Assessment Plan: Department of Aviation University of North Dakota



John D. Odegard School of Aerospace Sciences 2024-2025

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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.

3.1 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

Creating graduates that harbor excellent aviation technical abilities

Produce future aviation professionals that possess the greatest knowledge and technical abilities possible prior to entering the aviation community.

Strive for human excellence through the use of a liberal education

Provide students with a well-rounded educational experience that enhances communication, team work, and leadership skills while fostering an appreciation for other cultures.

Instill characteristics that will fully develop our students' human potential

By inspiring students to pursue life-long learning, it is our goal to prepare students with an understanding and acceptance to changes or challenges they may face in the aviation industry.

Promote a solid foundation for the continued utilization of technology

Due to ever changing technology demands in the aviation industry we provide a foundation of knowledge for current technology use and future applications.

Provide skills to build and promote a culture of safety in the aerospace industry

Emphasize our vitally important role in the transfer of new information and the building of a culture of safety throughout the aviation communities.

3.5 Program Mission Statements

Commercial Aviation Program Mission

The mission of the Department of Aviation's undergraduate program in Commercial Aviation 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 Unmanned Aircraft System 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 research, education, and training endeavors to enhance opportunities for students and faculty, and to ensure a perpetual state-of-the-art UAS 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 GENERAL STUDENT LEARNING OUTCOMES

- a. apply mathematics, science, and applied sciences to aviation-related disciplines;
- b. analyze and interpret data;
- c. work effectively on multi-disciplinary and diverse teams;
- d. make professional and ethical decisions;
- e. communicate effectively, using both written and oral communication skills;
- f. engage in and recognize the need for life-long learning;
- g. assess contemporary issues;
- h. use the techniques, skills, and modern technology necessary for professional practice;
- i. assess the national and international aviation environment;
- j. apply pertinent knowledge in identifying and solving problems;
- k. apply knowledge of business sustainability to aviation issues.

4.2 AABI CORE STUDENT LEARNING OUTCOMES

- 1. Describe the professional attributes, requirements or certifications, and planning applicable to aviation careers.
- 2. Describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems.
- 3. Evaluate aviation safety and the impact of human factors on safety.
- 4. 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.
- 5. Explain the integration of airports, airspace, and air traffic control in managing the National Airspace System.
- 6. Discuss the impact of meteorology and environmental issues on aviation operations.

4.3 ND ESSENTIAL STUDIES (GOALS) OUTCOMES

The following matrix demonstrates how the AABI General 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 General Outcomes						
a. An ability to apply knowledge of mathematics, science, and applied sciences						
b. An ability to analyze and interpret data						
c. An ability to function on multi-disciplinary and diverse teams						
d. An understanding of professional and ethical responsibility						
e. An ability to communicate effectively, including both written and verbal communication skills						
f. A recognition of the need for, and an ability to engage in, life-long learning						
g. A knowledge of contemporary issues						
h. An ability to use the techniques, skills, and modern technology necessary for professional practice						
i. An understanding of the national and international aviation environment						
j. An ability to apply pertinent knowledge in identifying and solving problems.						
k. An ability to apply knowledge of business sustainability to aviation.						

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

4.4 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.

4.4.1 Commercial Aviation 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.

4.4.2 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 Air Traffic Management in an integrated setting
- Knowledge and ability to apply enroute radar operations

4.4.3 Unmanned Aircraft System Student Learning Outcomes

- 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.
- Be able to demonstrate airmanship commensurate with applicable professional licensure.
- 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 operations.
- Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS operations.
- Be familiar with computer technologies and processes associated with UAS operations to include programming, data storage and security, and networking.

4.4.4 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.

4.4.5 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.

4.4.6 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.

4.4.7 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.

4.5 AVIATION OUTCOMES TO PROGRAM EDUCATIONAL GOALS

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

4.5.1 AABI General Outcomes in Relation to Program Educational Goals

	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.
AABI General Outcomes					
a. An ability to apply knowledge of mathematics, science, and applied sciences					
b. An ability to analyze and interpret data					
c. An ability to function on multi- disciplinary teams					
d. An understanding of professional and ethical responsibility					
e. An ability to communicate effectively, including both written and verbal communication skills					
f. A recognition of the need for, and an ability to engage in, life-long learning					
g. A knowledge of contemporary issues					
h. An ability to use the techniques, skills, and modern technology necessary for professional practice					
i. An understanding of the national and international aviation environment					
j. An ability to apply pertinent knowledge in identifying and solving problems.					
k. apply knowledge of business sustainability to aviation issues					

4.5.2 AABI Core Outcomes in Relation to Program Educational Goals

	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.
AABI Core Outcomes					
Knowledge of aircraft design, performance, operating characteristics, and maintenance Knowledge of national and					
international aviation law and regulations					
3. Knowledge of airports, airspace, and air traffic control					
4. Knowledge of meteorology and environmental issues					
5. Knowledge of aviation safety and human factors					
6. Knowledge of attributes of an aviation professional, career planning, and certification					

4.5.3 Commercial Aviation SLOs in Relation to Program Educational Goals

	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.
Commercial Aviation 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, problemsolving 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.					

4.5.4 Air Traffic Management SLOs in Relation to Program Educational Goals

	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.
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 Air					
Traffic Management in an integrated					
setting.				L	
Knowledge and ability to apply enroute					
radar operations					

4.5.5 UAS 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.
Unmanned Aircraft System					
Operations 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.					
Be able to demonstrate airmanship commensurate with applicable professional licensure.					
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 operations.					
Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS operations.					
Be familiar with computer technologies and processes associated with UAS operations to include programming, data storage and security, and networking.					

