\Objective	Goal 1: Develop aviation professionals who use their technical and theoretical skills to solve problems within the aviation industry.	Goal 2: Develop a student's higher-order thinking abilities and instill a quest for life-long learning.	Goal 3: Develop a scholarly set of skills that will allow the student to function in a professional manner.
Aviation M.S. Outcomes			
Students will apply skills learned in statistics and research methods courses to design a research question and conduct the appropriate research to address a problem.	X		
Students will apply the appropriate theories learned in their coursework to a research problem.	X		

Aviation Department Assessment Plan

Students will synthesize gathered information and use their analytical skills to develop possible solutions to a particular problem.			
Students will complete either a thesis or an independent study project which will demonstrate their desire and ability to increase knowledge and analyze information with a high-level of skill.			
Students will realize that being a professional requires a continual drive to develop and update an individual's skill set.			
Students will be able to write at an advanced level.			
Students will be able to effectively present their ideas using a variety of media.			
Students will be able to critically think, analyze and evaluate all types of information available in today's global society.			

Aviation Department Assessment Plan

4.5 RELATIONSHIP OF AABI GENERAL AND STUDENT LEARNING OUTCOMES (SLOS) TO AVIATION COURSES REQUIRED IN MAJOR

4.5.1 Relationship of Commercial Aviation Fixed Wing Student Learning Outcomes to Aviation Courses Required in Major

Outcome\Objective	Avit. 100	Avit. 102	Avit. 103	Avit. 126	Avit. 208	Avit. 221	Avit. 222	Avit. 250	Avit. 309	Avit. 323	Avit. 324	Avit. 325	Avit. 327	Avit. 402	Avit. 403	Avit. 405	Avit 407	Avit 411	Avit. 414	Avit. 415	Avit. 421	Avit. 428	Avit. 430	Avit. 480	Avit. 485
AABI General Outcomes																									
a. Apply mathematics, science, and applied sciences to aviation-related disciplines		I			I			I	P	P	P	P							E	E	E	E		E	
b. Analyze and interpret data		I	I	I	I		PE		IP	P	PE	P	P		P	P	E	E				P	PE	PE	E
c. Work effectively on teams				I									PE		PE		PE						PE	E	E
d. Make professional and ethical decisions			I	I	I									P	P	P		PE					PE	E	E
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines				I			IP					P	PE	PE	PE	PE	PE			P	PE	PE	PE		E
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines			I	I	I			I	P			P	P	PE	PE	P	PE	PE	PE	PE	PE	PE	PE	E	E
g. Explain the value of and need for life-long learning in aviation careers			I	I									I			P			P		P		P		E
h. Use the techniques, skills, and modern technology necessary		I	I	I	I	I		I						P	P	P		PE	PE	PE	PE	PE	PE	E	E

Outcome	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24
for professional practice in aviation;																								
i. Identify and solve problems	I	I	I	I	I	I			P	P	P	P		P	PE	PE	P	E	E	PE	PE		E	E
j. Apply knowledge of sustainability to aviation issues.			I										PE		PE	PE								E
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;	I	I	I	I										P	PE			PE				E	E	E
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.		I		I				I	P	P	PE	P			PE	PE		PE	PE		E			
m. Evaluate aviation safety and the impact of human factors on safety;		I		I	I	P		P	P		P	P			PE			PE		PE	E			
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.		I		I			PE		I		IPE			IPE	P	P	IPE	PE						
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;	I	I	I				P				PE				PE	PE								
p. Discuss the impact of meteorology and environmental issues on aviation operations.		I		I		I,P	P				P				P,E	P,E	P,E	P,E						

Aviation Department Assessment Plan

Commercial Aviation SLOs

Outcome\Objective	Avit. 100	Avit. 102	Avit. 103	Avit. 126	Avit. 208	Avit. 221	Avit. 222	Avit. 250	Avit. 309	Avit. 323	Avit. 324	Avit. 325	Avit. 327	Avit. 402	Avit. 403	Avit. 405	Avit 407	Avit 411	Avit. 414	Avit. 415	Avit. 421	Avit. 428	Avit. 430	Avit. 480	Avit. 485
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating turbine aircraft in commercial operations				I								P						P			E	E		E	
Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments, applying principles in operational, problem-solving scenarios.		I	I		I	I	P	P	P	P		E							P E	P E	E	E	E	E	
Knowledge of the skills, techniques and procedures for managing aviation entities.	I		I											P	P	P	P	E							E
Be able to demonstrate knowledge, skills, techniques, and procedures for safe, professional, and ethical operation of non-turbine aircraft in commercial operations.		I				I	P			P	P	P							E	E			E		
Be able to demonstrate instructional knowledge and skills in single-engine VFR and IFR flight.																			I P E	I P E					
Knowledge of the skills necessary to be a professional and ethical leader.																			I P	I P				E	E

Aviation Department Assessment Plan

4.5.1.1 Commercial Aviation Fixed Wing Student Learning Outcomes in Relationship to AABI General Outcomes

AABI General Outcomes	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI m	AABI n	AABI o	AABI p
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating turbine aircraft in commercial operations	X	X	X	X		X		X	X		X	X	X		X	X
Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments, applying principles in operational, problem-solving scenarios.	X	X	X	X				X	X		X	X				X
Knowledge of the skills, techniques and procedures for managing aviation entities.		X	X	X	X	X	X	X	X	X	X			X	X	X
Be able to demonstrate knowledge, skills, techniques, and procedures for safe operation of non-turbine aircraft in commercial operations.	X	X	X	X		X		X	X		X	X	X		X	X
Be able to demonstrate instructional knowledge and skills in single-engine VFR and IFR flight.	X	X	X	X		X		X			X	X	X		X	X
Knowledge of the skills necessary to be a professional and ethical leader.		X	X	X	X	X	X	X	X	X	X		X	X		

Aviation Department Assessment Plan

4.5.2   Commercial Aviation Fixed Wing Evidence Collection Chart

Commercial Aviation SLO	Courses	Evidence (Assignments)	Desired Outcome
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating turbine aircraft in commercial operations	Avit 327	Final Exam	Students will average 80 percent on the identified assignments across all the courses listed.
	Avit 421	Exam 1	
	Avit 428	Block 3 Exam	
	Avit 480	MV Grade	
Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments, applying principles in operational, problem-solving scenarios.	Avit 250	Block 1 Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 309	Final Exam	
	Avit 430	LOFT Scenarios	
	Avit 480	LOE Grade	
Knowledge of the skills, techniques and procedures for managing aviation entities.	Avit 402	Group Project/Discussion Questions	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 405	Airline Simulation	
	Avit 407	Block 1 Exam	
Be able to demonstrate knowledge, skills, techniques, and procedures for safe operation of non-turbine aircraft in commercial operations.	Avit 221	Block 4 Exam Final Stage Check	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 222	Final Exam Final Stage Check	
	Avit 323		
	Avit 325		
	Avit 414		
	Avit 415		
Be able to demonstrate instructional knowledge and skills in single-engine VFR and IFR flight.	Avit 414	Final Exam Final Stage Check	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 415		
Knowledge of the skills necessary to be a professional and ethical leader.	Avit 414	Final Stage Check	
	Avit 485	Case Study/Professionalism Activity	

