AABInternational

	**MINNESOTA STATE UNIVERSITY, MANKATO**
	COLLEGE OF EDUCATION
	AVIATION PROGRAM, PROFESSIONAL FLIGHT
October 2022	**STUDENT ACHIEVEMENT DATA**

Minnesota State University, Mankato's mission statement sums up its commitment to excellence in all areas.

MSU MISSION STATEMENT

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.

MSU VISION STATEMENT

The MSU Vision Statement reflects the belief in the commitment to excellence, service to the community, and absolute commitment to student learning:

1) 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.

2) 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.

MSU STATEMENT OF GOALS

As a further commitment to excellence, MSU has adopted goals and values that are both philosophical and strategic in nature, stated in its Statement of Goals:

1) The University will foster an actively engaged and inclusive learning community based upon civility, trust, integrity, respect, and diversity in a safe, welcoming physical environment

2) The University will strengthen its role as a major provider of graduate education, offering intensive, scholarly graduate programs including collaborative efforts with other institutions and professionals, culminating in student expertise at professional levels

3) The University will enhance advising, support services, and learning experiences that aid students in identifying life goals, planning academic careers, and achieving timely graduation

4) The University will increase the quantity and quality of service to the state, region, and global community through collaborations, partnerships, and opportunities for cultural enrichment and continuous learning

5) The University will invest in the professional development of all members of the University Community and in the appropriate technologies necessary to achieve excellence in learning through teaching, research, and service

6) The University, as a whole and in all of its parts, will establish priorities through planning and assessment processes that anticipate our needs and focus our efforts and resources in support of our mission and goals

MINNESOTA STATE UNIVERSITY

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.

Assessment Measures

The department has four primary assessment measures. They are:

1. Institutional Undergraduate Student Learning Outcomes
2. Program Effectiveness
3. Program Quality
4. Course Effectiveness/Learning Outcomes

Institutional Undergraduate Student Learning Outcomes

Institutional Student Learning Outcomes were developed by the Assessment and Evaluation Sub Meet for the University, and vetted with the shared governance units of the campus community. The result of these efforts yielded the following 7 Institutional Undergraduate Student Learning Outcomes in November, 2010:

1. Academic Achievement - Students will demonstrate competence in specific areas of academic disciplines that will directly impact their career endeavors.
2. Civic Engagement - Students will demonstrate the awareness, knowledge, and skills to actively participate individually or collectively on issues of societal concern.
3. Communication - Students will demonstrate the ability to effectively communicate verbally, in writing, and through digital and/or visual media.
4. Critical Thinking - Students will demonstrate the ability to analyze situations and problems in order to identify and test solutions.
5. Global Citizenship - Students will demonstrate an awareness and knowledge of international cultures and societies.
6. Multiculturalism/Diversity - Students will demonstrate an awareness and knowledge of social, cultural and personal values of others.
7. Self-Directed Learning - Students will demonstrate the ability to autonomously acquire knowledge and develop skills.

Four of the seven institutional student learning outcomes for Minnesota State University - Mankato are integrated into the Aviation Program curriculum and assessed.

Program Effectiveness

Program effectiveness is assessed on 7 measures, ***Department Student Learning Objectives***, as adopted by the Industry Advisory Board and the Faculty. They are:

1. To express oneself clearly and quickly 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 team (crew).
5. Demonstrate a basic understanding of the leadership and managerial skills you will need to be an effective leader in the aviation industry.
6. Perform basic research, interpret, and analyze the data, then make worthwhile presentations based on that research.

7. Demonstrate knowledge, skills, and attributes necessary to be a success in your discipline.

All seven of these program effectiveness measures, or *Department Student Learning Objectives*, are measured across the entire curriculum leading to the B.S. Aviation.

Program Quality—AABI Compliance

The program is assessed against the AABI criteria to ensure quality of the Aviation Program as measured against other accredited institutions. Those criteria are:

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.

In addition the Aviation Program assesses the core AABI requirements.