4.5.6 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.					
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.					

4.5.7 Aviation Safety and Operations 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 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 have on management and safety decision-making.					

4.5.8 Aviation Studies 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 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.					

4.5.9 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.			
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.			

- 4.6 RELATIONSHIP OF AABI GENERAL, AABI CORE, AND STUDENT LEARNING OUTCOMES (SLOS) TO AVIATION COURSES REQUIRED IN MAJOR
- 4.6.1 Relationship of Commercial Aviation 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. An ability to apply knowledge of mathematics, science, and applied sciences		X				Х			Х	Х	X	Х	X					Х	Х		Х	Х		Х	
b. An ability to analyze and interpret data		X	X		Х	Х	Х			Х	X	Х	X	Х		X	Х	Х	Х			Х	X	Х	Х
c. An ability to function on multi-disciplinary teams					Х					Х				Х		X		Х					X	X	Х
d. An understanding of professional and ethical responsibility			X	Х	Х										Х	Х	Х		Х				Х	Х	Х
e. An ability to communicate effectively, including both written and verbal communication skills			Х	Х	Х			Х	Х			X	Х	Х	X	Х	Х	Х	X	Х	Х	Х	Х	X	Х
f. A recognition of the need for, and an ability to engage in, life- long learning				Х	Х								X			Х			Х		Х				Х
g. A knowledge of contemporary issues				Х	Х									Х	X	X	Х					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
i. An understanding of the national and international aviation environment				Х	X									Х	X	Х	X	X				X			х
j. An ability to apply pertinent knowledge in identifying and solving problems.		Х	X	X	Х	X	X			X	X	X	X		Х	X	X	Х	Х	Х	X	X		X	X
k. apply knowledge of business sustainability to aviation issues				X										X		X	X								X
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 Core Outcomes																									
Knowledge of aircraft design, performance, operating characteristics, and maintenance		X		Х					Х	Х	Х	Х	Х					X	Х		Х	X		X	
Knowledge of national and international aviation law, regulations, labor relations		Х		X			X		X			X			Х	X	X		Х						X
Knowledge of airports, airspace, and air traffic control		Х	X	Х			X							Х				Х	X						
Knowledge of meteorology and environmental issues		Х		Х		Х	Х							Х					Х	Х	X				Х
Knowledge of aviation safety and human factors		X		Х	X	X		X	X		X	X	X						X	Х	X		X	X	
Knowledge of attributes of an aviation professional, career planning, and certification	X	X	X	X								X					X		Х				Х	X	X

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
Commercial Aviation SLOs	'			'		`	_			'	'	'				'				'	'	'			
Be able to demonstrate					Х								Х					Х			Х	Х		Χ	
knowledge of the skills,																									
techniques, and procedures for																									l
safely operating turbine aircraft																									1
in commercial operations																									l
Be able to demonstrate		Х	Х		Х	Х	Х	Х	Х	Х		Х							Х	Х	Х	Χ	Х	Х	
knowledge of human																									
physiology, crew performance in																									
hostile and/or challenging																									
environments, applying																									
principles in operational,																									l
problem-solving scenarios.																									l
Knowledge of the skills,	Х			Х										Х	Х	Х	Х	Х							Х
techniques and procedures for																-									
managing aviation entities.																									1
Be able to demonstrate		Х				Х	Х			Х	Х	Х							Х	Х			Х		
knowledge, skills, techniques,																									1
and procedures for safe,																									1
professional, and ethical																									1
operation of non-turbine																									1
aircraft in commercial																									1
operations.																									1
Be able to demonstrate																			Х	Х					
professional and ethical																									
instructional knowledge and																									l
skills in single-engine VFR and																									
IFR flight.																									

4.6.1.1 Commercial Aviation 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
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating turbine aircraft in commercial operations	X	Х	Х	X	X			X	х	Х	х	Х	х	х	х	х	х
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		X		X	X
Knowledge of the skills, techniques and procedures for managing aviation entities.		Х	Х	Х	Х		Х	X	Х	Х	Х				Х	Х	Х
Be able to demonstrate knowledge, skills, techniques, and procedures for safe operation of non-turbine aircraft in commercial operations.	X	X	Х	X	X			X		X		Х	х	Х	Х	х	х
Be able to demonstrate instructional knowledge and skills in single-engine VFR and IFR flight.	Х	Х	Х	Х	Х	X		X		Х		X	Х		Х	Х	Х
Knowledge of the skills necessary to be a professional and ethical leader.		Х	X	Х	X	X	X	X	X	Х	X	X	Х	Х	Х		

