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 include a reading program to remain current.
3. Demonstrate the ability to read and comprehend literature to be able to solve problems in the field.
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 you develop, and make useful 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 also 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]

<table>
<thead>
<tr>
<th>Student Learning Outcomes (Knowledge, Skills, Abilities)</th>
<th>Related University Goal(s)</th>
<th>Related College/Department/Program Goal(s) or accreditation standards</th>
<th>Method of Assessment (How will the outcome be measured)</th>
<th>Who will be Assessed (Students from what courses/population?)</th>
<th>When Assessed (Planned)</th>
<th>Standard of Mastery/Criterion</th>
<th>Reason for Assessment. What is hoped to be learned? (As applied to dept/pgm competencies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To express oneself clearly and quickly in written and oral presentations.</td>
<td>Goal 1: Change the world by collaboratively addressing our planet's most challenging problems.</td>
<td>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</td>
<td>• Written proposals, reports, case studies, and the related oral presentations of those efforts. • Capstone course</td>
<td>334 Airline Mgmt 360 Flight Instructor 437 Av Safety 450 Pro Pilot Crs</td>
<td>30XX: Each semester 30XX: 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.</td>
<td>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.</td>
<td>Rationale: To assess whether students can communicate effectively. If student trends show deficiencies in these areas, curriculum revisions can be targeted.</td>
</tr>
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</table>

**AABI Accreditation**

**Related University Goal(s):**

- Change the world by collaboratively addressing our planet’s most challenging problems.
- 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.
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<tr>
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<tr>
<td>2. Instill the importance of being able to continue training, education, and intellectual development after graduation to include a reading program to remain current.</td>
<td>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 Self-Directed Learning - Students will demonstrate the ability to autonomously acquire knowledge and develop skills.</td>
<td>AABI 3.3.1f: engage in and recognize the need for lifelong learning AABI 3.3.2.1 Professionalism</td>
<td>• Capstone course  • Written Exams  • Lesson Plans</td>
<td>101 World of Avia 150 Private Pilot 360 Flt Instructor 450 Pro Pilot Crs</td>
<td>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.</td>
<td>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.</td>
<td>Rationale: To ensure continuous improvement in our industry and our graduate. If student trends show deficiencies in these areas, curriculum revisions can be targeted.</td>
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<tr>
<td>3. Demonstrate the ability to read and comprehend literature to be able to solve problems in the field.</td>
<td>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.</td>
<td>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</td>
<td>• Written proposals, reports, case studies, and the related oral presentations of those efforts. • Capstone course</td>
<td>201 Theory of Flight 334 Aviation Mgmt 450/451 Pro Pilot Crs/Lab 455 Acft Perf</td>
<td>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.</td>
<td>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</td>
<td>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.</td>
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<td>4. Work collaboratively and effectively as part of a team (crew).</td>
<td>Goal 1: Change the world by collaboratively addressing our planet’s most challenging problems.</td>
<td>AABI 3.3.1c: work effectively on multi-disciplinary and diverse teams AABI 3.3.2.1 Professionalism</td>
<td>• Team assignments and active learning techniques to provide opportunities to collaborate on critical thinking exercises, and related group projects. • Capstone course</td>
<td>334 Aviation Mgt 361 Initial Fit Instruc 437 Av Safety 450451 Pro Pilot Crs</td>
<td>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</td>
<td>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.</td>
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MSU SLO: Academic Achievement - Students will demonstrate competence in specific areas of academic disciplines that will directly impact their career endeavors.
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<td>5. Demonstrate a basic understanding of the leadership and managerial skills you will need to be an effective leader in the aviation industry.</td>
<td>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.</td>
<td>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</td>
<td>• Written examinations • Practical skills demonstrations • Team projects • Written proposals, reports, case studies, and the related oral presentations of those efforts. • Capstone course</td>
<td>240 Instrument Pilot 250 Commercial Pilot 334 Airline Ops 340 Flight Operations 432 Av Law 436 Flight Ops/Proc 450/451 Pro Pilot Lab</td>
<td>Course: Each semester Department: At least once during student’s program / end of program capstone University: Annual assessment report from department to University Accreditation Office. Accreditation: Every 5 years to program accreditation body and academic pgm review cme.</td>
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<td>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.</td>
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<td>6. Perform basic research, interpret, and analyze the data you develop, and make useful presentations based on that research.</td>
<td>Goal 1: Change the world by collaboratively addressing our planet’s most challenging problems.</td>
<td>AABI 3.3.1b: analyze and interpret data; AABI 3.3.2.2 Aircraft Design AABI 3.3.2.3 Safety/Human Factors</td>
<td>• Written proposals, reports, case studies, and the related oral presentations of those efforts. • Written Exams • Capstone course</td>
<td>201 Theory of Flight 437 Aviation Safety 455 Acft Perf 450 Pro Pilot Course</td>
<td>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.</td>
<td>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.</td>
<td>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.</td>
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<td>7. Demonstrate knowledge, skills, and attributes necessary to be a success in your discipline.</td>
<td>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.</td>
<td>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</td>
<td>• Written examinations • Practical skills demonstrations • Team projects • Written proposals, reports, case studies, and the related oral presentations of those efforts. • Capstone course</td>
<td>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</td>
<td>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.</td>
<td>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</td>
<td>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.</td>
</tr>
</tbody>
</table>
Mitigation Plan – What will the department or program do with the results?

