MINNESOTA STATE UNIVERSITY, MANKATO
DEPARTMENT OF AVIATION

AABInternational

Comprehensive Assessment Plan 2024-2025

for the Professional Flight Program

AABI Criterion 3.11

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Introduction

This MNSU Department of Aviation Professional Flight Program assessment plan, developed by faculty and staff, is reviewed annually to ensure its relevance and comprehensiveness as a means to assist the department in meeting its goals. This plan complies with Aviation Accreditation Board International (AABI) and institutional requirements.

Acronyms & Definitions

COE – College of Education
DOL – Director of Operations and Logistics (full-time aviation staff)
FLC – Flight Lab Coordinator (faculty position)
IAB – Industry Advisory Board
IFO - Inter Faculty Organization
IR - Institutional Research
LOA - Letter of Authorization
MNSU - Minnesota State University, Mankato
NSA – North Star Aviation (contracted flight school)
PSSC – Program and Student Support Coordinator (full-time aviation staff)
R-ATP - Restricted Airline Transport Pilot
SLO - Student Learning Outcome(s)

Comprehensive Assessment Timeline

Area Assessed	Frequency	Assessed by	Remarks
Students & Student Support Services	Annually	Department Chair; Faculty & Staff	Retention/Graduation rates from MNSU IR
	Semi-Annually	PSSC	Communiques sent to students regarding support services
Program Mission & Educational Goals	Annually	Chair, DOL	Grad follow-up employment survey (MNSU IR); Safety/Climate survey;
	Semi-Annually	Chair, DOL, Faculty & Staff	Fall and Spring department meeting to discuss goals; MNSU and NSA Safety Data/Reports
	Continually	Chair, DOL, FLC	Talon review; NSA Flight Lab Completion Reports; R-ATP conferred
Student Learning Outcomes	Annually	Faculty	Spring department meeting to discuss SLOs
Curriculum	Semi-Annually	Faculty	Fall and Spring department meetings to discuss and update curriculum
	Semi-Annually	Chair, IAB	Fall and Spring meeting with the IAB to affirm and/or update the curriculum
Faculty & Staff	Semi-Annually	Department Chair	Course schedules/capacity
Facilities & Equipment	Semi-Annually	Department Chair	Classroom size and availability assessed when building course scheduled
	Continually	DOL, FLC, NSA	Average flight time per aircraft (per the NSA contract)
Aviation Safety Culture & Program	Annually	Professors of Aviation Safety (AVIA 437); Human Factors (AVIA 445)	Assessment of AABI Core Outcome #3
	Semi-Annually	DOL, FLC	Department meetings to discuss safety trends; Review of stage check/practical exam results and dispatch paperwork
Relations with Industry	Semi-Annual	Department Chair, IAB President	Fall and Spring meetings with the IAB
Diversity, Equity, & Inclusion	Annually	Faculty	Data from COE OAR

Students and Student Support Services

AABI Criterion 3.1

Student Goals

Success in the Professional Flight program is ultimately achieved when a student graduates with a BS Degree in Aviation, Professional Flight major and applies this major to a career in the aviation industry. Our goal is to see every student succeed by graduating within a four-year paradigm (i.e. 100% retention and graduation after four years); however, this is not realistic. Some students begin the program and realize that aviation is not a good fit for them. This is understandable as flight training is expensive and difficult, and if they give it a try and then move on, we wish them the best success in their future career choices. Other students take a bit longer than four years, mostly due to a lag in flight training. Students who earn their Private Pilot certificate within the first year are more apt to stay in the program and graduate at the end of a four-year academic career. Thus, we have set Retention and Graduation goals targeted at retaining students through their first year. Our specific student retention and graduation goals are as follows:

1. Retain 80% of the Entering Cohort after the first year (implies having earned at least the Private Pilot certificate)
2. Graduate 60% of those Professional Flight students retained after one year by their fourth year.
3. Graduate 80% of the Pro Flight students retained after one year by their sixth year.

Assessment Plan

- Timeline: Assessment of these goals takes place annually
- Metrics: Retention and Graduation rates are provided by MNSU Institutional Research (see the Table below)
- Person(s) Responsible: The Department Chair leads this assessment, with collaboration from Faculty and Staff

Assessment Process

- Evidence: Retention and Graduation rates are provided by MNSU Institutional Research. These numbers are lagging as it takes time to gather the correct information following Spring graduations. The most recent data reported for this analysis includes one-year retention rates from the 2022-2023 Academic Year (AY); four-year graduation rates from the 2019-2020 AY; six-year graduation rates from the 2017-2018 AY (see the Table below)

- Analysis of the Evidence: As indicated on the Table, our program met or exceeded the one-year retention goal 5 out of the last 10 years reported (i.e. retained 80% or more of the Entering Cohort after the first year.) Data for the four-year graduation rate of those retained after one year (“4 Year GRAD of 1 Year Retained”) indicates a drop in this goal during the last several years reported, which could be due, in part, to COVID. Likewise for the six-year graduation numbers (“6 Year GRAD of 1 Year Retained”).

- Improvement Plans: The Aviation Department is currently reviewing its policies, procedures, curriculum, admittance requirements, etc., to determine methods for increasing the four-year and six-year graduation percentages. A change in curriculum could include changing the final flight lab (Instructor Pilot - AVIA 364) to an elective course, which would allow more students to graduate sooner (this last lab tends to delay their progress.) There are ongoing discussions with university leadership about admittance policies, to include capping the number of students entering the program, requiring a minimum high school GPA, or other assessments of aptitude. Filtering who begins the program should positively impact both the one-year retention rate, and the graduation rates. Additionally, the Department is seeking ways to offer more “on ramps” into the next flight lab for students in order to keep them progressing in their training without undue delays. In Fall 2023 a mid-semester flight lab enrollment option became available, and future assessments will determine if this has a beneficial effect on graduation rates.