4.6.2 Commercial Aviation Evidence Collection Chart

Commercial Aviation SLO	Courses	Evidence (Assignments)	Desired Outcome
Be able to demonstrate knowledge	Avit 327	Final Exam	Students will average 80 percent on
of the skills, techniques, and	Avit 421	Exam 1	the identified assignments across all
procedures for safely operating	Avit 428	Block 3 Exam	the courses listed.
turbine aircraft in commercial operations	Avit 480	MV Grade	
operations.			
Be able to demonstrate knowledge	Avit 250	Block 1 Exam	Students will average 80 percent on
of human physiology, crew	Avit 309	Final Exam	the identified assignments across all
performance in hostile and/or	Avit 430	LOFT Scenarios	the course(s) listed.
challenging environments, applying	Avit 480	LOE Grade	
principles in operational, problem-			
solving scenarios.			
Knowledge of the skills, techniques	Avit 402	Group Project/Discussion Questions	Students will average 80 percent on
and procedures for managing	Avit 405	Airline Simulation	the identified assignments across all
aviation entities.	Avit 407	Block 1 Exam	the course(s) listed.
Be able to demonstrate knowledge,	Avit 221	Block 4 Exam	Students will average 80 percent on
skills, techniques, and procedures		Final Stage Check	the identified assignments across all
for safe operation of non-turbine	Avit 222	Final Exam	the course(s) listed.
aircraft in commercial operations.	Avit 323	Final Stage Check	
	Avit 325		
	Avit 414		
	Avit 415		
Be able to demonstrate instructional	Avit 414	Final Exam	Students will average 80 percent on
knowledge and skills in single-engine	Avit 415	Final Stage Check	the identified assignments across all
VFR and IFR flight.	A 11 44 4	F: IG: GI I	the course(s) listed.
Knowledge of the skills necessary to	Avit 414	Final Stage Check	-
be a professional and ethical leader.	Avit 485	Case Study/Professionalism Activity	

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

Outcome\Objective																	
	100	103	105	126	208	250	260	261	362	363	402	403	464	465	468	469	470
	Avit. 100	Avit. 103	Avit. 105	Avit. 126	Avit. 208	Avit. 250	Avit. 260	Avit. 261	Avit. 362	Avit. 363	Avit. 402	Avit. 403	Avit. 464	Avit. 465	Avit. 468	Avit. 469	Avit. 470
AABI General Outcomes																	
a. An ability to apply			Х						Х					Х	Х	Х	Х
knowledge of mathematics,																	
science, and applied sciences																	
b. An ability to analyze and		Х	Х		Х		Χ				Х			X		Χ	
interpret data																	
c. An ability to function on					Х						Χ						
multi-disciplinary teams																	
d. An understanding of		X	X	X	Х				Х			Х		X	Х		
professional and ethical																	
responsibility																	
e. An ability to communicate		X	X	X	Х	X	X	X	X	X	X	X	X	X	X	X	X
effectively, including both																	
written and verbal																	
communication skills																	
f. A recognition of the need			Х	Х	Х									X			
for, and an ability to engage in,																	
life-long learning																	
g. A knowledge of				Х	Х						X	X		X			
contemporary issues																	
h. An ability to use the		Х	Х	Х	Х	Х	X	X	X	X	Х			X	Х	X	X
techniques, skills, and modern																	
technology necessary for																	
professional practice																	
i. An understanding of the			Х	Х	Х						X	Χ				X	X
national and international																	
aviation environment																	

j. An ability to apply pertinent		Х	Χ	Х	Х		Х	Х	Х	Х		Χ	Х	Х	Х	Х	Х
knowledge in identifying and																	
solving problems.																	
k. apply knowledge of business			X	X							X						
sustainability to aviation issues																	
Outcome\Objective	Avit. 100	Avit. 103	Avit. 105	Avit. 126	Avit. 208	Avit. 250	Avit. 260	Avit. 261	Avit. 362	Avit. 363	Avit. 402	Avit. 403	Avit. 464	Avit. 465	Avit. 468	Avit. 469	Avit. 470
AABI Core Outcomes																	
Knowledge of aircraft design,			Х	Х					Х								
performance, operating																	
characteristics, and																	
maintenance																	
Knowledge of national and			Χ	Χ								Χ					
international aviation law,																	
regulations, labor relations																	
Knowledge of airports,		Х		X			X	X	Х	Х	Х		Х	X	Х	Х	Х
airspace, and air traffic control																	
Knowledge of meteorology and			X	X			X				X					X	
environmental issues																	
Knowledge of aviation safety			X	X	X	X								X			
and human factors																	
Knowledge of attributes of an	X	Х	X	X					Х					X			
aviation professional, career																	
planning, and certification																	
Outcome\Objective	(~			~	•	•	_	~	_		~	_		~		
	Avit. 100	Avit. 103	Avit. 105	26	Avit. 208	Avit. 250	Avit. 260	Avit. 261	Avit. 362	Avit. 363	Avit. 402	Avit. 403	Avit. 464	Avit. 465	Avit. 468	Avit. 469	Avit. 470
	it.	it.	it.	t. 1	نِڊ	نِڊ	نِڊ	نِڊ	نِڊ	نے	نِب	it.	it.	نِ	نِب	نِب	نِڍ
	A	A	٩	Avit. 126	Ą	A	A	A	Ą	Ą	Ą	٩	A	Ą	Ą	Ą	À
Air Traffic Management																	
Outcomes																	
Knowledge of and the ability to		Χ	Χ				Х		Х				Χ	Х			Х
apply tower operations.					l				l	l	l				l	l	l

Knowledge of and the ability to apply radar operations.	Х				Х	X		X	X		X	Х
Knowledge of and the ability to apply non-radar operations.		Х								X	X	
Knowledge of the emerging industry and the ability to recognize and engage in lifelong learning.	х		Х						X			
Knowledge and ability to apply Air Traffic Management in an integrated setting.								X	X			Х

4.6.3.1 Air Traffic Management SLOs 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
Knowledge of and the ability to apply tower operations.	X	Х	Х	Х	Х			Х		Х	Х	Х	Х	Х	Х	Х	Х
Knowledge of and the ability to apply radar operations.	X	X	X	Х	X			X		X	Х	X	X		X	Х	
Knowledge of and the ability to apply non-radar operations.	X	X	X	Х	X			X		X			X		X	X	
Knowledge of the emerging industry and the ability to recognize and engage in life-long learning.		X				X	Х						X		X	X	Х
Knowledge and ability to apply Air Traffic Management in an integrated setting.	Х	Х	Х	Х	Х			X		X			Х		Х		
Knowledge and ability to apply enroute radar operations.	Х	Х	Х	Х	Х			Х		Х	Х	Х	Х	Х	Х	Х	Х