AABI Core Student Learning Outcomes

3.3.2.1. **Professionalism**: Knowledge of attributes of an aviation professional, career planning, and certification

3.3.2.2. **Aircraft Design**: Knowledge of aircraft design, performance, operating characteristics, and maintenance

3.3.2.3. **Safety/Human Factors**: Knowledge of aviation safety and human factors

3.3.2.4. **National/International Law:** Knowledge of national and international aviation law, regulations, labor relations

3.3.2.5. **Airports/Airspace:** Knowledge of airports, airspace, and air traffic control

3.3.2.6. **Weather/Environment:** Knowledge of meteorology and environmental issues

The Aviation Program measures all of these AABI criteria against the program outcomes, or Department Student Learning Outcomes.

Course Effectiveness/Learning Outcomes

Individual courses have learning outcomes to measure course effectiveness. Those learning outcomes are managed through the curriculum process. All course learning outcomes are assessed through the coursework submitted by students.

ASSESSMENT PLAN

Assessment of Aviation Program Student Learning Outcomes Plan

Academic Years of Plan: 20XX -20XX

College or Area: College of Education

Department or Program: Aviation, Bachelor of Science (B.S.)

Check here if your assessment plan covers all undergraduate degree programs: [X]

Student Learning Outcomes (Knowledge, Skills, Abilities)	Related University Goal(s)	Related College/ Department/ Program Goal(s) or accreditation standards AABI Accreditation	Method of Assessment (How will the outcome be measured)	Who will be Assessed (Students from what courses-population?)	When Assessed (Date)	Standard of Mastery/Criterion	Reason for Assessment. What is hoped to be learned? (As applied to dept/pgm competencies)
1. To express oneself clearly and quickly in written and oral presentations.	Goal 1: Change the world by collaboratively addressing our planet's most challenging problems. Goal 2: Foster the thriving and robust academic culture of a doctoral university. MSU SLO 3: Communication - Students will demonstrate the ability to effectively communicate verbally, in writing, and through digital and/or visual media.	AABI 3.3.1e: communicate effectively, using both written and oral communication skills AABI 3.3.2.1 Professionalism AABI 3.3..2.3 Safety/Human Factors	• Written proposals, reports, case studies, and the related oral presentations of those efforts. • Capstone course	334 Airline Mgmt 360 Flight Instructor 437 Av Safety 450 Pro Pilot Crs	**Course:** Each semester **Department:** At least once during student's program / end of program capstone **University:** Annual assessment report from department to University Assessment Office. **Accreditation:** Every 5 years to program accreditation body and academic prgm review cmte.	**20XX:** Grades received for course performance based on individual assignments, exams and other responsibilities. A = Highly proficient. B/C = Proficient D/F = Not proficient. **20XX:** As above.	Rationale: To assess whether students can communicate effectively. If student trends show deficiencies in these areas, curriculum revisions can be targeted.

Student Learning Outcomes (Knowledge, Skills, Abilities)	Related University Goal(s)	Related College/ Department/ Program Goal(s) or accreditation standards AABI Accreditation	Method of Assessment (How will the outcome be measured)	Who will be Assessed (Students from what courses-population?)	When Assessed (Date)	Standard of Mastery/Criterion	Reason for Assessment. What is hoped to be learned? (As applied to dept/pgm competencies)
2. Instill the importance of being able to continue training, education, and intellectual development after graduation to remain current on industry trends	Goal 1: Change the world by collaboratively addressing our planet's most challenging problems. Goal 5: Measure and continuously improve our work to ensure excellence in all we do. MSU SLO 7: Self-Directed Learning - Students will demonstrate the ability to autonomously acquire knowledge and develop skills.	AABI 3.3.1f: engage in and recognize the need for life-long learning AABI 3.3.2.1 Professionalism	• Capstone course • Written Exams • Lesson Plans	101 World of Avia 150 Private Pilot 360 Flt Instructor 450 Pro Pilot Crs	**Course:** Each semester **Department:** At least once during student's program / end of program capstone **University:** Annual assessment report from department to University Assessment Office. **Accreditation:** Every 5 years to program accreditation body and academic pgm review cme.	**20XX:** Grades received for course performance based on individual assignments, exams and other responsibilities. A = Highly proficient. B/C = Proficient D/F = Not proficient. **20XX:** As above.	Rationale: To ensure continuous improvement in our industry and our graduate. If student trends show deficiencies in these areas, curriculum revisions can be targeted.