Professional Flight Retention/Graduation Rates

Year	Entering Cohort	1 YR Retention	4 YR Grad Total	4 YR Grad of 1YR Retained	6 YR Grad Total	6 YR Grad of 1 YR Retained
2013-2014	40	82.5% (33)	37.5% (15)	45.5%	65% (26)	78.8%
2014-2015	37	81.1% (30)	51.4% (19)	63.3%	70.3% (26)	86.7%
2015-2016	51	66.7% (34)	41.2% (21)	61.8%	51% (26)	76.5%
2016-2017	55	78.2% (43)	38.2% (21)	48.8%	52.7% (29)	67.4%
2017-2018	82	67.1% (55)	29.3% (24)	43.6%	39% (32)	58%
2018-2019	108	75% (81)	27.8% (30)	37%	n/a	n/a
2019-2020	148	85.8% (127)	27.7% (41)	32.3%	n/a	n/a
2020-2021	132	78% (103)	n/a	n/a	n/a	n/a
2021-2022	129	83.7% (108)	n/a	n/a	n/a	n/a
2022-2023	139	84.9% (118)	n/a	n/a	n/a	n/a

Student Support Services Goals

A positive student experience leads to stronger retention and graduation rates. Student support is instrumental to this end, and MNSU students enjoy many support services on campus designed to empower their educational experience. These include the Career Development Center, the Mental Health Counseling Center, TRIO Student Support Services, tutoring, and more. Within the Aviation Department, students are strongly supported through advising services, to include faculty advising, an Aviation Program Orientation Course (AVIA 100), a comprehensive Aviation Student Handbook, and most significantly, two full-time Program and Student Support Coordinators (PSSC). In addition to providing support through family visits, student orientations, student progress monitoring, and more, the PSSC's primary responsibility is to provide year-round one-on-one advising for all aviation students.

A strong advising program points students to the other support services available; therefore, our department has established the following goal regarding Student Support Services:

- All aviation students will be informed of advising services and campus resources available to them least once per semester.

Assessment Plan

- Timeline: Assessment of this goal takes place semi-annually (i.e. every semester)
- Metrics: Date/time-stamped mass emails and student orientation agendas communicated once per semester
- Person(s) Responsible: Program Student and Support Coordinator(s)

Assessment Process

- Evidence: Date/time-stamped mass emails; Student orientation agendas

- Analysis of the Evidence: This goal is primarily accomplished through student orientation meetings at the beginning of the Fall semester, and via mass emails sent periodically to all students. The Aviation Student Handbook also points to advising services available within the department, and, in fact, encourages students to seek advising. Additionally, the Aviation Orientation Course (AVIA 100) introduces students to services available to them. Professors are also encouraged to make In-class announcements when necessary. Emails and orientation agendas (e.g. Fall Freshman Orientation) indicate this goal was met.

- Continuous Improvement Plans: This goal is met many times over as students receive information regarding support services from many sources. Nevertheless, there are still occasions when some students don't hear the message and need additional encouragement, indicating a need to improve communications. For example, as of Fall 2024 a new advising email address was created (aviationadvising@mnsu.edu), intended as a first stop for student questions. Not all students are aware of this email address; therefore, more information will be relayed at follow-on orientations and/or via other means.

Program Educational Goals

AABI Criterion 3.2

The MNSU Aviation Department aligns its Mission and Educational Goals with the university's Mission, Vision, and Core Values (see below) in order to serve all constituents/stakeholders. These include our students and graduates of the program (primary constituents), our faculty and staff, university administrators, and industry partners (North Star Aviation, Industry Advisory Board members, and partner airlines.) Success in our mission serves all of the above and contributes to the national and global community by empowering the next generation of critical aviation professionals.

MN State University, Mankato MISSION
Minnesota State University, Mankato promotes learning through effective undergraduate and graduate teaching, scholarship, and research in service to the state, the region and the global community.

MN State University, Mankato VISION
Minnesota State Mankato will be known as a university where people expect to go further than they thought possible by combining knowledge and the passion to achieve great things.

Our foundation for this vision is our heritage of both dedicated teaching and the direct application of knowledge to improve a diverse community and world. We will achieve it by actively nurturing the passion within students, faculty and staff to push beyond possibility on the way to realizing dreams.

MN State University, Mankato CORE VALUES
Minnesota State University, Mankato is an innovative, student-centered learning community that values:

- ***Integrity*** *and respect in the way we conduct ourselves;*
- ***Diversity*** *in who we are and what we do;*
- ***Access*** *to our programs and services that create opportunities for all to pursue their dreams;*
- ***Responsibility*** *to those we serve by providing an education that inspires solutions to society's challenges; and*
- ***Excellence*** *in our academic and non-academic pursuits.*

Aviation Program Mission Statement

The mission of Minnesota State University's aviation program is to educate students today who will become professionals responsible for the safe and efficient design, management, and operation of the aviation system tomorrow. The program combines all elements of a substantive university education with aviation, flight, and management components to graduate well prepared aviation professionals. Acquisition of airmanship knowledge, skills, and ability while in college develops professionalism, responsibility, self-reliance and marketable skills for early career progression, and provides important experiences which ensure a level of understanding and competency essential to becoming an effective leader in an aviation profession.

Aviation Program Educational Goals

In order to fulfill our mission and that of university, the Aviation Department strives to …

1. Graduate students who are competent and well prepared to enter and succeed in the aviation profession.
2. Provide a safe academic and flight training experience on campus and at the airport.
3. Foster an environment where students from all backgrounds feel welcome and included, and to ensure that all students enjoy equal access to educational resources.

Assessment Plan

- Timeline: Continuous, Semi-Annually, Annually
- Metrics: Number of CFI/CFII/MEI and Commercial Certificates (AMEL/ASEL) conferred; number R-ATP eligibility certificates conferred; >80% employment in related field; 2 events/week minimum scheduling frequency; MNSU and NSA Safety Data/Reports
- Person(s) Responsible: Department Chair, DOL, FLC, Faculty and Staff

Assessment Process

- Evidence:
    - Goal #1 is assessed via completion of culminating flight labs (Instructor Pilot (CFI/CFII/MEI) - AVIA 364; Commercial Multi-Engine - AVIA 253) as reported by North Star Aviation; via graduate employment data (Related Employment) as reported by MNSU Institutional Research; and via the number of Restricted ATP Certificates conferred.
    - Goal #2 is assessed via safety data gathered from campus security and the flight safety office at North Star Aviation (see Criterion 3.8) and via student safety/climate surveys
    - Goal #3 is assessed via scheduling data provided by North Star Aviation (i.e. equal access to training resources) and via student safety/climate surveys

- Analysis of the Evidence:
    - Goal #1 Assessment:
        - Our graduates are continually sought after by Delta Airlines (Delta “Propel”), Sun Country Airlines (“Bridge” program), and other regional air carriers, such as Endeavor and SkyWest airlines, implying success in Goal #1. Follow-up status surveys of students within one year of graduation, conducted by MNSU Institutional Research, provide specific measurements that inform the department of success in this goal. 78% of 2023 Professional Flight graduates reported employment in a related field, with 13 of 77 students unknown (i.e. did not respond.) Thus, this percentage is likely higher, indicating success in our mission. (See “Graduate Follow-up Status within One-Year of Graduation” table below). When a graduate is hired by an airline, he/she will request a signed Restricted Airline Transport Pilot (R-ATP) eligibility certificate, which provides our department with a direct measurement of success in this goal. 52 certificates were conferred in the 2023-2025 period.