4.6.4 Air Traffic Management Evidence Collection Chart

Air Traffic Management SLO	Courses	Evidence (Assignments)	Desired Outcome
Knowledge of and the ability to	Avit 260	Practical Midterm	Students will average 80 percent on
apply tower operations.		Practical Final	the identified assignments across all
		Written Final	the courses listed.
	Avit 362	Practical Midterm	
		Practical Final	
		Written Midterm	
		Written Final	
	Avit 464	Practical Midterm	
		Practical Final	
		Written Midterm	
		Written Final	
	Avit 470	AT Basics Quizzes	
		AT Basics Written Final	
Knowledge of and the ability to	Avit 261	Practical Midterm	Students will average 80 percent on
apply radar operations.		Practical Final	the identified assignments across all
		Written Midterm	the course(s) listed.
		Written Final	
	Avit 363	Practical Midterm	
		Practical Final	
		Written Midterm	
		Written Final	
	Avit 464	Practical Midterm	
		Practical Final	
		Written Midterm	
		Written Final	
	Avit 470	Practical Midterm	
		Practical Final	
		Quizzes	
		AT Basics Written Final	
Knowledge of and the ability to	Avit 468	Midterm	Students will average 80 percent on
apply non-radar operations.		Final – Practical and Exam	the identified assignments across all
		Math Quiz	the course(s) listed.

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Knowledge of the emerging industry and the ability to recognize and engage in life-long learning.	Avit 260	Written Midterm Written Final	Students will average 80 percent on the identified assignments across all the course(s) listed.
Knowledge and ability to apply Air Traffic Management in an integrated setting.	Avit 464	Practical Midterm Practical Final 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 Evaluation Quizzes Final	Students will average 80 percent on the identified assignments across all the course(s) listed.

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

Outcome\Objective																								
	8	102	103	.26	208	221	22	238	239	240	Avit. 250	323	324	325	331	332	333	337	403	419	Avit. 430	438	450	485
	Avit. 100	<u>:</u>	Avit. 1	Avit 126	it. 2	it. 2	Avit. 222	it 2			it. 2	it. 3	it. 3	Avit. 3	it. 3	it. 3	Avit. 3	it 3	it. 4	it 4	it. 4	it 4		Avit. 4
	Ą	Avit.	₽	₽	Avit.	Avit.	₽	Avit	Avit	Avit	Ą	Avit.	Avit.	٩v	Avit.	Avit.	Ą	Avit	Avit.	Avit	A۷	Avit	Avit	٩
AABI General Outcomes																								
a. An ability to apply knowledge		Х				Х				Х		Х	Х	Х	Х	Х	Х					Х		
of mathematics, science, and																								
applied sciences																								
b. An ability to analyze and		Χ	Х		Х	Х	Х	Х		Х		Х	Χ	Х	X	Х	Х	Х		Х	Χ	Х		X
interpret data																								
c. An ability to function on					Х			X	X	Х		Х			X	X	X	Х		X	X	Х		X
multi-disciplinary teams																								
d. An understanding of			Х	Х	Х			Х	X	Х							Х		Х	X	X	X		X
professional and ethical																								1
responsibility																								
e. An ability to communicate			Х	Х	Х			Х	X	Х	Х			Х	X	Х	Х	Х	Х	X	X	X		X
effectively, including both																								1
written and verbal																								1
communication skills																								
f. A recognition of the need for,				Х	Х				Χ	Х					X	X	Х	Х		X		Х		X
and an ability to engage in, life-																								
long learning																								
g. A knowledge of				Х	Х			X	X	Х					X	Х	X		X	X	Χ	Х		Х
contemporary issues																								
h. An ability to use the		X	Х	Х	Х	Х			X	Х	X			Х	X	Х	X	Х		X	Χ	Х		X
techniques, skills, and modern																								1
technology necessary for																								1
professional practice																								
i. An understanding of the				Х	Х			Χ		Х					Χ	Χ	Χ	Х		Χ		Χ		X
national and international																								
aviation environment																								ì

j. An ability to apply pertinent knowledge in identifying and solving problems.		X	X	X	X	Х	X	X	X	X		X	Х	Х	Х	Х	X	Х	X	X		X		X
k. apply knowledge of business sustainability to aviation issues				Х						Х					X		X			X				X
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 Core Outcomes																								
Knowledge of aircraft design, performance, operating characteristics, and maintenance		Х		X					X	X		X	X	Х	X	X		Х		X		X		
Knowledge of national and international aviation law, regulations, labor relations		X		X			X	X						X	Х	Х		Х	X	X		Х		X
Knowledge of airports, airspace, and air traffic control		X	Х	Х			X	X		Х								X		X		X		
Knowledge of meteorology and environmental issues		X		Х		X	X			Х								X		X		X		X
Knowledge of aviation safety and human factors		X		Х	Х	X		X	X	Х	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				Х	X	X	X	Х		X	X	X		Х
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
Unmanned Aircraft System SLOs																								
Be able to demonstrate crew performance and coordination in UAS operational environments while applying								X										Х		X	X	X	X	X

problem solving skills and an indepth understanding of the operational, regulatory and safety environment of the National Airspace System.																						
Be able to demonstrate airmanship commensurate with applicable professional licensure.	X	X	Х	Х	Х	Х	X	Х		X	X	X	X	X		Х		X	X		X	Х
Demonstrate an understanding of the science, technology, engineering, and mathematics principles specific to UAS.			х				X	Х	Х				X	X	X	Х		X		X	X	
Develop a working knowledge of technologies and their application in UAS operations.			Х				X	Х	Х						X	Х		X		X	Х	
Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS operations.			Х					Х							X	Х	X			X	X	Х
Be familiar with computer technologies and processes associated with UAS operations to include programming, data storage and security, and networking.								X	Х				X	X	X	X		X		X	X	