Aviation Department Assessment Plan

4.5.3   Relationship of Commercial Aviation Helicopter Student Learning Outcomes to Aviation Courses Required in Major

Outcome\Objective	Avit. 100	Avit. 103	Avit. 126	Avit. 142	Avit. 143	Avit. 208	Avit. 241	Avit 242	Avit. 250	Avit. 309	Avit. 327	Avit. 342	Avit. 343	Avit. 402	Avit. 403	Avit. 405	Avit 407	Avit 411	Avit. 415	Avit. 430	Avit. 440	Avit. 444	Avit. 445	Avit. 485
AABI General Outcomes																								
a. Apply mathematics, science, and applied sciences to aviation-related disciplines				I	I	P	P			P	P	P	P					E			E	E	E	
b. Analyze and interpret data		I	I	I	I	P	P				P	P	P	P		P	P	E		E	E	E	E	E
c. Work effectively on teams					I										P		E		E	E	E	E		E
d. Make professional and ethical decisions		I	I			P									P	P	P			E	E	E	E	E
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines						P	P				P			P	P	P	P	P	E	E	E	E		E
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines		I	I			P	P	P	P	P	P		P	P	P	P	P	P	E	E	E	E	E	E
g. Explain the value of and need for life-long learning in aviation careers	I		I	I	I	I					P	P	P		P	P	P		E		E	E	E	E
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;		I	I	I	I	P	P	P	P		P	P	P	P	E				E	E	E	E	E	E
i. Identify and solve problems		I	I	I	I	I	P	P			P	P	P		E	E	E	E	E		E	E	E	E
j. Apply knowledge of sustainability to aviation issues.			I												P	P	P							E

Outcome\Objective	Avit. 100	Avit. 103	Avit. 126	Avit. 142	Avit. 143	Avit. 208	Avit. 241	Avit. 242	Avit. 250	Avit. 309	Avit. 327	Avit. 342	Avit. 343	Avit. 402	Avit. 403	Avit. 405	Avit 407	Avit. 411	Avit. 415	Avit. 430	Avit. 440	Avit. 444	Avit. 445	Avit. 485
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;	I	I	I	I	I		P	P			P	P					P			E	E	E	E	E
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.			I	I	I		P	P		P	P	P	P					E	E		E	E	E	
m. Evaluate aviation safety and the impact of human factors on safety;			I	I	I	I	P	P	P	P	P	P	P					E	E	E	E	E		
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.			I	I	I						P	P	P	E	E	E					E	E	E	E
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;		I	I	I	I		P	P			P	P	P					E	E		E	E	E	
p. Discuss the impact of meteorology and environmental issues on aviation operations.			I	I	I		P	P			P	P	P					E	E		E	E	E	
Commercial Helicopter SLOs																								
Be able to demonstrate knowledge, skills, techniques,				I	I	I	I	I			P							E	E		E			

Aviation Department Assessment Plan

Learning Outcome																				
and procedures for safe, professional, and ethical operation of helicopters in commercial operations.																				
Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments, applying principles in operational, problem-solving scenarios.	I		I	I	I	P	P	P	P		P	P				E	E	E	E	E
Knowledge of the skills, techniques and procedures for managing aviation entities.	I		I							E	E	E	E	E						E
Be able to demonstrate professional and ethical instructional knowledge and skills in VFR and IFR flight.															I	P E	P E			

4.5.3.1   Commercial Aviation Helicopter Student Learning Outcomes in Relationship to AABI General and Aviation Core

AABI General and Aviation Core Learning Outcomes	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI m	AABI n	AABI o	AABI p
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating helicopters in commercial operations.	X	X	X	X		X		X	X		X	X	X		X	X
Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments,	X	X	X	X				X	X			X	X			X

Aviation Department Assessment Plan

applying principles in operational, problem-solving scenarios.															
Knowledge of the skills, techniques and procedures for managing aviation entities.		X	X	X	X	X	X	X	X	X	X		X		X	X
Be able to demonstrate instructional knowledge and skills in VFR and IFR flight.	X	X	X	X			X	X		X	X			X	X
Knowledge of the skills necessary to be a professional and ethical leader.		X	X	X	X	X	X	X	X	X	X		X	X	X	

4.5.4 Commercial Aviation Helicopter Evidence Collection Chart

Commercial Aviation SLO	Courses	Evidence (Assignments)	Desired Outcome
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating turbine aircraft in commercial operations	Avit 241	Exam 1	Students will average 80 percent on the identified assignments across all the courses listed.
	Avit 327	Final Exam	
Be able to demonstrate knowledge of human physiology, crew performance in hostile and/or challenging environments, applying principles in operational, problem-solving scenarios.	Avit 250	Block 1 Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 309	Final Exam	
	Avit 430	LOFT Scenarios	
Knowledge of the skills, techniques and procedures for managing aviation entities.	Avit 402	Group Project/Discussion Questions	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 405	Airline Simulation	
	Avit 407	Block 1 Exam	
	Avit 242	Stage Check	

Aviation Department Assessment Plan

Be able to demonstrate knowledge, skills, techniques, and procedures for safe operation of non-turbine aircraft in commercial operations.	Avit 342	Final Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 343	Final Stage Check	
	Avit 415	Final Exam Final Stage Check	
	Avit 440	Final Stage Check	
	Avit 445	Final Stage Check	
Be able to demonstrate instructional knowledge and skills in single-engine VFR and IFR flight.	Avit 415	Final Exam Final Stage Check	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 440	Final Stage Check	
Knowledge of the skills necessary to be a professional and ethical leader.	Avit 440	Final Stage Check	
	Avit 485	Case Study/Professionalism Activity	

4.5.5 Relationship of Air Traffic Management Student Learning Outcomes to Aviation Courses Required in Major

Outcome\Objective	Avit. 100	Avit. 103	Avit. 105	Avit. 126	Avit. 208	Avit. 250	Avit. 260	Avit. 261	Avit. 362	Avit. 363	Avit. 369	Avit. 402	Avit. 403	Avit. 464	Avit. 468	Avit. 470
AABI General Outcomes																
a. Apply mathematics, science, and applied sciences to aviation-related disciplines		I	I	I	P						P		E	E		E
b. Analyze and interpret data		I	I		P	P	P	P	P	E	P	P	P	E	E	E
c. Work effectively on teams		I	I	I	P	P	P	P	P	E		P	P	E	E	E
d. Make professional and ethical decisions			I	I	P									E		E
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines		I	I	I	P	P	P	P	P	E	P	P		E		E

Aviation Department Assessment Plan

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines		I	I	I	P		P	P	P	E			P	E	E	E
g. Explain the value of and need for life-long learning in aviation careers			I	I								E				
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;	I	I	I	I										E		E
i. Identify and solve problems			I	I			P							E		
j. Apply knowledge of sustainability to aviation issues.			I	I	E	E								E		
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;			I	I								E				
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.		I		I			I	P	P	E	P	P		E	P	E
m. Evaluate aviation safety and the impact of human factors on safety;			I	I			P		P			P		E		E
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.		I	I	I	P						P		E	E		E

Aviation Department Assessment Plan

Outcome\Objective	Avit. 100	Avit. 103	Avit. 105	Avit. 126	Avit. 208	Avit. 250	Avit. 260	Avit. 261	Avit. 362	Avit. 363	Avit. 369	Avit. 402	Avit. 403	Avit. 464	Avit. 468	Avit. 470
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;	I	I			P	P	P	P	P	E	P	P	P	E	E	E
p. Discuss the impact of meteorology and environmental issues on aviation operations.	I	I	I		P	P	P	P	P	E		P	P	E	E	E
Air Traffic Management Outcomes																
Knowledge of and the ability to apply tower operations.	I	I					I		P					E		E
Knowledge of and the ability to apply radar operations.		I						P		E						E
Knowledge of and the ability to apply non-radar operations.														P	E	
Knowledge of the emerging industry and the ability to recognize and engage in life-long learning.		I		I										E		E
Knowledge and ability to apply enroute radar operations																I P