        - Another direct measurement of success in this goal is indicated by the number of graduates earning their Certified Flight Instructor ratings (CFI/CFII/MEI), which is accomplished in the Instructor Pilot Flight Lab - AVIA 364. Passing this intensive practical exam demonstrates competence in the aviation profession. This is a required flight lab for our program; thus, all professional flight students must complete it to graduate. Rare exceptions include international students who do not receive funding for this lab from their sponsors, students with military orders to begin flight training, or students with major career-disrupting health issues. In these rare cases a student may substitute the final flight lab with an upper division aviation elective course; however, the Commercial Multi-Engine Flight Lab (AVIA 253) is still required to major in Professional Flight (thus, AVIA 253 completions provides a direct measurement of success.) In Academic Year (AY) 2023-2024, 73 students graduated from our Professional Flight program, indicating 73 professional flight certificates/ratings (AVIA 364 and/or AVIA 253) were conferred.

- Goal #2 Assessment: Please see Criterion 3.8 "Aviation Safety Culture and Program" below for information on the assessment of this goal.

- Goal #3 Assessment: Anonymous student safety/climate surveys, intended to be administered once per year, provide the best data to inform faculty and staff on the assessment of Goal #3. The previous survey was conducted in 2021, and this was designed to deal exclusively with the safety culture at our flight school. A new more comprehensive safety/climate survey, covering inclusion and equal access to resources, was administered in AY 2024-2025 and is under analysis. A review of scheduling data indicates all students enjoy equal access to training resources.

Degrees Conferred

Program and Concentration	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Aviation - BS	**43**	**45**	**62**	**75**	**105**	**93**
Aeronautics		1	9	2	4	5
Avia: Aviation Management	15	14	19	20	24	15
Avia: Professional Flight	27	30	34	30	77	73
No Concentration	1			23		
Total	**43**	**45**	**62**	**75**	**105**	**93**

Graduate Follow-up Status within One Year of Graduation

Program and Concentration	2018-19	2019-20	2020-21	2021-22	2022-23
Aviation - BS	**43**	**45**	**62**	**75**	**105**
Aeronautics		**1**	**9**	**2**	**4**
Available Unemployed		1	1		1
Continuing Education			1		1
Employed Related			4		1
Employed Unrelated Seeking Related			1		
Status Unknown			2	2	1
Avia: Aviation Management	**15**	**14**	**19**	**20**	**24**
Available Unemployed	1	3	2	1	2
Continuing Education	1	3		2	
Employed Related	5	4	9	10	19
Employed Unrelated Not Seeking Related				1	
Employed Unrelated Seeking Related	3		2	1	
Not Available for Employment			1		
Status Unknown	5	4	5	5	3
Avia: Professional Flight	**27**	**30**	**34**	**30**	**77**
Available Unemployed	1			1	1
Continuing Education		2			2
Employed Related	19	20	23	18	60
Employed Unrelated Not Seeking Related					1
Not Available for Employment			1		
Status Unknown	7	8	10	11	13
No Concentration	**1**			**23**	
Available Unemployed				1	
Continuing Education				1	
Employed Related	1			12	
Status Unknown				9	
Total	**43**	**45**	**62**	**75**	**105**

- Continuous Improvement Plans:

    - Goal #1: All data indicates this goal is being met. There is some discussion within the department about reducing the graduation requirement by changing the final flight lab (Instructor Pilot - AVIA 364) to an elective course, which would help the department accommodate more students. The Commercial Multi-Engine flight lab (AVIA 253) would remain a required course, and this alone can demonstrate competence and preparedness to succeed in the aviation profession. However, there will be a need to adjust graduation requirements in order to maintain program integrity in case this change is made.

    - Goal #2: Assessment data from Criterion 3.8 “Aviation Safety Culture and Program” indicate success in this area; however, when it comes to safety there is always room for improvement. While the safety climate survey from 2021 indicates a strong safety culture/mindset among students and CFIs, the department recognizes the need to involve students more in the safety culture and program. A student advisory board was recently created, and this is one area where students can have a participatory voice in the process. The NSA safety officer facilitates a monthly Safety Advisory Council meeting (in addition to the Aviation Safety Review Board attended by MNSU). This council includes students, instructors (i.e. recent graduates), and representatives from various departments within NSA.

    - Goal #3: A more comprehensive climate survey, currently under analysis, will indicate areas to improve.

Student Learning Outcomes (SLOs)

AABI Criterion 3.3

In order to achieve our Program Education Goals, and to fulfill our mission, the Aviation Department assesses specific student learning outcomes (SLO) established by faculty and AABI:

Program SLOs:
Students graduating from our program are able to …

1. Express oneself clearly in written and oral presentations.
2. Instill the importance of being able to continue training, education, and intellectual development after graduation to remain current on industry trends.
3. Demonstrate the ability to collect information to think critically, make developed decisions, and problem solve.
4. Work collaboratively and effectively as part of a diverse team (crew)
5. Demonstrate a basic understanding of the leadership and managerial skills required to be an effective leader in the aviation industry.
6. Perform basic research, interpret, and analyze the data you develop, and make meaningful presentations based on that research.
7. Demonstrate knowledge, skills, and attributes necessary to be a success in the discipline.

AABI General Outcomes:
Graduates of the aviation program are able to:

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 written communication skills;
f. Communicate effectively, using oral communication skills;
g. Engage in and recognize the need for life-long learning;
h. Assess contemporary issues;
i. Use the techniques, skills, and modern technology necessary for professional practice;
j. Assess the national and international aviation environment;
k. Apply pertinent knowledge in identifying and solving problems;
l. Apply knowledge of sustainability to aviation issues.