4.6.5.1 Unmanned Aircraft Systems 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	3l e	AABI f	8 8	AABI h	i E	AABI j	31 k	31 1	AABI 2	31.3	31.4	31 5	918
core rearring outcomes	AAE	AAE	AAE	AAB	AABI e	AAE	AABI g	AAB	AABI i	AA	AABI k	AABI 1	AAE	AABI	AABI 4	AABI 5	AABI 6
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	Х	Х			х	х	Х		Х		х	Х	х	Х
Be able to demonstrate airmanship commensurate with applicable professional licensure.	Х	Х	Х	Х	Х			X	Х	Х		Х	Х	Х	Х	Х	Х
Demonstrate an understanding of the science, technology, engineering, and mathematics principles specific to UAS.	Х	Х			Х	X		X		X	Х			X	Х	Х	
Develop a working knowledge of technologies and their application in UAS operations.	Х	Х	Х	Х	Х	Х	Х	Х		Х	Х			Х	Х	Х	Х
Be able to demonstrate knowledge of legal, ethical, and moral issues related to UAS operations.				X	X	X	Х	X	Х	Х					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							

4.6.6 UAS Evidence Table

UAS SLO	Courses	Evidence (Assignments)	Desired Outcome
Be able to demonstrate crew	Avit 238	Block 1 Exam	Students will average 80 percent on
performance and coordination in	Avit 337	Flight Lab Score	the identified assignments across all
UAS operational environments while	Avit 438	Flight Lab Score	the courses listed.
applying problem solving skills and an in-depth understanding of the operational, regulatory and safety environment of the National Airspace System.	Avit 419	Group Project Build/ Flight Lab score	
Be able to demonstrate airmanship	Avit 126	Flight Lab Score	Students will average 80 percent on
commensurate with applicable	Avit 238	Flight Lab Score	the identified assignments across all
professional licensure.	Avit 337	Flight Lab Score	the course(s) listed.
P. C.	Avit 419	Flight Lab Score	
	Avit 438	Flight Lab Score	
Demonstrate an understanding of	Avit 126	Block Exam	Students will average 80 percent on
the science, technology,	Avit 238	Final Project (application for 107	the identified assignments across all
engineering, and mathematics		waiver)	the course(s) listed.
principles specific to UAS.	Avit 240	Project: map out communication	
		network	
	Avit 331	Project Build	
	Avit 332	Paper	
		Final Exam	
	Avit 337	Block 1 & 2 Exams	
	Avit 419	Flight Lab Score	
	Avit 438	Flight Lab Score	
Develop a working knowledge of	Avit 239	Block Exam	Students will average 80 percent on
technologies and their application in	Avit 240	Block Exam	the identified assignments across all
UAS operations.	Avit 337	Flight Lab Score	the course(s) listed.
	Avit 126	Block Exam	

Be able to demonstrate knowledge	Avit 239	Block Exam	Students will average 80 percent on
of legal, ethical, and moral issues	Avit 333	ITAR Compliance Test	the identified assignments across all
related to UAS operations.	Avit 403	Module Quiz	the course(s) listed.
	Avit 450	TBD	
Be familiar with computer	Avit 239	Block Exam	Students will average 80 percent on
technologies and processes	Avit 333	Processing of Imagery	the identified assignments across all
associated with UAS operations to	Avit 419	Flight Lab Score	the course(s) listed.

4.6.7 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.							Х
Demonstrate Knowledge of aviation management principles, including airport operations, airline management, air traffic control, aviation safety, aviation security, and aviation economics.		Х	X	X	X	X	
Demonstrate knowledge of the regulatory environment governing aviation, including federal, state, and international regulations.		X	X	X			X

4.6.8 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 311		Students will average 80 percent on the identified assignments across all the courses listed.
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.

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

Outcome\Objective	t. 100	Avit. 103	t. 105	Avit. 126	t. 176	t. 208	Avit. 250	t. 276	t. 311	t. 312	t. 313	Avit. 314	t. 328	t. 350	Avit. 376	t. 402	Avit. 403	Avit. 405	Avit 407	Avit. 412	t. 443	t. 476	Avit. 485
	Avit.	Avi	Avit.	Avi	Avit.	Avit.	Avi	Avit.	Avit.	Avit.	Avit.	Avi	Avit.	Avit.	Avi	Avit.	Avi	Avi	Avi	Avi	Avit.	Avit.	Avi
AABI General Outcomes																							
a. An ability to apply knowledge				Х									Х										
of mathematics, science, and																							
applied sciences																							
b. An ability to analyze and		Х			X	X		X	X	X		X		Х		Х		Χ	X			Х	Х
interpret data																							
c. An ability to function on						X			X	X		X				Х		Χ					Х
multi-disciplinary teams																							
d. An understanding of		Х		X	X	X		X		X	X	X		X	X		Х	Χ	X		Χ	Х	Х
professional and ethical																							
responsibility																							
e. An ability to communicate		Х		X		X	X			X		X				Х	Χ	Χ	X				Х
effectively, including both																							
written and verbal																							
communication skills																							
f. A recognition of the need for,				X		Х												X					Х
and an ability to engage in, life-																							
long learning																							
g. A knowledge of				X	X	X		X		X	X	X		X	X	Х	Х	Χ	X			X	X
contemporary issues																							
h. An ability to use the		X		X		X	X		X	X		X	X	X	X	X			X				X
techniques, skills, and modern																							
technology necessary for																							
professional practice																							
i. An understanding of the				X		Χ				X	X	Χ				Χ	Х	X	X		X		X
national and international																							
aviation environment																							