Student Learning Outcomes (Knowledge, Skills, Abilities)	Related University Goal(s)	Related College/ Department/ Program Goal(s) or accreditation standards AABI Accreditation	Method of Assessment (How will the outcome be measured)	Who will be Assessed (Students from what courses-population?)	When Assessed (Date)	Standard of Mastery/Criterion	Reason for Assessment. What is hoped to be learned? (As applied to dept/pgm competencies)
3. Demonstrate the ability to collect information to think critically, make developed decisions, and problem solve.	Goal 1: Change the world by collaboratively addressing our planet's most challenging problems. Goal 2: Foster the thriving and robust academic culture of a doctoral university. MSU SLO 4: Critical Thinking - Students will demonstrate the ability to analyze situations and problems in order to identify and test solutions.	AABI 3.3.1g: assess contemporary issues AABI 3.3.1j: apply pertinent knowledge in identifying and solving problems AABI 3.3.2.2 Aircraft Design	• Written proposals, reports, case studies, and the related oral presentations of those efforts. • Capstone course	201 Theory of Flight 334 Aviation Mgmt 450/451 Pro Pilot Crs/Lab 455 Acft Perf	**Course:** Each semester **Department:** At least once during student's program / end of program capstone **University:** Annual assessment report from department to University Assessment Office. **Accreditation:** Every 5 years to program accreditation body and academic pgm review cme.	**20XX:** Grades received for course performance based on individual assignments, exams and other responsibilities. A = Highly proficient. B/C = Proficient D/F = Not proficient. **20XX:** As above	Rationale: To determine if students are able to research potential solutions to industry issues. If student trends show deficiencies in these areas, curriculum revisions can be targeted.

Student Learning Outcomes (Knowledge, Skills, Abilities)	Related University Goal(s)	Related College/ Department/ Program Goal(s) or accreditation standards AABI Accreditation	Method of Assessment (How will the outcome be measured)	Who will be Assessed (Students from what courses-population?)	When Assessed (Date)	Standard of Mastery/Criterion	Reason for Assessment. What is hoped to be learned? (As applied to dept/pgm competencies)
4. Work collaboratively and effectively as part of a team (crew).	Goal 1: Change the world by collaboratively addressing our planet's most challenging problems. Goal 5: Measure and continuously improve our work to ensure excellence in all we do. MSU SLO: Academic Achievement - Students will demonstrate competence in specific areas of academic disciplines that will directly impact their career endeavors.	AABI 3.3.1c: work effectively on multi-disciplinary and diverse teams AABI 3.3.2.1 Professionalism	• Team assignments and active learning techniques to provide opportunities to collaborate on critical thinking exercises, and related group projects. • Capstone course	334 Aviation Mgt 361 Initial Flt Instruc 437 Av Safety 450451 Pro Pilot Crs	**Course:** Each semester **Department:** At least once during student's program / end of program capstone **University:** Annual assessment report from department to University Assessment Office. **Accreditation:** Every 5 years to program accreditation body and academic pgm review cme.	**20XX:** Grades received for course performance based on individual assignments, exams and other responsibilities. A = Highly proficient. B/C = Proficient D/F = Not proficient. **20XX:** As above	Rationale: To determine if students are able to work collaboratively on multi-disciplinary and diverse teams. If student trends show deficiencies in these areas, curriculum revisions can be targeted.