AABI Core Outcomes:
Graduates of the aviation program are able to:

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.

Assessment Plan

The reader will note there are redundancies across many SLOs. This is by design as these are critical skills necessary for success in aviation. These learning outcomes are assessed in aviation courses at various levels throughout a student's education following a natural progression of:

1. Introduction
2. Practice
3. Evaluation

Tables 3.3.1 - 3.3.3 below identify those courses where each SLO is Introduced ("I"), Practiced ("P"), and Evaluated ("E"). Evaluated outcomes, and methods of evaluation, to include evidence gathered, are further identified on individual course assessment forms (see Table 4 for an example.) This is the responsibility of each course professor. When assessing evaluated outcomes, professors determine what, if any, changes to the course are required based on the results. At the end of each Spring semester, faculty discuss these assessments during the last Department/Assessment meeting, strategizing together on improvements that can be made, if required, to any given class or to the overall curriculum.

It's important to note that all graduates of our program must also complete the university's General Education requirements which covers at least 44 credits in the following 13 Goal Areas:

- Goal Area 1: Communication
- Goal Area 2: Critical Thinking
- Goal Area 3: Natural Science
- Goal Area 4: Mathematical Logical Reasoning
- Goal Area 5: History and the Social and Behavioral Sciences
- Goal Area 6: Humanities and the Arts
- Goal Area 7: Human Diversity
- Goal Area 8: Global Perspectives
- Goal Area 9: Ethical and Civic Responsibility
- Goal Area 10: People and the Environment
- Goal Area 11: Performance and Participation
- Goal Area 12: First Year Experience (Optional)
- Goal Area 13: Information Technology (Optional)

Information on MNSU General Education policies, goal areas, and specific courses are identified in the online course catalog, located here:
https://www.mnsu.edu/academics/academic-catalog/undergraduate/graduation-requirements#generaleducation

Assessment Process

- Evidence (Timeframe): Evidence includes exams, papers, presentation slides, outlines, grading rubrics, etc. Professors are expected to assess their Evaluated SLOs at least once per year, ideally once per semester.

- Analysis of Evidence: The course assessment forms (see the example for Aviation Safety - AVIA 437 - below) provide space for analysis. Professors will state reasons for SLO results (i.e. whether or not an established goal was met.)

- Continuous Improvement Plans: The course assessment forms also provide space for professors to write continuous improvement plans, if needed. Additionally, course assessments are discussed among the faculty at end-of-semester department meetings.

AABI Criterion 3.3.1 - AABI General Outcomes	AVIA 100 Aviation Program Orientation	AVIA 101 World of Aviation	AVIA 150 Private Pilot	AVIA 151 Private Pilot Flt Lab	AVIA 153 Pivate Pilot II Flt Lab	AVIA 201 Theory of Flight	AVIA 240 Instrument Pilot	AVIA 241 Instrument Flt Lab	AVIA 243 Instrument II Flt Lab	AVIA 250 Commercial Pilot	AVIA 251 Commercial Flt Lab	AVIA 253 Commercial II Flt Lab	AVIA 334 Aviation Management	AVIA 338 Adv. A/C Systems	AVIA 340 Flight Operations	AVIA 360 Flight Instructor	AVIA 364 Flight Insructor Flt Lab	AVIA 432 Aviation Law	AVIA 436 Flight Ops and Procedures	AVIA 437 Aviation Safety	AVIA 445 Human Factors	AVIA 450 Pro Pilot Theory	AVIA 451 Pro Pilot Flt Lab	AVIA 455 Aircraft Performance	GEOG 217 Weather	PHYS 101	MAth 112
a. Apply mathematics, science, and applied sciences to aviation-related disciplines;						P								P										E		I	I
b. Analyze and interpret data;						P								P										E	P		
c. Work effectively on multi-disciplinary and diverse teams;																	I			E			P				
d. Make professional and ethical decisions;		I														P						E	P				
e. Communicate effectively, using written communication skills;													I			P			P		E	P					
f. Communicate effectively, using oral communication skills;										I						E				P							
g. Engage in and recognize the need for life-long learning;		I													P							E					
h. Assess contemporary issues;		I													P					E		P					
i. Use the techniques, skills, and modern technology necessary for professional practice;				I				P	P		P												E				
j. Assess the national and international aviation environment;		I																E				P					
k. Apply pertinent knowledge in identifying and solving problems;			I			P								P									E				
l. Apply knowledge of sustainability to aviation issues.		I								P			E														

Table 1: Courses that assess AABI General Outcomes

AABI Criterion 3.3.2 - AABI Aviation Core Outcomes		AVIA 100 Aviation Program Orie	AVIA 101 World of Aviation	AVIA 150 Private Pilot	AVIA 151 Private Pilot Flt Lab	AVIA 153 Pivate Pilot II Flt Lab	AVIA 201 Theory of Flight	AVIA 240 Instrument Pilot	AVIA 241 Instrument Flt Lab	AVIA 243 Instrument II Flt Lab	AVIA 250 Commercial Pilot	AVIA 251 Commercial Flt Lab	AVIA 253 Commercial II Flt Lab	AVIA 334 Aviation Management	AVIA 338 Adv. A/C Systems	AVIA 340 Flight Operations	AVIA 360 Flight Instructor	AVIA 364 Flight Insructor Flt Lab	AVIA 432 Aviation Law	AVIA 436 Flight Ops and Proced	AVIA 437 Aviation Safety	AVIA 445 Human Factors	AVIA 450 Pro Pilot Theory	AVIA 451 Pro Pilot Flt Lab	AVAI 455 Aircraft Performance	GEOG 217 Weather	PHYS 101	MATH 112
1 Professional Issues	Attributes of an Aviation Professional		I														P				P		E					
	Career Planning		I								P												E					
	Certification			I				P			E																	
2 Aircraft	Design		I				P																		E			
	Performance			I			P																		E			
	Operating Characteristics					I							P		E													
	Maintenance			I							P				E													
3 Safety	Aviation Safety			I									P									E						
	Human Factors			I									P										E					
4 Legal & Labor Issues	National Aviation Law/Regulations			I									P						E									
	International Aviation Laws/Regulations			I							P								E									
	National and International Labor Issues		I											P					E									
5 Resource Management	Airports			I				P			E																	
	Airspace			I				P			E																	
	Air Traffic Control			I				P			E																	
6 Environmental	Environmental Issues		I											P							E							
	Meteorology			I				P			E															P		