j. An ability to apply pertinent knowledge in identifying and solving problems.		Х		X	X	Х		X	X	X		X	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
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 Core Outcomes																							
Knowledge of aircraft design, performance, operating characteristics, and maintenance				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
Knowledge of airports, airspace, and air traffic control		X		X									X			X						X	
Knowledge of meteorology and environmental issues				Х												Х						Х	Х
Knowledge of aviation safety and human factors				X	X	X	Χ	X		X		X		X	X						X	Х	
Knowledge of attributes of an aviation professional, career planning, and certification	Х	Х		X					X	X		X							X				Х
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
Aviation Safety SLOs																							
Demonstrate knowledge of the skills, techniques, and procedures needed for safe and ethical operation within multiple aviation entities.	X	X	X	X		X	X	X	X	X		X	X	X							X	X	X

Demonstrate knowledge of the impact human physiology and	X	Х	X	X	X	X	X		X		X	X	X	X					X	X	
decision-making has on aviation safety.																					
Demonstrate a wide breadth of			Х	Х	Х		Х	Х	Х		Х		Х	Х	Х	Х	Х	X	X	Х	Х
knowledge in the area of safety and accident investigations.																					
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	
Demonstrate knowledge of the implications operational environments have on management and safety decision-making.					X		X	X		X					X			X	X		

4.6.9.1 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 1	AABI 2	AABI 3	AABI 4	AABI 5	AABI 6
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating within multiple aviation entities.	Х	X	X	Х	Х		Х	Х	Х	Х	X	Х	Х	Х	Х	Х	х
Knowledge of the impact human physiology and decision-making has on aviation safety.	X	X	X	X	X			X	X	X		Х				X	X

Be able to demonstrate a wide breath of knowledge in the area of safety standards and investigations.		X	X	Х	х		X	X	X	X			Х	Х	Х	Х	Х
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	Х	X		X	X	X	X	х		Х			Х	Х
Be able to demonstrate professional and ethical knowledge around aviation safety and accident investigation.	X	X	Х	X	X	X		X	X	X	X					Х	Х

4.6.10 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 Avit 485	Final Exam Interdisciplinary Group Presentation	Students will average 80 percent on the identified assignments across all the courses listed.
Demonstrate knowledge of the impact human physiology and decision-making has on aviation safety.	Avit 250 Avit 350	Final Exam Final Exam	Students will average 80 percent on the identified assignments across all the course(s) listed.
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.

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Demonstrate a wide breadth of	Avit 208	Final Exam	Students will average 80 percent on
knowledge in the area of safety and	Avit 314	Final Exam	the identified assignments across all
accident investigations.			the course(s) listed.
Demonstrate knowledge of the	Avit 407	Block Exams	Students will average 80 percent on
implications operational	Avit 443	Final Exam	the identified assignments across all
environments have on management		Table Top Exercise Assignment	the course(s) listed.
and safety decision-making.			

4.6.11 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. An ability to apply knowledge of mathematics, science, and applied sciences				Х							Х								
b. An ability to analyze and interpret data		X			X		X	X	X			X	Х		Х	X	X	X	Х
c. An ability to function on multi-disciplinary teams					X			X	X				X		Х				X

d. An understanding of professional and ethical		X		X	Х		Х		X	X		X		X	X	X		X	X
responsibility e. An ability to communicate effectively, including both written and verbal		X		X	Х	Х			X				X	X	X	X			X
f. A recognition of the need for, and an ability to engage in, lifelong learning				X	X										X		X	X	X
g. A knowledge of contemporary issues				X	X		X		Х	Х		Х	Х	Х	X	X	Х	X	X
h. An ability to use the techniques, skills, and modern technology necessary for professional practice		Х		X	Х	X		X	X		X	Х	Х			X	X		X
i. An understanding of the national and international aviation environment				X	Х				Х	X			X	X	X	X	X		X
j. An ability to apply pertinent knowledge in identifying and solving problems.		X		X	Х		Х	Х	Х		X	Х		Х	X	X	X	X	X
k. apply knowledge of business sustainability to aviation issues				X						Х			Х		X	X	Х		X
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 Core Outcomes																			
Knowledge of aircraft design, performance, operating characteristics, and maintenance				X				Х	Х		Х	Х						X	
Knowledge of national and international aviation law, regulations, labor relations				X			Х		X	X				X	X	X	X		X

Knowledge of airports, airspace, and air traffic control		X		X							Х		X						
Knowledge of meteorology and environmental issues				Х									Х						X
Knowledge of aviation safety and human factors				Х	Х	Х	Х		Х			X						Х	
Knowledge of attributes of an aviation professional, career planning, and certification	Х	Х		Х				X	Х							X	X		X
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
Aviation Studies SLOs																			
Be able to demonstrate strong critical thinking and communication skills.									Х				Х	Х	Х	X	Х	Х	Х
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating within multiple		Х	Х	Х	Х	Х	X	X	X	X	X	X					X	X	X
aviation entities.									.,		Х	V						V	
aviation entities. Be able to demonstrate a wide breath of knowledge in the area of aviation safety or business		Х	Х	X	Х	Х	Х	X	X	X	X	X	Х	X	X	X	X	X	X