Student Learning Outcomes (Knowledge, Skills, Abilities)	Related University Goal(s)	Related College/ Department/ Program Goal(s) or accreditation standards AABI Accreditation	Method of Assessment (How will the outcome be measured)	Who will be Assessed (Students from what courses-population?)	When Assessed (Date)	Standard of Mastery/Criterion	Reason for Assessment. What is hoped to be learned? (As applied to dept/pgm competencies)
5. Demonstrate a basic understanding of the leadership and managerial skills you will need to be an effective leader in the aviation industry.	Goal 1: Change the world by collaboratively addressing our planet's most challenging problems. Goal 5: Measure and continuously improve our work to ensure excellence in all we do. MSU SLO 1: Academic Achievement - Students will demonstrate competence in specific areas of academic disciplines that will directly impact their career endeavors.	AABI 3.3.1d: make professional and ethical decisions AABI 3.3.1h: use the techniques, skills, and modern technology necessary for professional practice AABI 3.3.1k: apply knowledge of business sustainability to aviation issues AABI 3.3.2.1 Professionalism	• Written examinations • Practical skills demonstrations • Team projects • Written proposals, reports, case studies, and the related oral presentations of those efforts. • Capstone course	240 Instrument Pilot 250 Commercial Pilot 334 Airline Ops 340 Flight Operations 432 Av Law 436 Flight Ops/Proc 450/451 Pro Pilot Lab	**Course:** Each semester **Department:** At least once during student's program / end of program capstone **University:** Annual assessment report from department to University Assessment Office. **Accreditation:** Every 5 years to program accreditation body and academic pgm review cme.	**20XX:** Grades received for course performance based on individual assignments, exams and other responsibilities. A = Highly proficient. B/C = Proficient D/F = Not proficient. **20XX:** As above	Rationale: To determine if students are "street ready" to perform in a wide range of positions within the industry. If student trends show deficiencies in these areas, curriculum revisions can be targeted.

Student Learning Outcomes (Knowledge, Skills, Abilities)	Related University Goal(s)	Related College/ Department/ Program Goal(s) or accreditation standards AABI Accreditation	Method of Assessment (How will the outcome be measured)	Who will be Assessed (Students from what courses-population?)	When Assessed (Date)	Standard of Mastery/Criterion	Reason for Assessment. What is hoped to be learned? (As applied to dept/pgm competencies)
6. Perform basic research, interpret, and analyze the data, then make worthwhile presentations based on that research	Goal 1: Change the world by collaboratively addressing our planet's most challenging problems. Goal 2: Foster the thriving and robust academic culture of a doctoral university. Goal 5: Measure and continuously improve our work to ensure excellence in all we do. MSU SLO 4: Critical Thinking - Students will demonstrate the ability to analyze situations and problems in order to identify and test solutions.	AABI 3.3.1b: analyze and interpret data; AABI 3.3.2.2 Aircraft Design AABI 3.3.2.3 Safety/Human Factors	• Written proposals, reports, case studies, and the related oral presentations of those efforts. • Written Exams • Capstone course	201 Theory of Flight 437 Aviation Safety 455 Acft Perf 450 Pro Pilot Course	**Course:** Each semester **Department:** At least once during student's program / end of program capstone **University:** Annual assessment report from department to University Assessment Office. **Accreditation:** Every 5 years to program accreditation body and academic pgm review cme.	**20XX:** Grades received for course performance based on individual assignments, exams and other responsibilities. A = Highly proficient. B/C = Proficient D/F = Not proficient. **20XX:** As above.	Rationale: To determine if students are able to research, analyze, and interpret the data our industry generates and to formulate presentations on trends observed. If student trends show deficiencies in these areas, curriculum revisions can be targeted.

Student Learning Outcomes (Knowledge, Skills, Abilities)	Related University Goal(s)	Related College/ Department/ Program Goal(s) or accreditation standards AABI Accreditation	Method of Assessment (How will the outcome be measured)	Who will be Assessed (Students from what courses-population?)	When Assessed (Date)	Standard of Mastery/Criterion	Reason for Assessment. What is hoped to be learned? (As applied to dept/pgm competencies)
7. Demonstrate knowledge, skills, and attributes necessary to be a success in your discipline.	Goal 1: Change the world by collaboratively addressing our planet's most challenging problems. Goal 5: Measure and continuously improve our work to ensure excellence in all we do. MSU SLO 1: Academic Achievement - Students will demonstrate competence in specific areas of academic disciplines that will directly impact their career endeavors.	AABI 3.3.1a: apply mathematics, science, and applied sciences to aviation-related disciplines AABI 3.3.1i: assess the national and international aviation environment AABI 3.3.1h: use the techniques, skills, and modern technology necessary for professional practice AABI 3.3.2.4 National and international law AABI 3.3.2.5 Airports/Airspace AABI 3.3.2.6 Weather/Envir	• Written examinations • Practical skills demonstrations • Team projects • Written proposals, reports, case studies, and the related oral presentations of those efforts. • Capstone course	101 World of Avia 150 Private Pilot 201 Theory of Flight 240 Instrument Pilot 338 Adv Acft Sys 432 Av Law 436 Adv Flt Ops 451 Pro Pilot Lab 455 Acft Perf All Flight Labs	**Course:** Each semester **Department:** At least once during student's program / end of program capstone **University:** Annual assessment report from department to University Assessment Office. **Accreditation:** Every 5 years to program accreditation body and academic pgm review cme.	**20XX:** Grades received for course performance based on individual assignments, exams and other responsibilities. A = Highly proficient. B/C = Proficient D/F = Not proficient. **20XX:** As above	Rationale: To determine if students are meet industry needs as identified by the Industry Advisory Board as promulgated through IAB Goals and curriculum. If student trends show deficiencies in these areas, curriculum revisions can be targeted.