Table 2: Courses that assess AABI Core Outcomes

List the Program Criteria Outcomes (derived from the Program Educational Goals in Section 3.2)	AVIA 100 Aviation Program Orientation	AVIA 101 World of Aviation	AVIA 150 Private Pilot	AVIA 151 Private Pilot Flt Lab	AVIA 153 Pivate Pilot II Flt Lab	AVIA 201 Theory of Flight	AVIA 240 Instrument Pilot	AVIA 241 Instrument Flt Lab	AVIA 243 Instrument II Flt Lab	AVIA 250 Commercial Pilot	AVIA 251 Commercial Flt Lab	AVIA 253 Commercial II Flt Lab	AVIA 334 Aviation Management	AVIA 338 Adv. A/C Systems	AVIA 340 Flight Operations	AVIA 360 Flight Instructor	AVIA 364 Flight Insructor Flt Lab	AVIA 432 Aviation Law	AVIA 436 Flight Ops and Procedures	AVIA 437 Aviation Safety	AVIA 445 Human Factors	AVIA 450 Pro Pilot Theory	AVIA 451 Pro Pilot Flt Lab	AVIA 455 Aircraft Performance	GEOG 217 Weather	Phys 101	MATH 112
Outcome 1: To express oneself clearly in written and oral presentations													I			E				P	E						
Outcome 2: Instill the importance of being able to continue training, education, and intellectual development after graduation to remain current on industry trends		I														P						E					
Outcome 3: Demostrate the ability to collect information to think critically, make developed decisions, and problem solve							I			P													E				
Outcome 4: Work collaboratively and effectively as part of a diverse team or crew																	I			E			P				
Outcome 5: Demostrate a basic understanding of the leadership and managerial skills required to be an effective leader in the aviation industry										I			E		P												
Outcome 6: Perform basic research, interpret, and analze the data you develop(, and make meaningful presentations based on that research)																I			P					E			
Outcome 7: Demonstrate knowledge, skills, and attributes necessary to be a success in the disipline																I						P	E				

Table 3: Courses that assess Aviation Program Outcomes

Course Assessment Example: AVIA 437 Spring 2023 Assessments

Outcome	Assessment Method	Goal	Evidence
AABI General Outcome 3.3.1.c Work effectively on multi-disciplinary and diverse teams	Group SMS research project and presentation	All >80%	All > 90%
Analysis: Groups of 4/5 are randomly selected by D2L and most represent a mix of genders, ethnicities, and backgrounds (e.g. Aviation Management; Pro-Flight; UAS; various flight experience levels.) Presentations are graded by peers, which tend to inflate the results.			
Plan: Will consider a "professor qualifier" added to the final point totals, which would provide a slightly less biased assessment. No other changes planned.			
AABI General Outcome 3.3.1.h Assess Contemporary Issues	Final Exam	All >80%	82%> 80%
Analysis: The majority of the final exam questions cover contemporary issues in aviation safety. Most students scored well above 80%; however, there were some outliers who either didn't study or take notes during class, or are poor test takers.			
Plan: No need to change the exam at this time – it is not too difficult for most students who put some effort into this class. Will consider methods for emphasizing good study habits, note taking, etc.			
AABI Core Outcome 3.3.2 (3) *Evaluate aviation safety and the impact of human factors on safety*	Final Exam	All >80%	82%> 80%
Analysis: All of the final exam questions cover aviation safety and the impact of human factors. Most students scored well above 80%; however, there were some outliers who either didn't study or take notes during class, or are poor test takers.			
Plan: No need to change the exam at this time – it is not too difficult for most students who put some effort into this class. Will consider methods for emphasizing good study habits, note taking, etc			
AABI Core Outcome 3.3.2 (6) *Discuss the impact of meteorology and environmental issues on aviation operations.*	End of Chapter Questions	All >80%	78%>80%
Analysis: End of chapter questions require students to consider the impact of meteorology and environmental issues on aviation safety, among other impacts (some more directly than others). Evaluation of their work is subjective and determined by a rubric.			
Plan: Need to consider specific questions that point to this learning outcome. Also, the textbook has been revised to a later edition; therefore, questions and chapter orders have changed. Need to adjust.			
Program Outcome 4 *Work collaboratively and effectively as part of a diverse team or crew*	Group SMS research project and presentation	All >80%	All > 90%
Analysis: Groups of 4/5 are randomly selected by D2L and most represent a mix of genders, ethnicities, and backgrounds (e.g. Aviation Management; Pro-Flight; UAS; various flight experience levels.) Presentations are graded by peers, which tend to inflate the results.			
Plan: Will consider a "professor qualifier" added to the final point totals, which would provide a slightly less biased assessment. No other changes planned.			

Curriculum

AABI Criterion 3.4

Curriculum Goals

The Professional Flight curriculum is designed to ensure students receive breadth and depth in their education, which points directly to our mission statement and our goal to "*Graduate students who are competent and well prepared to enter and succeed in the aviation profession*." The curriculum is faculty-supported and faculty-created, and it has been refined over time to maintain relevance with industry trends.

The specific curriculum, found in the course catalog, includes 26 core credits that are common to all four aviation program emphases, and 40 emphasis credits required for the Professional Flight major. The curriculum includes math and science components necessary for a foundational knowledge of aerodynamics, and ground schools that are specifically tied to their associated flight labs. Other courses that round out a professional education in aviation include topics such as Safety, Human Factors, Aviation Management, Flight Operations, and, ultimately, capstone courses such as Professional Pilot Theory and the Professional Flight Course (i.e. CRJ700 Jet Simulator.) It's important to note that our curriculum provides the necessary 60 hours of aviation coursework required for the FAA Restricted Airline Transport Pilot (R-ATP) certificate.