Aviation Department Assessment Plan

AABI General and Aviation Core Learning Outcomes	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI m	AABI n	AABI o	AABI p
Knowledge of and the ability to apply tower operations.	X	X	X	X		X		X	X		X	X	X	X	X	X
Knowledge of and the ability to apply radar operations.	X	X	X	X		X		X	X		X	X	X	X	X	X
Knowledge of and the ability to apply non-radar operations.	X	X	X	X		X		X	X		X	X	X	X	X	X
Knowledge of the emerging industry and the ability to recognize and engage in life-long learning.					X	X	X			X	X		X	X		
Knowledge and ability to apply enroute radar operations.	X	X	X	X	X	X		X	X		X	X	X	X	X	X

4.5.6   Air Traffic Management Evidence Collection Chart

Air Traffic Management SLO	Courses	Evidence (Assignments)	Desired Outcome
Knowledge of and the ability to apply tower operations.	Avit 260	Practical Midterm Practical Final Written Final	Students will average 80 percent on the identified assignments across all the courses listed.
	Avit 362	Practical Midterm Practical Final Written Midterm Written Final	
	Avit 369	TBD (Fall 2025)	
	Avit 464	Practical Midterm Practical Final Written Midterm	

Aviation Department Assessment Plan

		Written Final	
	Avit 470	AT Basics Written Midterm AT Basics Written Final	
Knowledge of and the ability to apply radar operations.	Avit 261	Practical Midterm Practical Final Written Midterm Written Final	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 363	Practical Midterm Practical Final Written Midterm Written Final	
	Avit 369	TBD (Fall 2025)	
	Avit 470	Practical Final AT Basics Written Midterm AT Basics Written Final	
Knowledge of and the ability to apply non-radar operations.	Avit 468	Practical Midterm Practical Final Written Final	Students will average 80 percent on the identified assignments across all the course(s) listed.
Knowledge of the emerging industry and the ability to recognize and engage in life-long learning.	Avit 464	Written Midterm Written Final	Students will average 80 percent on the identified assignments across all the course(s) listed.
Knowledge and ability to apply enroute radar operations.	Avit 470	Practical Final AT Basics Written Midterm AT Basics Written Final	Students will average 80 percent on the identified assignments across all the course(s) listed.

Aviation Department Assessment Plan

4.5.7 Relationship of Unmanned Aircraft System Student Learning Outcomes to Aviation Courses Required in Major

Outcome\Objective	Avit. 100	Avit. 102	Avit. 103	Avit. 126	Avit. 208	Avit. 221	Avit. 222	Avit. 238	Avit. 239	Avit. 240	Avit. 250	Avit. 323	Avit. 324	Avit. 325	Avit. 331	Avit. 332	Avit. 333	Avit. 337	Avit. 403	Avit. 419	Avit. 430	Avit. 438	Avit. 450	Avit. 485
AABI General Outcomes																								
a. Apply mathematics, science, and applied sciences to aviation-related disciplines	I				I					I		P	P	P	P	P	E		E		E	E		
b. Analyze and interpret data		I	I	I	I P	I P	I P			I P		P	P	P	P	P	P		E	E	E		E	
c. Work effectively on teams				I		I	I			I		P			P	P	E		E	E	E		E	
d. Make professional and ethical decisions		I	I	I		I	I			I						P			E	E	E	E	E	
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines		I	I	I		I	I			I	P				P	P	P	P	E	E	E	E	E	
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines		I	I	I		I	I			I	P				P	P	P	P	E	E	E	E	E	
g. Explain the value of and need for life-long learning in aviation careers		I	I							I	I				P	P	P		E		E		E	
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;	I	I	I	I	X					I	I	P			P	P	P	P	E	E	E		E	
i. Identify and solve problems		I	I	I	I	P	P	I	I	I		P	P	P	P	P	P	P	E	E	E		E	
j. Apply knowledge of sustainability to aviation issues.			I							I					P	P			E		E		E	
k. Describe the professional attributes, requirements for	I	I	I	I						I					P	P	P	P	E	E	E		E	I

Aviation Department Assessment Plan

Outcome\Objective	Avit. 100	Avit. 102	Avit. 103	Avit. 126	Avit. 208	Avit. 221	Avit. 222	Avit. 238	Avit. 239	Avit. 240	Avit. 250	Avit. 323	Avit. 324	Avit. 325	Avit. 331	Avit. 332	Avit. 333	Avit. 337	Avit. 403	Avit. 419	Avit. 430	Avit. 438	Avit. 450	Avit. 485
certifications, and planning applicable to aviation careers;																								
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.		I		I				I	I			P	P	P	E		P		P		P			
m. Evaluate aviation safety and the impact of human factors on safety;			I					I	I	I							P		P	E	E			
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.	I		I	I	P			I	I	I	P	P	P	P			P		E	E	E			
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;			I	I				I		I							P		E		E		E	
p. Discuss the impact of meteorology and environmental issues on aviation operations.		I	I	I			P	I		I							P		E		E			
Unmanned Aircraft System SLOs																								
Be able to demonstrate crew performance and coordination in UAS and autonomous								I									P		E	P	E	P	P	

Aviation Department Assessment Plan

Outcome																								
operational environments while applying problem solving skills and an in-depth understanding of the operational, regulatory and safety environment of the National Airspace System.																								
Be able to demonstrate airmanship commensurate with applicable professional certification.	I	I	I	I	P	P	I	P			P	P	I	P		P		E	E		P	P		
Demonstrate an understanding of the science, technology, engineering, and mathematics principles specific to UAS.			I			P	P	P					P	P	P		E		E	P				
Develop a working knowledge of technologies and their application in UAS and autonomous operations.			I			I	I	I					P	P		E		E	I					
Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS and autonomous operations.			I				I						P	P	E			E	E	P				
Be familiar with computer technologies and processes associated with UAS and autonomous operations to include programming, data storage and security, and networking.							I	I					P	P	E		E		E	P				

Aviation Department Assessment Plan

AABI General and Aviation Core Learning Outcomes	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI m	AABI n	AABI o	AABI p
Be able to demonstrate crew performance and coordination in UAS operational environments while applying problem solving skills and an in-depth understanding of the operational, regulatory and safety environment of the National Airspace System.			X	X			X	X	X	X		X			X	X
Be able to demonstrate airmanship commensurate with applicable professional licensure.	X	X	X	X				X	X		X	X	X	X	X	X
Demonstrate an understanding of the science, technology, engineering, and mathematics principles specific to UAS.	X	X			X	X		X	X	X	X	X		X	X	X
Develop a working knowledge of technologies and their application in UAS operations.	X	X	X	X	X	X		X	X		X	X		X	X	X
Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS operations.				X	X	X	X		X	X				X	X	X
Be familiar with computer technologies and processes associated with UAS operations to include programming, data storage and security, and networking.	X	X			X	X		X	X						X	X