Assessment Plan Responsibilities

<table>
<thead>
<tr>
<th>Category</th>
<th>Responsible Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course/Student Learning Outcomes</td>
<td>Faculty assigned to course</td>
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<td>Department assessment coordinator</td>
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<tr>
<td></td>
<td>Oversight by faculty at annual retreat</td>
</tr>
<tr>
<td>Course Standards by Level (Writing, Oral)</td>
<td>Department assessment committee</td>
</tr>
<tr>
<td>Rubrics</td>
<td>Faculty at annual retreat</td>
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<tr>
<td>Program Learning Outcomes</td>
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<td>University Assessment Office</td>
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<td>Industry Advisory Board</td>
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<tr>
<td>Academic Program Review and Accreditation Process</td>
<td>All department faculty</td>
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</tbody>
</table>

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 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?

**GRADUATION RATES**

The graduation rate over the last 10 years has steadily increased with the current rate being 58.3%.

Each of the previous 2 years the MSU Aviation Program awarded between 50 and 60 Bachelor of Science degrees in Aviation.

**RATES AND TYPES OF GRADUATES EMPLOYMENT**

Per Minnesota State University Institutional Research, the latest graduate survey (2015/2016) showed 90% of Aviation Program graduates were employed within 1 year of graduation. Over 90% of new graduates remained at MSU as flight instructors immediately following graduation.

Within 2 years of graduation, the majority of these students were flying in a domestic airline as aircrew. The majority of graduates were employed as aircrew at a wide range of domestic airlines. The airlines most favored were Endeavor, Sky West, Republic, Air Wisconsin, with the most represented major airlines being Delta, United, UPS, Southwest, Sun Country, and Fed Ex.

A smaller number of graduates were flying as aircrew for an overseas airline, were employed in the aviation industry (but not as aircrew—Jeppesen, Aerosim), and in various branches of the US military.

The MSU Aviation Department conducted its own survey—see the results below.

**AVIATION PROGRAM ASSESSMENT PLAN**

**Assessment Methods/Techniques**

Program assessment is an ongoing process with the data collected used to continuously evaluate the aviation program. The program uses the following methods to gather both direct and indirect assessments of student learning.

**Assessment 1 FAA Written Exam:**

Written FAA tests are required five times throughout the program to ensure compliance with FAA certificates and levels of training. Students are required to complete 3 practice tests in the phase of training they are currently completing with a score of 90% or better before they can complete the FAA written exam. If a student fails a written test, they are individually mentored by their flight instructor and MUST complete the written exam before they move on to the associated practical examination and subsequent certificates. Students usually complete these assessments in their first two or sometimes three years.
Assessment 2 FAA Practical Flight Exams

This assessment demonstrates the flight aptitude relative to ACS/PTS requirements of students at the basic level (Private Pilot) through professional pilot level (Commercial AMEL) and flight instructor level in the MEI, CFI, and CFII.

Assessment 3 Capstone Simulator Course-Subjective Evaluation

The assessment evaluates the ability of students at the advanced level of flight training. Using the CRJ 700 CPT, students must use information and knowledge they have acquired throughout the program’s flight and classroom courses and apply it in a practical, real-world manner. Each lesson is graded with comments required regarding all levels of performance to include CRM, systems knowledge, communication, IFR knowledge, and weather. The course uses scenario based training and realistic problem solving.

Assessment 4 Classroom course exams, presentations, research papers

Individual course assessments are completed through exams, quizzes, graded presentations, research papers, and other types of classroom assessment. The standard for proficiency in the assessed criterion is a 70% or higher on the assessment measure. The assessment information is reviewed and shared at the annual Program Assessment Meeting to provide feedback to meeting the program student learning outcome goals.