Faculty develops and refines our curriculum to meet the following goals:

1. Ensure students are well prepared to enter and succeed in the aviation profession
2. Ensure our courses Introduce, Practice, and Evaluate all Program and AABI Student Learning Outcomes identified in Criterion 3.3 above
3. Ensure our courses meet all requirements for the FAA R-ATP

Assessment Plan

- Timeline: Assessment of these goals takes place semi-annually (i.e. end of each semester)
- Metrics:
    - Goal #1 - see assessment plan above for Program Educational Goal #1 (Criterion 3.2)
    - Goal #2 - see Assessment Plan above for Student Learning Outcomes (Criterion 3.3)
    - Goal #3 - FAA Restricted ATP Letter of Authorization (LOA) Table 2, as compared to the Aviation Course Catalog.
- Person(s) Responsible: Department Chair; Faculty

Assessment Process

- Evidence: Department and IAB meeting minutes regarding discussions of curriculum effectiveness. R-ATP LOA, compared to the Aviation Course Catalog. Evidence as indicated for Criterion 3.2 and 3.3 above.
- Analysis of the Evidence: Ongoing discussions with the IAB, and amongst Faculty, indicate curriculum effectiveness, as also indicated by positive results in the assessment of Program Education Goal #1 (Criterion 3.2) The FAA R-ATP LOA was recently updated (June 2023) to reflect changes in the curriculum that occurred many years prior (e.g. credits for ground schools changed from 4 to 3.) This update was more of an administrative process to keep records current - no major change to the curriculum had occurred.
- Improvement Plans: As the program grows due to high demand, there are ongoing discussions within the department, and with university leadership, to consider strategies involving the curriculum that will accommodate more students with the same resources, but without compromising program quality. One example under consideration is changing the final flight lab (Instructor Pilot - AVIA 364) to an elective. The Industry Advisory Board will be relied on for wise counsel during the process.

Faculty & Staff

AABI Criterion 3.5

Faculty & Staff Goals

The Aviation Program strives to maintain a full complement of faculty and staff members who possess the necessary knowledge and skills to provide our students with a comprehensive aviation education. Our goal is to ensure well balanced student-to-faculty and student-to-staff ratios. This is difficult to do in our current environment where demand for aviation education and training is very high, and universities struggle to keep up with the enormous salaries offered by the industry.

Specific goals for faculty and staff include the following:

1. Hire and retain enough qualified faculty members to maintain a maximum 40:1 student-to-faculty ratio
2. Hire and retain enough qualified staff positions to maintain a maximum 150:1 student-to-staff ratio
3. Hire and retain qualified adjunct professors with relevant industry and teaching experience to teach professional flight courses not covered by full-time faculty

Assessment Plan

- Timeline: Faculty & Staff goals are assessed semi-annually (i.e. at the end of each semester)
- Metrics: Student enrollment data compared to faculty/staff count (i.e. should be 40:1 or lower, and 150:1 or lower, respectively)
- Person(s) Responsible: Department Chair

Assessment Process

- Evidence: Data provided by University Admissions indicates there were 689 students enrolled in the program beginning Fall 2024. The department employs nine full-time faculty members, and four full-time staff. In Fall 2024 11 adjunct professors were also employed to teach aviation courses.

- Analysis of the Evidence: Faculty and staff goals are assessed every semester by the Department Chair when course schedules are built for the following semester. Per the Inter Faculty Organization (IFO) contract, full-time faculty are limited to 24 credits per academic year, with the option to add five additional overload credits. Faculty may also choose to teach up to 16 additional credits over the summer sessions. These rules limit the number of courses that may be offered to students unless there are an adequate number of adjunct professors to make up the shortfall. In the Fall 2024 semester, the student-to-faculty ratio was nearly 77:1; and the student-to-staff ratio was over 170:1, indicating an inadequate number of professors and staff to accommodate a growing student population (Goals #1 and #2 not met). During the semester the program maintained an average 87% course occupancy rate across 55 sections (includes 8 learning communities), with nearly half of the sections (22 of 55) at 100% occupancy (or more). This also indicates that classroom and/or instructor resources may have been inadequate, requiring a number of students to wait for the following semester to take a critical class. Students receive quality and comprehensive instruction delivered by faculty and adjunct professors who come from a variety of backgrounds and industry experiences. The number of adjunct professors willing to teach courses for our program is adequate (11 in the Fall 2024 semester); however, we anticipate a larger need for outside assistance as the new record-sized class of freshmen (approximately 240) progresses into the upper division courses. Thus, for the time being goal #3 is met.

- Improvement Plans: This is a difficult problem to solve as universities are unable to match the salaries offered by the aviation industry. Creative solutions must be considered as there is currently no end in sight to the extreme demand of students for aviation programs. Our program did hire a second Program and Student Support Coordinator (PSSC) starting Fall 2024, thus bringing our staff up to four.

Facilities & Equipment

AABI Criterion 3.6

Facilities & Equipment Goals

As the number of students grows due to increasing demand, facilities and equipment must expand to accommodate. Goals for aviation facilities and equipment established by the faculty include the following:

1. Well equipped classrooms, appropriately sized, are available every semester to accommodate all course offerings.
2. A standardized fleet of well-maintained aircraft is available and large enough to allow students to fly at least two times per week.
3. High quality flight simulators, able to mimic flight in instrument conditions, are available to all students for training at least two times per week.

Assessment Plan

- Timeline: Facilities & Equipment goals are assessed semi-annually (i.e. at the end of each semester) and Continually (i.e. flight schedule reviews)
- Metrics: Enrollments in classes with capacities of 30-40 students; Talon scheduling data - students scheduled at least 2X/week; Aircraft usage: >100 hours/month requires additional aircraft (per the NSA contract)
- Person(s) Responsible: Department Chair; DOL, FLC, North Star Aviation