Aviation Department Assessment Plan

4.5.8   UAS Evidence Table

UAS SLO	Courses	Evidence (Assignments)	Desired Outcome
Be able to demonstrate crew performance and coordination in UA and autonomous S operational environments while applying problem solving skills and an in-depth understanding of the operational, regulatory and safety environment of the National Airspace System.	Avit 238	Block 1 Exam	Students will average 80 percent on the identified assignments across all the courses listed.
	Avit 337	Flight Lab Score	
	Avit 438	Flight Lab Score	
	Avit 419	Op Authorization II Assignment	
Be able to demonstrate airmanship commensurate with applicable professional certification.	Avit 238	Flight Lab Score	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 337	Flight Lab Score	
Demonstrate an understanding of the science, technology, engineering, and mathematics principles specific to UAS.	Avit 240	Exam 2	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 331	Block Quiz	
	Avit 332	Block Quiz	
	Avit 337	Block 1 Exam	
Develop a working knowledge of technologies and their application in UAS and autonomous operations.	Avit 239	Exam 2	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 240	Exam 2	
	Avit 337	Flight Lab Score	
Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS and autonomous operations.	Avit 126	Final Exam (Consider exam/quiz in fall 2025)	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 239	Exam	
	Avit 403	Module Quiz	
	Avit 450	Op Authorization II Assignment	
Be familiar with computer technologies and processes associated with UAS and	Avit 239	Exam 2	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 240	Exam 2	
	Avit 333	Assignment - Processing of Imagery	

Aviation Department Assessment Plan

autonomous operations to include programming, data storage and security, and networking.			

4.5.9   Relationship of Aviation Safety and Operations Student Learning Outcomes to Aviation Courses Required in Major

Outcome\Objective	Avit. 100	Avit. 103	Avit. 105	Avit. 126	Avit. 176	Avit. 208	Avit. 250	Avit. 276	Avit. 311	Avit. 312	Avit. 313	Avit. 314	Avit. 328	Avit. 350	Avit. 376	Avit. 402	Avit. 403	Avit. 405	Avit 407	Avit. 412	Avit. 443	Avit. 476	Avit. 485
AABI General Outcomes																							
a. Apply mathematics, science, and applied sciences to aviation-related disciplines			I										P E										
b. Analyze and interpret data		I		I	I			P	P	P		P		P		E		E	E			E	E
c. Work effectively on teams					I				P	P		P				E		E					E
d. Make professional and ethical decisions		I		I	I			P		P	P	P		P	P	E		E	E		E	E	E
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines		I		I	I	I			P	P		P				E	E	E	E				E
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines		I		I	I	P				P		P				P	E	E	E				E
g. Explain the value of and need for life-long learning in aviation careers				I		P												E					E
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;		I		I	I	I			P	P		P	P	P	E	E					E		E

Aviation Department Assessment Plan

Outcome\Objective	Avit. 100	Avit. 103	Avit. 105	Avit. 126	Avit. 176	Avit. 208	Avit. 250	Avit. 276	Avit. 311	Avit. 312	Avit. 313	Avit. 314	Avit. 328	Avit. 350	Avit. 376	Avit. 402	Avit. 403	Avit. 405	Avit. 407	Avit. 412	Avit. 443	Avit. 476	Avit. 485
i. Identify and solve problems		I		I	I	I		P	P	P		P	P	P	P		P	P	P		E	E	E
j. Apply knowledge of sustainability to aviation issues.				I	I						P					P		E	E				E
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;	I	I		I				P	P			P							E				E
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.				I				P	P			P	E	E									
m. Evaluate aviation safety and the impact of human factors on safety;				I	I	I	P	P		P			P		P	P					E	E	
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.				I	I		I			P	P	P			P		P	P	P			E	E
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;		I		I									P		E								E
p. Discuss the impact of meteorology and environmental issues on aviation operations.				I												P						E	E

Aviation Department Assessment Plan

Aviation Safety SLOs																							
Demonstrate knowledge of the skills, techniques, and procedures needed for safe and ethical operation within multiple aviation entities.	I	I	I	I		P	P	P	P	P		P	P	P							E	E	E
Demonstrate knowledge of the impact human physiology and decision-making has on aviation safety.		I	I	I	I	I	I	P		P		P	P	P	E						E	E	
Demonstrate a wide breadth of knowledge in the area of safety and accident investigations.			I	I	I		P	P	P		P		P	P	E	E	E	E		E	E	E	
Students will understand and apply principles of hazardous material management, including identification, handling, disposal, and emergency response; ensuring safety and regulatory compliance.				I			I						P									E	
Demonstrate knowledge of the implications operational environments have on management and safety decision-making.					I		I	P		P				E			E		E				

4.5.9.1 Aviation Safety Learning Outcomes in Relationship to AABI General and Aviation Core

AABI General and Aviation Core Learning Outcomes	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI m	AABI n	AABI o	AABI p
Be able to demonstrate knowledge of the skills, techniques, and procedures for	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X

Aviation Department Assessment Plan

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15
safely operating within multiple aviation entities.															
Knowledge of the impact human physiology and decision-making has on aviation safety.	X	X	X	X			X	X	X		X	X			X
Be able to demonstrate a wide breath of knowledge in the area of safety standards and investigations.		X	X	X			X	X	X		X	X	X		X
Students will understand and apply principles of hazardous material management, including identification, handling, disposal, and emergency response; ensuring safety and regulatory compliance.	X	X	X	X			X	X		X		X	X		X
Be able to demonstrate professional and ethical knowledge around aviation safety and accident investigation.		X	X	X		X	X	X	X	X	X		X	X	X

4.5.10   Aviation Safety Evidence Collection Chart

Aviation Safety SLO	Courses	Evidence (Assignments)	Desired Outcome
Demonstrate knowledge of the skills, techniques, and procedures needed for safe and ethical operation within multiple aviation entities.	Avit 105	Final Exam	Students will average 80 percent on the identified assignments across all the courses listed.
	Avit 485	Interdisciplinary Group Presentation	
Demonstrate knowledge of the impact human physiology and decision-making has on aviation safety.	Avit 250	Final Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 350	Final Exam	

Aviation Department Assessment Plan

Students will understand and apply principles of hazardous material management, including identification, handling, disposal, and emergency response; ensuring safety and regulatory compliance.	Avit 376	Final Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
Demonstrate a wide breadth of knowledge in the area of safety and accident investigations.	Avit 208 Avit 314	Final Exam Final Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
Demonstrate knowledge of the implications operational environments have on management and safety decision-making.	Avit 407 Avit 443	Block Exams Final Exam Table Top Exercise Assignment	Students will average 80 percent on the identified assignments across all the course(s) listed.