4.6.11.1 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 1	AABI 2	AABI 3	AABI 4	AABI 5	AABI 6
Be able to demonstrate strong critical thinking and communication skills.	Х	Х	Х	Х	Х	Х		Х		Х	X					Х	Х
Be able to demonstrate knowledge of the skills, techniques, and procedures for safely operating within multiple aviation entities.	х	X	X	X	Х		X	Х	X	х		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	X	X
Knowledge of professionalism and ethics as it relates to the field of aviation.	X		Х	Х	Х	X	X	X		X		Х	X			X	X

4.6.12 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	Avit 105	Final Exam	Students will average 80 percent on
of the skills, techniques, and procedures for safely operating within multiple aviation entities.	Avit 126	Final Exam	the identified assignments across all the course(s) listed.
Be able to demonstrate a wide	Avit 208	Final Exam	Students will average 80 percent on
breath of knowledge in the area of aviation safety or business	Avit 408	Semester Project	the identified assignments across all the course(s) listed.

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Knowledge of professionalism and	Avit 412	Final Exam	Students will average 80 percent on
ethics as it relates to the field of	Avit 485	Interdisciplinary Group Presentation	the identified assignments across all
aviation.			the course(s) listed.

4.6.13 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			Х	Х	Х	Х																		X	Х	Х
b. An ability to analyze and interpret data			Х	Х	Х	Х																		X	X	Х
c. An ability to function on multi-disciplinary teams																										
d. An understanding of professional and ethical responsibility	Х																							X	X	Х
e. An ability to communicate effectively, including both written and verbal communication skills	X	X	X	X	X	X	Х	Х	X	X	X	X	X	Х	X	X	X	X	X	X	X	X	X	X	X	Х
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	Х	X	X	X	Х	Х	X	X	X	Х	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	X	X	X	X	Х	Х	Х	X	X	Х	Х	X	X	X	X	X	Х	Х	X	X	X	X	X	X	X	X

technology necessary for																										
i. An understanding of the national and international aviation environment	х	X	X	X	X	X	X	X	X	X	X	X	X	Х	X	X	X	X	X	X	X	X	X	X	X	Х
j. An ability to apply pertinent knowledge in identifying and solving problems.	X	X	X	X																		X	X	X	Х	Х
k. Apply knowledge of business sustainability to aviation issues	Х	X	Х	X																		X	X	X	Х	X
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	
AABI Core Outcomes																										
Knowledge of aircraft design, performance, operating characteristics, and maintenance	X	Х	Х	Х	Х	X	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	X	Х	Х	Х
Knowledge of national and international aviation law, regulations, labor relations	Х	X	Х	Х	X	X	X	X	Х	X	X	X	X	Х	Х	X	X	X	X	X	Х	X	X	Х	Х	Х
Knowledge of airports, airspace, and air traffic control	Х	X	Х	Х	X	X	X	X	X	X	X	X	X	Х	Х	X	X	X	X	X	Х	X	X	Х	Х	X
Knowledge of meteorology and environmental issues	Х	X	X	Х	X	X	X	X	X	X	X	X	X	Х	X	X	X	X	X	X	Х	X	X	Х	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	X
Knowledge of attributes of an aviation professional, career planning, and certification	X	X	Х	Х	X	X	X	X	X	X	X	X	X	Х	Х	X	X	X	X	X	Х	X	X	Х	Х	Х
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	
M.S. & Ph.D. SLOs																										

Students will apply skills learned			Х	Х	Х	Х																		Х	Х	Х
in statistics and research																										
methods courses to design a																										
research question and conduct																										
the appropriate research to																										
address a problem.																										
Students will apply the	Х			Х																				Х	Х	Х
appropriate theories learned in																										
their coursework to a research																										
problem.																										
Students will synthesize	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
gathered information and use																										
there analytical skills to develop																										
possible solutions to a particular																										
problem.																										
Students will complete either a																								Х	Х	Х
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	X																							X	Х	X
professional requires a continual																										
drive to develop and update an																										
individual's skill-set.																										
Students will be able to write at	Х	Х	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	X
an advanced level.																										
Students will be able to	X	X	Х	X	X	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	X	X	Х	X
effectively present their ideas																										
using a variety of media.																										
Students will be able to critically	X	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	Χ	Χ	Х	X
think, analyze and evaluate all																										
types of information available in																										
today's global society.																										

4.6.13.1 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.	Х		Х														
Students will apply the appropriate theories learned in their coursework to a research problem.									Х			Х					
Students will synthesize gathered information and use there analytical skills to develop possible solutions to a particular problem.		X											Х	Х	Х	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.							Х	Х		х	Х						
Students will realize that being a professional requires a continual				Х		Х											

drive to develop and update an individual's skill-set.									
Students will be able to write at an advanced level.		Х							
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.									

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

M.S. & Ph.D. Aviation SLO	Courses	Evidence (Assignments)	Desired Outcome
Goal 1: Develop aviation profe industry.	ssionals who use their technical a	nd theoretical skills to solve	problems within the aviation
Students will apply skills learned in statistics and research methods courses to design a	Avit 503 – Statics	Final Project	85% Average
research question and conduct the appropriate research to address a problem.	Avit 504 – Research Methods	Final Project	
Students will apply the appropriate theories learned in	Avit 595 – Capstone	Final Project	85% Average
their coursework to a research problem.	Avit 998/999 – Thesis/Dissertation	Thesis/Dissertation	
Students will synthesize gathered information and use	Avit 595 – Capstone	Final Project	85% Average
their analytical skills to develop possible solutions to a particular problem.	Avit 998/999 – Thesis/Dissertation	Thesis/Dissertation	

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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 2: Dayolan a scholarly set of	skills that will allow the student to fo	unction 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 Avit 998/999 – Thesis/Dissertation	Final Project Thesis/Dissertation	85% Average

4.7 Assessment of Learning Outcomes

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.