Assessment Process

- Evidence: Class enrollment data from E-Services; Aircraft usage reports from NSA; student schedules in Talon
- Analysis of the Evidence:
    - For the Fall 2024 semester the program maintained an average 87% course occupancy rate across 55 sections (includes 8 learning communities), with nearly half of the sections (22 of 55) at 100% occupancy (or more). This indicates that classroom and/or instructor resources may have been inadequate, requiring a number of students to wait for the following semester to take a critical class.
    - A continuous review of student schedules in Talon indicates inconclusive results. Some students are scheduled at least 2X/week for training events at NSA. Those who are not may be in the queue for a stage check, in between flight labs, or off the schedule due to personal requests.
    - Aircraft usage data reported from NSA for the contract period 7/01/2023 - 6/30/20224 indicates aircraft are flying on average 76.52 hours/month. Per the NSA contract with MNSU, this is within the range established and designed to ensure an adequate number of training resources.
    - NSA recently purchased three new Flight Training Devices from Precision Flight Controls to replace its two aging Red Bird FTDs. Two the PFC FTDs mimic the Piper Archer, and one mimics the Piper Seminole. NSA is also building a new facility to house these FTDs, with room for a fourth. Scheduling data indicates this is an adequate number of FTDs for the student population.
- Improvement Plans:
    - There are discussions at the VP of Academic Affairs level (i.e. Provost) to improve efficiencies in the allocation of classrooms campus-wide. The Provost office recognizes the need in the Aviation Department for larger classroom capacities and is working with the Chair and staff on this. Rooms are well-equipped with technology; however, furnishings are old in some of them. The university has plans to replace the aging Armstrong Hall with a new building; however, due to budget constraints those plans are on hold.
    - NSA created a scheduling office a few years ago to improve efficiencies in the scheduling process. The process will require continuous monitoring by NSA and MNSU staff to determine where more efficiencies can be found.
    - Airplane/FTD usage is adequate. New aircraft orders must be placed well in advance of anticipated need (approximately two years). NSA had two new Seminoles delivered in July 2024, one new Archer in Sep 2024, and has orders for five additional Archers over the next year. Aircraft are well maintained.

Aviation Safety Culture and Program

AABI Criterion 3.8 and 5.5.3 (2)

Safety Goals

The Department of Aviation, in partnership with the Institution and our contracted flight training provider North Star Aviation, has established a robust safety program that incorporates Safety Management System (SMS) principles as defined by ICAO and the FAA. The overall goal of our safety program ties directly to one of our department's educational goals, which is to provide a safe academic and flight training experience on campus and at the airport.

To meet and maintain its primary safety goal, the Aviation Department seeks to ensure that …

1. The Institution, and all aviation faculty, staff, students, and North Star Aviation personnel, will strive to continuously improve the safety culture and Safety Management System (SMS) of our program. Specific goals assessed to meet this criterion include the following:
    a. Members of the MNSU Aviation Department will meet monthly with NSA staff, and a member of the Institution responsible for safety and security will attend at least one of these meetings per semester, to discuss safety reports, issues, and trends.
    b. NSA Safety staff will attend at least one department meeting per semester to discuss, analyze, and improve the Safety Management System.
    c. A member of the Student Advisory Board will attend at least one department meeting and one safety meeting per semester.
2. Students develop a strong safety mindset throughout their education by learning how to evaluate aviation safety and the impact of human factors on safety. Specific goals assessed to meet this criterion include the following:
    a. AABI Core Outcome #3 is assessed in Aviation Safety class -AVIA 437, and Aviation Human Factors class - AVIA 445.
    b. Students will attend at least one Safety Down Day event per academic year.
3. Students and instructors employ sound risk management practices on every flight. Specific goals assessed to meet this criterion include the following:
    a. Risk management skills, to include an understanding of PAVE, I'M SAFE, and personal minimums, will be evaluated during every stage check and/or practical exam.
    b. All students will complete a Wt & Balance form, which includes an I'M SAFE affirmation, prior to every flight.

Assessment Plan

- Timeline: These goals are assessed Annually (SLO Assessments) and Semi-Annually (i.e. once per semester)
- Metrics: Meeting minutes/attendance indicate monthly safety meetings and semi-annual department meetings discussing SMS; SLO assessment metrics established for AVIA 437 and 445 per Criterion 3.3; Stage check/practical exam results indicate no failures for Risk Management Skills
- Person(s) Responsible: All are responsible; however, specific safety assessments fall under the Director of Operations and Logistics (DOL) who's primary responsibility is oversight of the flight training contractor and safety program, and the faculty Flight Lab Coordinator (FLC) who oversees the quality of flight instruction offered by our training partner, North Star Aviation.

Assessment Process

- Evidence: MNSU/NSA Safety Management System document; Monthly safety meeting minutes, including attendance records; Department meeting minutes, including attendance records; AVIA 437 and 445 Assessment Forms (see Criterion 3.3 above); Safety Down Day agenda and attendance records; Stage check/practical exam records in Talon; Dispatch paperwork

- Analysis of the Evidence:
    - Safety Review Board meetings at NSA have taken place continually and attended by at least one member of the MNSU Aviation Department; however, meeting minutes on file only go back to Fall 2022. A member of the Institution responsible for safety and security began to join these meetings in the Fall 2024 semester. For the 2023-2024 AY (Including Fall 2024) this goal was attained.
    - Beginning last year (AY 2023-2024) the NSA Safety Officer has been attending department meetings to discuss flight safety trends at the airport, indicating this goal was attained.
    - A new Student Advisory Board is being formed. No students from the board have attended a department meeting and/or aviation Safety Review Board meeting at NSA. This goal was not met; however, plans are in-work to improve student participation.
    - AABI Core Outcome #3 was adequately covered in AVIA 437 (Aviation Safety) and AVIA 445 (Human Factors) last year, with students demonstrating core competencies in these areas.
    - One Safety Down Day event was held last year (Oct 5, 2023) and was well attended. One Safety Down Day event was held this year (Oct 3, 2024) and was well attended.
    - No students failed a stage check/practical exam last year (AY 2023-2024) due to a lack of Risk Management Skills. All students complete a Wt. & Balance form before every flight. This goal continues to be attained.

- Improvement Plans: Improving the safety culture at any organization is an ongoing effort, and it represents a goal that is never fully attained. In other words, there is always room for improvement. Assessment of our safety program and culture last academic year (2023-2024), to include Fall 2024, indicates movement in the right direction; however, one area that needs bolstering centers on student involvement. Students are developing sound safety perspectives through their education in core classes, such as Aviation Safety and Aviation Human Factors; they are attending annual Safety Down Day events in strong numbers; and they demonstrate sound Risk Management skills on all flights and during stage checks/practical exams. More student involvement in the management of the safety program is needed, which would be indicated by student attendance to Safety Review Board and Department meetings. A newly forming Student Advisory Council will elect a safety representative to attend future meetings, and to report safety trends and other SMS principles gleaned from these meetings back to the Council and to the larger student population.