4.5.11 Relationship of Aviation Studies Student Learning Outcomes to Aviation Courses Required in Major

Outcome\Objective	Avit. 100	Avit. 103	Avit. 105	Avit. 126	Avit. 208	Avit. 250	Avit. 276	Avit. 311	Avit. 312	Avit. 313	Avit. 328	Avit. 350	Avit. 402	Avit. 403	Avit. 405	Avit. 407	Avit. 408	Avit. 412	Avit. 485
AABI General Outcomes																			
a. Apply mathematics, science, and applied sciences to aviation-related disciplines				I					P			P		P	P	E			E
b. Analyze and interpret data	I	I		I				P	P							E	E		E
c. Work effectively on teams				I				P	P		P	E						E	
d. Make professional and ethical decisions				I	I	P	P		P				P					E	
e. Communicate effectively, using written communication skills appropriate to aviation-related disciplines				I			I		P	P				P	P	P	E		E

Aviation Department Assessment Plan

Outcome	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
f. Communicate effectively, using oral communication skills appropriate to aviation-related disciplines		I		P						P		E						
g. Explain the value of and need for life-long learning in aviation careers				I								P						E
h. Use the techniques, skills, and modern technology necessary for professional practice in aviation;				I				P				P		E	E	E		E
i. Identify and solve problems	I	I		I			P	P							E	E		E
j. Apply knowledge of sustainability to aviation issues.				I			P	P		P	P						E	
k. Describe the professional attributes, requirements for certifications, and planning applicable to aviation careers;				I	I	I	P		P			P					E	
l. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.				I			P		P	P				E	E	E	E	E
m. Evaluate aviation safety and the impact of human factors on safety;		I		I							I	E						
n. Discuss the impact on aviation operation of international aviation law, including applicable International Civil Aviation Organization (ICAO) or other international standards and practices; and applicable national aviation law, regulations and labor issues.				I								P						E

Aviation Department Assessment Plan

Outcome\Objective	Avit. 100	Avit. 103	Avit. 105	Avit. 126	Avit. 208	Avit. 250	Avit. 276	Avit. 311	Avit. 312	Avit. 313	Avit. 328	Avit. 350	Avit. 402	Avit. 403	Avit. 405	Avit 407	Avit 408	Avit. 412	Avit. 485
o. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System;				I					P				P		E	E	E		E
p. Discuss the impact of meteorology and environmental issues on aviation operations.	I	I		I				P	P								E	E	E
Aviation Studies SLOs																			
Be able to demonstrate strong critical thinking and communication skills.									I				P	P	P	P	E	E	E
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating within multiple aviation entities.		I	I	I	I	I	P	P	P	P	P	P					E	E	E
Be able to demonstrate a wide breath of knowledge in the area of aviation safety or business		I	I	I	I	I	P	P	P	P	P	P	E	E	E	E	E	E	E
Knowledge of professionalism and ethics as it relates to the field of aviation.	I				I	I	P		P								E	E	E

Aviation Department Assessment Plan

4.5.11.1 Aviation Studies Student Learning Outcomes in Relationship to AABI General and Aviation Core

AABI General and Aviation Core Learning Outcomes	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI m	AABI n	AABI o	AABI p
Be able to demonstrate strong critical thinking and communication skills.	X	X	X	X	X	X		X	X	X			X			X
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating within multiple aviation entities.	X	X	X	X				X	X	X	X	X	X	X	X	X
Be able to demonstrate a wide breath of knowledge in the area of aviation safety or business	X	X	X	X				X	X	X	X	X	X	X	X	X
Knowledge of professionalism and ethics as it relates to the field of aviation.			X	X			X	X		X			X			

4.5.12   Aviation Studies Evidence Collection Chart

Aviation Studies SLO	Courses	Evidence (Assignments)	Desired Outcome
Be able to demonstrate strong critical thinking and communication skills.	Avit 485	Interdisciplinary Group Presentation	Students will average 80 percent on the identified assignments across all the courses listed.
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating within multiple aviation entities.	Avit 105	Final Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 126	Final Exam	

Aviation Department Assessment Plan

Be able to demonstrate a wide breath of knowledge in the area of aviation safety or business	Avit 208	Final Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 408	Semester Project	
Knowledge of professionalism and ethics as it relates to the field of aviation.	Avit 412	Final Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
	Avit 485	Interdisciplinary Group Presentation	

4.5.13   Relationship of Aviation Management Student Learning Outcomes to Aviation Courses Required in Major

Outcome\Objective	Avit. 100	Avit. 103	Avit. 126	Avit. 208	Avit. 250	Avit. 311	Avit. 403
Aviation Management SLOs							
Demonstrate knowledge of management theories and practices as they apply to a global market.							X
Demonstrate Knowledge of aviation management principles, including airport operations, airline management, air traffic control, aviation safety, aviation security, and aviation economics.		X	X	X	X	X	
Demonstrate knowledge of the regulatory environment governing aviation, including federal, state, and international regulations.		X	X	X			X

Aviation Department Assessment Plan

4.5.14 Aviation Management Evidence Chart

Aviation Management SLO	Courses	Evidence (Assignments)	Desired Outcome
Demonstrate knowledge of management theories and practices as they apply to a global market.	Mgmt 202		Students will average 80 percent on the identified assignments across all the courses listed.
Demonstrate Knowledge of aviation management principles, including airport operations, airline management, air traffic control, aviation safety, aviation security, and aviation economics.	Avit 103		Students will average 80 percent on the identified assignments across all the courses listed.
	Avit 311		
Demonstrate knowledge of the regulatory environment governing aviation, including federal, state, and international regulations.	Avit 403		Students will average 80 percent on the identified assignments across all the course(s) listed.

4.5.15 M.S. & Ph.D. Student Learning Outcomes to Aviation Courses Required in Major

Outcome\Objective	Avit. 501	Avit. 502	Avit. 503	Avit. 504	Avit. 505	Avit. 506	Avit. 507	Avit. 510	Avit. 511	Avit. 512	Avit. 513	Avit. 514	Avit. 515	Avit. 516	Avit. 517	Avit 518	Avit 520	Avit. 521	Avit. 522	Avit 523	Avit. 524	Avit. 525	Avit. 526	Avit. 595	Avit. 998	Avit. 999
AABI General Outcomes																										
a. An ability to apply knowledge of mathematics, science, and applied sciences			X	X	X	X																		X	X	X
b. An ability to analyze and interpret data			X	X	X	X																		X	X	X
c. An ability to function on multi-disciplinary teams																										

Aviation Department Assessment Plan

Outcome\Objective	Avit. 501	Avit. 502	Avit. 503	Avit. 504	Avit. 505	Avit. 506	Avit. 507	Avit. 510	Avit. 511	Avit. 512	Avit. 513	Avit. 514	Avit. 515	Avit. 516	Avit. 517	Avit 518	Avit 520	Avit. 521	Avit. 522	Avit 523	Avit. 524	Avit. 525	Avit. 526	Avit. 595	Avit. 998
d. An understanding of professional and ethical responsibility	X																						X	X	X
e. An ability to communicate effectively, including both written and verbal communication skills	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
f. A recognition of the need for, and an ability to engage in, life-long learning	X																						X	X	X
g. A knowledge of contemporary issues	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
h. An ability to use the techniques, skills, and modern technology necessary for professional practice	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
i. An understanding of the national and international aviation environment	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
j. An ability to apply pertinent knowledge in identifying and solving problems.	X	X	X	X																	X	X	X	X	X
k. Apply knowledge of business sustainability to aviation issues	X	X	X	X																	X	X	X	X	X
AABI Core Outcomes																									
Knowledge of aircraft design, performance, operating characteristics, and maintenance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Knowledge of national and international aviation law, regulations, labor relations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Aviation Department Assessment Plan