4.7.1 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.

4.7.2 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

4.7.3 Alumni Survey:

Due: Every 5-years

Closing the Loop: Every 5-Years

4.7.4 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.

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4.7.5 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.

4.8 ASSESSMENT SCHEDULE

4.8.1 Techniques Schedule by Month

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

4.8.2 Techniques Schedule by Year

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

4.8.3 Program Review Schedule

	UAS	ATM	Commercial Aviation	Aviation Mgmt, Graduate	Aviation Safety, Aviation Studies
2023				Х	
2024					Х
2025	X				
2026		Х			
2027			Х		
2028				Х	
2029					Х

4.9 CURRICULUM

4.9.1 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		
	The commercial POD focuses on upper division		
Commercial	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 focuses on all fixed wing and		
Drimany Elight	rotorcraft flight courses with the exceptions of the		
Primary Flight	CRJ transition course, which is part of the		
	commercial focus.		
	The aviation core focuses on common courses		
Aviation Core	required for all of the degree programs that meet		
Aviation core	Aviation Accreditation Board International (AABI)		
	core requirements.		

4.9.2 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
4	Aviation Management, Airport Management, Graduate Degree's
5	Aviation Safety & Operations/ Aviation Studies

5 STUDENTS

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)

Ideas:

Reduce number of students on flight hold Reduce retakes Who gets into the program Diversity

Student assessment data can be found on the university's iDashboard site, dashboards.und.edu. Data for iDashboards 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.

6 FACULTY AND STAFF

The Department of Aviation has over 50 faculty members employed to teach and advise over 1500 aviation students in 7 majors. The faculty is 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 continually monitors staffing levels to ensure all courses are sufficiently covered. Faculty holding the rank of Assistant Professor, Associate Professor, or Professor are required to engage teaching, service, and scholarship.

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.

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 risks, we also have a total commitment to ensure that they have been reduced to the lowest practical level possible. This is not accomplished 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.

Each and every one of us has the knowledge, experience, and situational awareness needed to make valuable contributions to safety. Recognizing potential hazards and identifying risks, reporting them and making recommendations for their elimination or reduction, is something we are all capable of doing. I encourage your active participation as part of the process of making a safe learning environment for all.

I pledge, as Dean of UND John D. Odegard School of Aerospace Sciences and President of UND Aerospace Foundation, that I will encourage and support anyone reporting a safety hazard or concern, and further pledge that there will be positive recognition for everyone who participates.

As members of UND Aerospace let us all continue working together to ensure an environment where safety is not only our goal and total commitment, but our passion.

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

Goal	Metric	Closing the Loop
Continue work towards optimizing	Binary	
student enrollment to correspond with		
departmental resources.		
Offer at least two opportunities each	Binary	
semester for student s and faculty to		
interact outside of the classroom		
Encourage students to participate in	Two presentation submissions	
educational presentation opportunities		
outside of the classroom. (UAA		
Conference Poster Contest)		

11.1.2 Program Mission and Educational Goals

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

11.1.3 Student Learning Outcomes

Goal	Metric	Closing the Loop
Assess Student Learning Outcomes	80 percent aggregated (based on tables	
annually by collecting Course Reports	in Section 4).	
and analyzing aggregated assignment		
scores.		

11.1.4 Curriculum

Goal	Metric	Closing the Loop
Evaluate 1 program annually based on	Annually per the schedule.	
the Program Review Schedule.		
Complete a review of all undergraduate courses within the Aviation Department, and determine a set of common metrics that can be used to assess courses in the future.	Development of common metrics	

11.1.5 Faculty and Staff

Goal	Metric	Closing the Loop
Fill open faculty and staff positions.	Binary	
Hold a faculty meeting with the Dean of	Request made and meeting scheduled	
the JDO once each semester on reading		
and review day. (Dean will provide a		
short update followed by a discussion of		
predetermined question developed by		
Aviation Faculty.)		

11.1.6 Facilities, Equipment, and Services

Goal	Metric	Closing the Loop
Continue to evaluate Aircraft and	Annual fleet committee review	
Simulator needs.		
Support College and University efforts	Binary	
towards the funding/construction of a		
new flight operations building.		

11.1.7 Aviation Safety Culture and Program

Goal	Metric	Closing the Loop
Update current emergency plan to a		
CARE focused process.		
Have working locks installed on all	Binary	
classroom doors within the Odegard		
School.		
Request a review of our facilities in terms		
of an active shooter, and receive a		
presentation on the findings by the UND		
Chief of Police.		

11.1.8 Relations with Industry

Goal	Metric	Closing the Loop
Meet twice annually with our Alumni	Meet twice annually.	
Board.		
Work with the Alumni Board to update	Updated bylaws	
bylaws so they reflect the current needs		
of the Aviation Department.		

11.1.9 Diversity, Equity, and Inclusion (DEI)

Goal	Metric	Closing the Loop
Determine a more impactful selection	Binary	
process for the Aviation LLC to better		
accommodate under represented		
populations.		
Provide funding for faculty and staff to	Funding for one person at three different	
attend national conferences which focus	conferences.	
on historically underrepresented		
populations in the field of aviation.		