Relations with Industry

AABI Criterion 3.9

Relations with Industry Goals

In order to ensure educational relevance and currency in our curriculum, the Aviation Department seeks advice and affirmation from industry partners. This process is formally incorporated via an Industry Advisory Board (IAB) consisting of industry professionals from local airlines, corporate flight departments, aviation service providers, and government offices. To maintain a strong relationship with members of the IAB, the Aviation Department has established the following goal:

> Faculty and staff will meet every academic semester with our IAB to discuss industry trends and potential updates to our curriculum.

Additionally, the department employs many adjunct professors who serve full-time in the aviation industry. Our relationships with these professionals help us maintain a robust program delivering sound instruction that our graduating students can take to their future professions. The goal to hire and retain qualified adjunct professors from the industry is covered under Criterion 3.5 - Faculty & Staff (see above).

Assessment Plan

- Timeline: This goal is assessed semi-annually (i.e. every semester)
- Metrics: Meeting minutes will indicate semi-annual meetings with the IAB.
- Person(s) Responsible: The Department Chair, in conjunction with the IAB President, establishes meeting timeframes and agendas.

Assessment Process

- Evidence: IAB meeting minutes, including attendance records, serve as the evidence for assessing this goal.

- Analysis of the Evidence: Over the past five years, beginning in Fall 2019, the Aviation Department met with the IAB every semester except Fall 2020. The absence of a Fall 2020 meeting was due to COVID. Meeting minutes indicate good discussions regarding curriculum and industry trends. The IAB has been very helpful in supporting the Department when curriculum changes were sought (examples: letters of support from the IAB to create a new Confidence Maneuver Training flight lab, to create a new UAS Program, and to create a new Master of Aviation Safety program.)

- Improvement Plans: The Aviation Department's relationship with the IAB is strong, and meetings continue as planned. The IAB is relatively small when compared to other institution's aviation programs; however, there are some advantages to having a smaller, more efficient group (e.g. ease of scheduling; all voices heard) Students have participated in past meetings, and this has proven beneficial. Therefore, the IAB is seeking to involve more students in future meetings.

Diversity, Equity, and Inclusion

AABI Criterion 3.10

DEI Goals

Consistent with the university's Vision/Core Value - "Diversity in who we are and what we do" - our department seeks to "*foster an environment where students from all backgrounds feel welcome and included, and to ensure that all students enjoy equal access to educational resources*." This is one of our three primary goals. As such, our department's strict policy ensures that all students are treated fairly and equitably.

Our program enjoys a significant number of international students, the majority coming from Saudi Arabia and South Korea, but many come from other regions of the world. We are also seeing an increasing number of women entering this male-dominated field, which is encouraging. In fact, increasing the number of women aviators in our program is our specific goal, as achieving this goal drives us to ensure a more inclusive environment for students from all backgrounds. As such, our two DEI goals are as follows:

1. Foster an environment where students from all backgrounds feel welcome and included, and to ensure that all students enjoy equal access to educational resources.*

2. Grow the percentage of women aviators in our program to 20% or more.

(*Note: the assessment Goal #1 is detailed under Criterion 3.2 above)

Assessment Plan

- Timeline: Annual
- Metrics: Demographic data provided by the College of Education Office of Assessment and Research
- Person(s) Responsible: Faculty

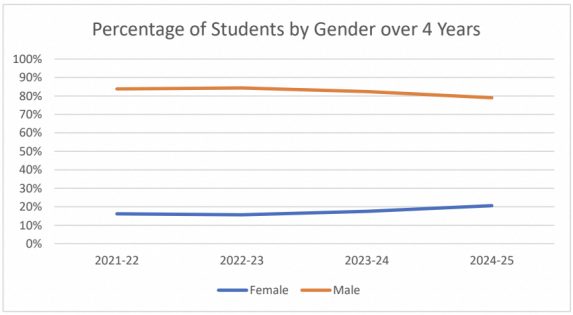
Assessment Process

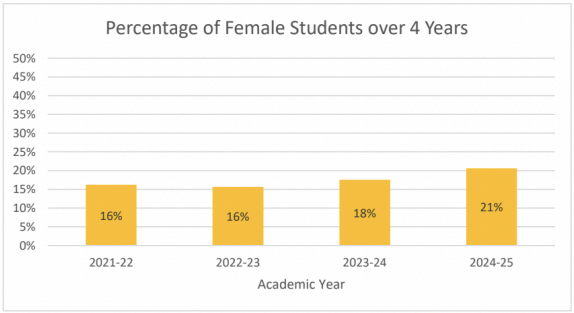
- Evidence: Demographic data provided by the College of Education Office of Assessment and Research (see next page)
- Analysis of the Evidence: The program has seen a slow but steady growth in the percentage of women students over the last several years (16.2% in AY 2021-2022; 15.6% in AY 2022-2023; 17.5% in AY 2023-2024; 20.6% in AY 2024-2025). This represents a total/average of 17.7% over the years presented; however, 20.6% in the current year is encouraging. Only one of nine faculty members is female, representing 11.1%. When including the four staff members (two men and two women), the percentage of women in the Aviation Department rises to 23%.
- Improvement Plans: The Aviation Department continues to encourage more women participation through marketing and sponsorships of student organizations such as Women in Aviation and Girls in Aviation and encourages STEM activities for these groups whenever possible. The department is seeking additional faculty members and hopes to gain more women professors when new positions open. The department will also participate in the Institution's larger Equity 2030 initiative.

DupID	(All)
DupAY	UndupAY

	Column Labels									
	2021-22		2022-23		2023-24		2024-25		Total Count of Tech Id	Total Percent
Row Labels	Count of Tech Id	Percent	Count of Tech Id	Percent	Count of Tech Id	Percent	Count of Tech Id	Percent		
Female	103	16.2%	105	15.6%	137	17.5%	167	20.6%	512	17.7%
Male	532	83.8%	566	84.4%	644	82.4%	640	79.0%	2382	82.2%
Unknown	0	0.0%	0	0.0%	1	0.1%	3	0.4%	4	0.1%
Grand Total	**635**	**100.0%**	**671**	**100.0%**	**782**	**100.0%**	**810**	**100.0%**	**2898**	**100.0%**

	2021-22	2022-23	2023-24	2024-25
Female	16%	16%	18%	21%
Male	84%	84%	82%	79%





Demographic data provided by the College of Education Office of Assessment and Research