Outcome\Objective	Avit. 501	Avit. 502	Avit. 503	Avit. 504	Avit. 505	Avit. 506	Avit. 507	Avit. 510	Avit. 511	Avit. 512	Avit. 513	Avit. 514	Avit. 515	Avit. 516	Avit. 517	Avit. 518	Avit. 520	Avit. 521	Avit. 522	Avit. 523	Avit. 524	Avit. 525	Avit. 526	Avit. 595	Avit. 998	
Knowledge of airports, airspace, and air traffic control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Knowledge of meteorology and environmental issues	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Knowledge of aviation safety and human factors	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Knowledge of attributes of an aviation professional, career planning, and certification	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
M.S. & Ph.D. SLOs																										
Students will apply skills learned in statistics and research methods courses to design a research question and conduct the appropriate research to address a problem.			X	X	X	X																		X	X	X
Students will apply the appropriate theories learned in their coursework to a research problem.	X			X																				X	X	X
Students will synthesize gathered information and use there analytical skills to develop possible solutions to a particular problem.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Students will complete either a thesis or an independent study project which will demonstrate their desire and ability to increase knowledge and analyze information with a high-level of skill.																								X	X	X

Aviation Department Assessment Plan

Students will realize that being a professional requires a continual drive to develop and update an individual's skill-set.	X																				X	X	X
Students will be able to write at an advanced level.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Students will be able to effectively present their ideas using a variety of media.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Students will be able to critically think, analyze and evaluate all types of information available in today's global society.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

4.5.15.1 M.S. & Ph.D. Student Learning Outcomes in Relationship to AABI General and Aviation Core

AABI General and Aviation Core Learning Outcomes	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k		AABI 1	AABI 2	AABI 3	AABI 4	AABI 5	AABI 6
Students will apply skills learned in statistics and research methods courses to design a research question and conduct the appropriate research to address a problem.	X		X															
Students will apply the appropriate theories learned in their coursework to a research problem.									X				X					
Students will synthesize gathered information and use there analytical skills to develop possible solutions to a particular problem.		X												X	X	X	X	X

Aviation Department Assessment Plan

SLO																					
Students will complete either a thesis or an independent study project which will demonstrate their desire and ability to increase knowledge and analyze information with a high-level of skill.						X	X		X	X											
Students will realize that being a professional requires a continual drive to develop and update an individual's skill-set.			X		X																
Students will be able to write at an advanced level.				X																	
Students will be able to effectively present their ideas using a variety of media.																					
Students will be able to critically think, analyze and evaluate all types of information available in today's global society.																					

4.5.16 M.S. & Ph.D. Evidence Collection Chart

M.S. & Ph.D. Aviation SLO	Courses	Evidence (Assignments)	Desired Outcome
Goal 1: Develop aviation professionals who use their technical and theoretical skills to solve problems within the aviation industry.			
Students will apply skills learned in statistics and research methods courses to design a research question and conduct the appropriate research to address a problem.	Avit 503 – Statics	Final Project	85% Average
	Avit 504 – Research Methods	Final Project	
Students will apply the appropriate theories learned in	Avit 595 – Capstone	Final Project	85% Average

Aviation Department Assessment Plan

their coursework to a research problem.	Avit 998/999 – Thesis/Dissertation	Thesis/Dissertation	
Students will synthesize gathered information and use their analytical skills to develop possible solutions to a particular problem.	Avit 595 – Capstone	Final Project	85% Average
	Avit 998/999 – Thesis/Dissertation	Thesis/Dissertation	

Goal 2: Develop a student's higher-order thinking abilities and instill a quest for life-long learning.

Students will complete either a thesis or an independent study project which will demonstrate their desire and ability to increase knowledge and analyze information with a high-level of skill.	Avit 998/999 – Thesis/Dissertation	Thesis/Dissertation	85% Average
Students will realize that being a professional requires a continual drive to develop and update an individual's skill-set.	Avit 595 – Capstone	Final Project	85% Average

Goal 3: Develop a scholarly set of skills that will allow the student to function in a professional manner.

Students will be able to write at an advanced level.	Avit 998/999 – Thesis/Dissertation	Thesis/Dissertation	85% Average
Students will be able to effectively present their ideas using a variety of media.	Avit 595 – Capstone	Final Project	85% Average
Students will be able to critically think, analyze and evaluate all types of information available in today's global society.	Avit 595 – Capstone	Final Project	85% Average
	Avit 998/999 – Thesis/Dissertation	Thesis/Dissertation	

Aviation Department Assessment Plan

4.6   A<small>SSESSMENT OF</small> L<small>EARNING</small> O<small>UTCOMES</small>

The assessment of learning outcomes is an ongoing process, data is collected and analyzed continuously throughout the aviation department and used to increase student learning. The following techniques are used to gather both direct and indirect feedback on student learning.

4.6.1   Course Reports:

At the end of every academic year the course prime is responsible for filling out a Course Report. The report, along with evidence to support the measurement of outcomes are placed on a secure UND internal network drive. Data will be aggregated and presented to the faculty on an annual basis.

Due: May of every calendar year.
Closing the Loop: Annual Assessment Workshop.

4.6.2   Aviation Student Survey:

Aviation students are surveyed every other year during the fall semester. This survey is administered in 'gateway' classes to ensure the largest amount of responses.

Due: Every 2-Years (odd years)
Closing the Loop: Bi-Annually

4.6.3   Alumni Survey:

Due: Every 5-years
Closing the Loop: Every 5-Years

4.6.4   Aviation Alumni Board Meetings:

Every fall semester the Aviation Alumni Board meets during homecoming week at UND. The Assessment Committee will organize a session to discuss the department's current programming and what the board has found to be important. Most of the Aviation Alumni Board members work in the aviation industry.

Due: Bi-Annual meetings
Closing the Loop: action items are tracked with follow up at subsequent alumni board meetings.

Aviation Department Assessment Plan

4.6.5   Program Review:

To ensure the Aviation Department's degree programs remain current and meet industry needs, a six step systematic program review will be conducted annually for selected degree programs.

Due: 1 Program annually based on the schedule.
Closing the Loop: Each program review is recoded, follow-up is conducted every five-years per the program review schedule.

4.7   ASSESSMENT SCHEDULE

4.7.1   Techniques Schedule by Month

Activity\Month	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Course Reports					X							
Aviation Student Survey										X		
Alumni Survey										X		
Alumni Board Meetings				X						X		
Program Reviews	X											

4.7.2   Techniques Schedule by Year

Outcomes	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Course Reports	X	X	X	X	X	X	X	X	X	X
Student Survey	X		X		X		X		X	
Alumni Survey	X				X				X	
Alumni Board Meetings	X	X	X	X	X	X	X	X	X	X
Program Reviews	X	X	X	X	X	X	X	X	X	X

Aviation Department Assessment Plan

4.7.3   Program Review Schedule

	UAS	ATM	Commercial Aviation (Fixed Wing & Helicopter)	Aviation Mgmt, Graduate	Aviation Safety, Aviation Studies
2023				X	
2024					X
2025	X				
2026		X			
2027			X		
2028				X	
2029					X

4.8   CURRICULUM

4.8.1   Department Level:

The aviation department has a curriculum committee made up of members of the faculty and flight line staff. Curriculum is continually evaluated using a systematic program review and faculty PODS. For each discipline in aviation, a group of faculty members are assigned to seek feedback externally and review curriculum internally and recommend changes based on the feedback received. All recommended changes are presented to the curriculum committee to be voted on. Changes out of the curriculum committee are presented to the faculty as a whole and voted on. Changes that have an affirmative vote are presented to the university curriculum committee.

POD	Focus
Commercial	The commercial POD focuses on upper division courses that only commercial aviation majors will be taking.
Air Traffic Control	Focus is on ATC major specific courses.
UAS	Focus is on UAS program specific courses.
Primary Flight	Primary flight focuses on all fixed wing and rotorcraft flight courses with the exceptions of the CRJ transition course, which is part of the commercial focus.
Aviation Core	The aviation core focuses on common courses required for all of the degree programs that meet Aviation Accreditation Board International (AABI) core requirements.