Mitigation Plan – What will the department or program do with the results?

Assessment Plan Responsibilities

Category	Responsible Entity
Course/Student Learning Outcomes	Faculty assigned to course Department assessment coordinator Oversight by faculty at annual assessment meeting
Course Standards by Level (Writing, Oral) Rubrics	Department assessment committee Faculty at annual retreat
Program Learning Outcomes	Department assessment coordinator Department faculty at annual assessment meeting Industry Advisory Board
Department Learning Outcomes	Department assessment coordinator Department faculty at annual assessment meeting Industry Advisory Board
Academic Program Review and Accreditation Process	All department faculty

The assessment, analysis, and review of these data, when combined with other information such as entry and exit surveys, comparative cohort and modality performance (student and cohort groups) not individual student data), feedback from internal and external stakeholders, student self-assessment, a recurring academic program review self-study, evolving needs of the profession, et. al. inform the design and decision making of/for this program in a multi-tiered, interdependent manner by answering these questions, and providing the foundation for continuous improvement through annual operational review and reporting.

Periodic review of Student Learning Objectives (as they meet the needs of industry) coincides with a review of department goals (AABI criteria) and program goals (industry) to fit MSU institutional strategic goals and institutional student learning objectives. Specifically:

Outcomes & Goals (academic rigor, course availability, student learning outcomes and course objectives/outcomes):

- Are course requirements realistic and consistently achievable by students given resources & expectations?
- Are there adequate resources for multiple modalities in regards to faculty, technology, and distance learning opportunities?
- Does assessment demonstrate consistent outcomes between modalities and instructors for comparative analysis?
- Are student needs, including availability, modality, currency, and applicability met through each modality employed?

Department Goals & Objectives

- Does program design meet the needs of the profession? Does design reflect current and evolving needs?
- Do sufficient resources exist to ensure a sustainable pattern of course offerings? Can this be forecast?
- Can program health be accurately articulated? What are systematic questions we should ask/explore?
- Can the results of these assessments be used to help the program evolve in a timely and appropriate manner?

STUDENT RETENTION RATES

Student retention rate for the aviation program has improved steadily over the past several years. Normally the largest attrition is between the first and second year. That current percentage is around 20-23%. Once a student is engaged in the instrument pilot flight lab, the retention rate to graduation rises to around 97%.

GRADUATION RATES

The graduation rate over the last 5 years continues to increase. Our 4 year graduation rate sits at 51% with our 6 year graduation rate approaching 75%. The 4 year graduation rate is primarily impacted by in-completed flight labs that are still in progress at the end of a 4 year program.

As the size of the program has increased significantly, we are now graduating on average 60 students each semester, over 100 students each year, matriculating with a Bachelor of Science in Aviation.

RATES AND TYPES OF GRADUATES EMPLOYMENT

Per Minnesota State University Institutional Research, the latest graduate survey (2017/2018) showed 92% of Aviation Program graduates were employed within 1 year of graduation. 95% of our Professional Flight students are employed as flight instructors immediately upon graduation. Within 2 years of graduation, the large majority of the graduates are flying for a domestic airline as aircrew—primarily Endeavor, SkyWest, Republic, or Sun Country Airlines. A small percentage go into the military with the remainder of the pilots heading into the corporate flight or other area of general aviation.