4.8.2   University Level:

The University of North Dakota Faculty Senate has a curriculum committee which reviews all course and program change requests. The university curriculum committee follows a three-stage approval process which is processed online and can be reviewed on the university-senate website

Program Review

To ensure the Aviation Department's degree programs remain current and meet industry needs, a six step systematic program review will be conducted annually for selected degree programs. The program review process has two main goals:

1) Ensure degree and curriculum offerings are meeting student and industry needs.
2) Review degree program "program outcomes" to maintain alignment with curriculum offerings.

The program review process is broken down into six steps:

Stage	Description
1	Program goals, mission, and outcomes review
2	Internal and external feedback. Internal review will consist of surveys and student focus groups. External review will focus on gaining industry and alumni feedback.
3	Review Feedback, solidify outcomes
4	External review of outcomes
5	Curriculum Changes – create a 1 year, 3 year, and 5 year curriculum plan that tasks individuals and sets overall goals to assess the changes made.
6	Closing the loop – review annually. This is the most important step, it inform internally and externally what was done with the information, and if it's working (Bresciani, 2006).

The degree programs will be reviewed on the following schedule:

Year	Program(s)
1	UAS
2	ATM
3	Commercial Aviation (Fixed Wing & Helicopter)
4	Aviation Management, Graduate Degree's
5	Aviation Safety & Operations/ Aviation Studies

5 STUDENTS AND STUDENT SUPPORT SERVICES

The Department of Aviation has over 1500 students spread across five undergraduate programs and two graduate programs. The students in these programs come from all across the United States and from other countries across the world. The faculty and staff within the Department of Aviation are committed to providing these students with the practical skills and knowledge needed to excel in the aviation industry.

5.1 STUDENT ASSESSMENT

Measurement:

1) Retention
2) Graduation Rates
3) Job Placement (Initial and 5 years out)

Student assessment data can be found on the University Analytics & Planning site. This data is provided by Institutional Research and offers internal, UND public, and North Dakota University System (NDUS) access. The Dean, department chair, assistant chairs, and faculty utilize the data to track and guide decision making on activities that will maintain and increase retention, graduation rates, and job placement. Along with data from Institutional research the department uses multiple surveys and the UND Aerospace Foundation to track post-graduation job placement. The schedule for these surveys can be found in section 4.8.

6 FACULTY AND STAFF

The Department of Aviation has over 40 faculty members and 200 staff employed to teach, advise, and assist over 1500 aviation students in 5 undergraduate majors and two graduate programs. The faculty and staff are a diverse group that helps the department, college, and university achieve the individual and collective mission of preparing well-rounded students who are prepared to enter society and be productive professionals. The department chair along with the director of flight operations continually monitors staffing levels to ensure all courses and training are sufficiently covered.

6.1 EVALUATION OF FACULTY AND STAFF

Faculty and Staff are evaluated on an annual basis based on the Aviation Departments Faculty and Staff Evaluation Policies.

7   FACILITIES, EQUIPMENT, AND SERVICES

The Department of Aviation is the largest program housed within the John D. Odegard School of Aerospace Sciences (JDOSAS). The department, school, and university pride themselves on having well maintained buildings with state-of-the-art equipment that promotes faculty-student interaction and learning. The department has two committees that continually maintain and monitor the Aviation Program and JDOSAS building, laboratory, flight equipment, and library needs.

7.1   AVIATION LEADERSHIP COMMITTEE (ALC)

The purpose of the ALC is to provide communication within and across departments and to ensure buildings and flight equipment are up to date and well maintained. The committee consists of:

1) The Dean of JDOSAS
2) Associate Dean of JDOSAS
3) Fiscal Affair Representative
4) Departmental Chairs
5) CEO of UND Aerospace Foundation
6) Director of Aerospace Network
7) Director of Flight Operations
8) Director of Safety

7.2   FLEET PLANNING COMMITTEE

Due to the large fleet size and financial impact a specific fleet planning committee was formed to oversee flight equipment acquisition and replacement. The generally operates on a plan that completely replaces the training fleet every seven years. At year six during this cycle the committee convenes to discuss and solicit aircraft bids and based on a multitude of factors selects aircraft fleet makeup.

Aviation Department Assessment Plan

8 AVIATION SAFETY CULTURE AND PROGRAM

8.1 SAFETY MANAGEMENT SYSTEM

The Aviation Department views safety as the highest priority, and it starts from the top moving down through administration, faculty, all the way down to the students. The starting point safety for the department is our Safety Management System (SMS), the plan centers on a statement from our Dean:

> *All endeavors involve an element of risk, aviation notwithstanding. While we recognize the inherent risks in aviation, we are committed to ensuring that risks are reduced to the lowest practical level. UND Aerospace does not accomplish this by words in a mission statement or safety posters on a wall, but by the daily efforts of the students, staff, administration, and faculty of UND Aerospace.*

> *I pledge, as Accountable Executive of UND Aerospace, that I will encourage and support anyone reporting a safety hazard or concern through the WBAT safety reporting system. UND's **Reporting Culture** encourages anyone involved in a UND operation to report any observed safety hazard or concern before that hazard puts any UND operation at risk of an accident or serious incident.*

> *At UND Aerospace, safety is **EVERYONE'S** responsibility. To that end, I empower management, staff, and students with the authority to intervene when any perceived condition exists that will put any UND operation in jeopardy by clearly saying **"KNOCK IT OFF."** Any person hearing the words **"KNOCK IT OFF" SHALL** stop what they are doing and comply, regardless of position within the organization. The **"KNOCK IT OFF"** program also rewards individuals who exhibit a high degree of professionalism in abnormal situations and individuals that make significant contributions to the safety program at UND.*

> *Working together we will build an atmosphere of trust for all UND personnel. Just Culture demands that UND personnel who participate in the **Reporting Culture** and **"KNOCK IT OFF"** program receive positive recognition for their efforts in promoting safety culture at UND.*

> *As the Accountable Executive, I have committed to publishing a Code of Ethics statement in the SMS manual. The UND Aerospace Code of Ethics is a set of principles designed to guide all aerospace students, staff, administration and faculty in emphasizing that safety is our highest priority. The Code of Ethics demands that all students, faculty, and staff conduct aviation operations honestly, with integrity, and with safety at the core of all decision making. The Safety Policy and Code of Ethics statement will be reviewed annually by Executive Management to ensure it remains relevant and appropriate to the organization.*

> *UND Aerospace recognizes that errors in aviation are inevitable and we endeavor to learn from our mistakes. Conversely, willful or intentional violations will not be tolerated. All students, staff, administration, and faculty understand and agree on acceptable and unacceptable behavior using the SMS manual, UND Safety Policies and Procedures (SP&P), Standardization Manuals (Stan Man), Aircraft Operating Limitations (POH), Federal Aviation Regulations (FAR), and Airman Certification Standards (ACS) as guides.*

> *Just Culture makes a distinction between errors and violations. All UND personnel can have the confidence that, while they will be held accountable for their actions, the organization will treat them fairly.*

> *As members of the UND Aerospace community, let us continue working together to ensure an environment where safety is not only our goal and commitment, but the foundation underlying all of our decisions and actions.*

Our safety culture is driven by the departments SMS plan, which was created with collaboration by administration, faculty, and students. The work put into creating the plan shows, as administration, faculty, and students understand and use the plan to create "our culture of safety." All procedures and annual safety program review are contained in our "Safety Management System" document that can be viewed online through thr flight lab Blackboard site. The departments SMS functions on the four pillars of SMS, 1) Safety Policy, 2) Safety Risk Management, 3) Safety Assurance, and 4) Safety Culture and Promotion.

8.2 ASSESSMENT

The Department of Aviation continuously assesses the safety culture and program through the SMS system. All policies and procedures can be found in the current edition of the Safety Management Systems Manual.

9 RELATIONS WITH INDUSTRY

UND Aerospace understands and values the relationship it has with industry and alumni. Industry feedback is the driving force behind keeping the aviation programs fresh, relevant, and serving the needs of industry.

9.1 UND AEROSPACE ALUMNI ADVISORY BOARD (AAAB)

The UND Aerospace Alumni Advisory Board was created by the school's first Dean and namesake, John D. Odegard. It was through his vision and leadership that UND Aerospace became a world leader in aviation education. As Dean Odegard was building the school's legacy, he realized the importance of maintaining a link between current students, graduates, and professors. It was in that spirit that the Aerospace Alumni Advisory Board was launched. From those early days when UND Aerospace had only a handful of graduates to the tens of thousands of alumni today, the AAAB has worked to help maintain the success of the John D. Odegard School of Aerospace Sciences.

The UND Aerospace Alumni Advisory Board consists of over 40 graduates who work to support and promote the John D. Odegard School of Aerospace Sciences. **These volunteers play an integral part in the accreditation process of the University by advising faculty on curriculum.** In addition, the Board provides undergraduates with insights into current industry trends and information on what they can expect after graduation. This is accomplished through guest speaking opportunities and participating in the Senior Capstone course. The AAAB also sponsors two scholarships each year to help outstanding underclassmen attain their goals. The backbone of the Board is its diverse membership, which varies by year of graduation and field of expertise. Some members are recent graduates who are just embarking on their first jobs in the aviation industry, and some members are seasoned veterans with over 30 years of work experience. It is this wide range of membership that allows the AAAB to provide unique and relevant information to the University through its numerous meetings and interactions on campus.

9.2 ASSESSMENT

The department of aviation continuously engages industry to stay up to date on trends. The AAAB is the department's primary tool to bring faculty and industry together. The board meets in spring and fall. The fall meeting is always conducted in Grand Forks during homecoming week, the spring meeting location varies, but is usually held at an industry location.

Meeting minutes are recorded and filed on an internal assessment network drive. The department of aviation created PODS designed to engage alumni and industry in five core areas:

1) Commercial Aviation
2) Air Traffic Control
3) Unmanned Aircraft Systems
4) Primary Flight
5) Aviation Core

During alumni and industry events the PODS teams gather information that is brought back to faculty for discussion and inclusion – if warranted – into the aviation program.

10 DIVERSITY, EQUITY, AND INCLUSION (DEI)

UND Aerospace values diverse peoples, perspectives and ideas, and we support actions that are inclusive of all members of the UND community and promote fair and equitable living, learning and working environments. We value differences between people and promote the benefits of recruiting diverse students and employees by establishing programs that help them succeed at UND

10.1 COMMITMENT TO DIVERSITY, EQUITY, AND INCLUSION

Creating more just and equitable opportunities allows all people to realize their potential—one of the great goals of any public university. Students who are indigenous, non-traditional, rural, military-affiliated, people of color, international, queer and trans, first-generation, historically marginalized, people with disabilities—and the list goes on—deserve the same access and opportunities as everyone else, whether in-person or online. The same can be said for UND's diverse employees, alumni and community members. Everyone deserves the unquestioned right to have their voices heard, for free speech has been—and continues to be—the cornerstone of discourse on our campus.

UND Aerospace is committed to building and maintaining an inclusive culture that recognizes diverse perspectives and promotes equitable opportunities. This is done in the following ways:

1. Offer core classes that enable students to value and appreciate both our collective identity as humans and the tremendous variation within our humanity.
2. Encourage faculty to utilize inclusive teaching methods, high impact practices, professional development programs and opportunities to understand diverse populations and meet their changing needs.
3. Promote and support a wide array of student groups within the Aviation Department.
4. Work with industry partners to showcase the importance of DEI in the aviation industry.
5. Set yearly departmental goals for improving DEI.
6. Maintain departmental policies that support active student, staff, and faculty development regarding DEI.

10.2 ASSESSMENT

The Department of Aviation utilize the following techniques pe our assessment schedule to assess DEI on a consistent basis. The assessment schedule can be found in section 4.8.

- Student Survey
- Alumni Survey
- Program Reviews
- Student Organization Focus Groups
- Industry Advisory Board Feedback

All evidence provided by the techniques listed above is collected by the Assistant Chair of Assessment. The evidence is then shared with faculty at a designated faulty meeting, and utilized to assess if the DEI goals from the previous year were met, and to determine DEI specific goals for the upcoming year.

11 AVIATION DEPARTMENT GOALS

11.1 GOALS

11.1.1 Students and Student Support Services

Goal	Metric	Closing the Loop
Continue work towards managing student enrollment to correspond with departmental resources.	Binary	
Develop grant funding for two students to present at professional aviation conferences in 2026	Binary	

11.1.2 Program Mission and Educational Goals

Goal	Metric	Closing the Loop
Assess each programs Mission Statements during Program Review process.	Subjective wording changes if needed.	
Assess Educational Goals every 5-Years or as needed.	5-Years.	

11.1.3 Student Learning Outcomes

Goal	Metric	Closing the Loop
Assess Student Learning Outcomes annually by collecting Course Reports and analyzing aggregated assignment scores.	80 percent aggregated (based on tables in Section 4).	
Align Aviation Department Assessment Plan with the new AABI curriculum.	Update all tables and charts in the 25/26 plan.	

11.1.4 Curriculum

Goal	Metric	Closing the Loop
Evaluate 1 program annually based on the Program Review Schedule.	Annually per the schedule.	
Establish a plan and schedule to review the core and elective aviation classes.	Plan and schedule developed by the Curriculum Committee and approved by the Aviation Faculty by fall 2026.	

11.1.5 Faculty and Staff

Goal	Metric	Closing the Loop
Fill open faculty and staff positions.	Binary	
Explore hiring student workers to support the Aviation Department.	Binary	

11.1.6 Facilities, Equipment, and Services

Goal	Metric	Closing the Loop
Continue to evaluate Aircraft and Simulator needs.	Annual fleet committee review	
Explore custodial options for faculty offices.	Binary	
Identify one faculty member to research the current state of VR industry and how it can be utilized by UND.	Identify one faculty member	

11.1.7 Aviation Safety Culture and Program

Goal	Metric	Closing the Loop
Transition to a mobile application for safety notification/ERS	Mobile application fully implemented by fall 2026	
Make safety survey data more available.	Develop a dash board by fall 2026	

Aviation Department Assessment Plan

11.1.8 Relations with Industry

Goal	Metric	Closing the Loop
Meet twice annually with our Alumni Board.	Meet twice annually.	

11.1.9 Diversity, Equity, and Inclusion (DEI)

Goal	Metric	Closing the Loop
Determine a more impactful selection process for the Aviation LLC to better accommodate under represented populations.	Receive options from housing on the selection process.	