Assessment 5 Professional Subject Area Expertise:

Students are required to complete a “Current issues in aviation” presentation in AVIA 450 that encompasses a subject area expertise in an issue the aviation is currently facing. This assessment demonstrates the students’ ability to master a subject area related to aviation as well as hone in on the research and presentation skills necessary for an informed aviation professional.

Assessment 6 Demonstrated Instructional Knowledge:

Students will complete lesson plan briefings (teaching lesson) as part of AVIA 360: Flight Instructor Ground Course. Students will be required to present on a content area they choose. Emphasis is also placed on context, delivery, and presentation skills

Assessment 7 Student Surveys

Student surveys can be used to assess certain student, alumni, and other areas which require assessment.

Assessment 8 Inspection checklists will be used to assess facilities, equipment, and institutional support.

**ADDITIONAL DATA:**

**STUDENT INFORMATION:**

At the end of each semester, the student database will be updated to include who has entered the program (identified by when they first took AVIA 101 or higher course if transferring in), and who has left the program, changed academic standing, or graduated. This database will be maintained by the accreditation
coordinator with input from the admissions office, other faculty, and the Office of Institutional Research (as necessary to gather data).

Timeline: Collected every Fall semester, reported yearly at assessment meeting.

Student Assessment

This assessment determines the participation rate of students in clubs/organizations/extra-curricular activities as part of their college experience. A survey of the number of student engaged in Aviation Department student organizations will be conducted. This allows the students to have a voice in the program and help increase communication between the faculty/airport/staff and students.

(Scheduled every other year.)

Goals in this area include improve recruiting of students to ensure a solid number of new, entering aviation students, improve overall retention rates for the 4 year program, and more engagement in applying for scholarships.

Alumni Survey:

Attempts to survey aviation alumni are made every four years via an online survey tool. Each attempt is made to include all graduates of the aviation program. Normally this is conducted through the Alumni Office. This information is added to the assessment information on the website as well.

EVALUATION OF FACULTY/STAFF:

All faculty members and full time staff are evaluated based on the Minnesota State University’s faculty union’s contract requirement for Professional Development. Data is obtained from faculty professional development reports using verifiable outcomes. Any shortcomings are listed in each person’s review and a plan of improvement may be developed if needed.

The primary goal in this area is to show successful tenure/promotion for faculty when they are eligible to apply. An additional goal is to ensure an adequate number of faculty are in place to meet the needs of the program (or to make administration aware of the shortfall).

Timeline: reviewed every year by department head and Dean, changes as necessary to complete mission.

FACILITIES, EQUIPMENT, SUPPORT

Equipment, aircraft, building, and simulator assessment are continually assessed. MSU Physical plant oversees all maintenance of the on campus facilities and the city of Mankato is responsible for airport facilities. North Star Aviation, in consultation with the Aviation Department, determine the need for new or additional aircraft and flight simulators. Any repairs at the airport are completed through the standard process using the Airport Manager and city contractors.

Aircraft are replaced based on need and viability in the program. There is a mix of new and older aircraft in the training fleet with the stipulation that at least 70% of the fleet be an average age cannot be more than 10 years. With the unprecedented recent growth of our program, a significant amount of new aircraft have been added to the fleet.
The primary goals in this area include ensuring enough aircraft and training space are provided at the airport to meet the growing student needs, the aircraft are well maintained, and ensuring adequate office space is available for department faculty.

Based on projected usage with current program growth as the measure, we consider a need of one aircraft per 600 hours per primary trainer and 400 on complex/multi aircraft.

The space requirements and infrastructure of the facilities in use by the MSU Aviation Program are reviewed and assessed using a checklist to ensure adequate facilities are in use for our students and instructors.

Timeline: Evaluated every year or as necessary to accomplish goals of the program.

INSTITUTIONAL STRUCTURE AND SUPPORT

The institutional structure has been in flux the past number of years within the aviation program. Due to the growth of our program, we have been operating with a minimum staff and rely heavily on adjunct professors. In addition, the fixed term faculty position has had multiple personnel filling that position within the same time period. Typically, the structure and support is reviewed on a yearly basis and recommendations are forwarded up the chain to correct any shortcomings and to increase program effectiveness. All the aviation program team members are all involved in determining the needs of the program.

The primary goal in this area is to ensure University administration is aware of and responsive to the increased needs of the Aviation Program as it continues to grow.

Timeline: Requests for institutional support forwarded to College of Education Dean yearly or as needed.

AVIATION SAFETY CULTURE:

The MSU aviation safety program is in collaboration and closely tied to North Star Aviation, the flight training provider for MSU. North Star Aviation has an active SMS program that governs operations at the airport. Both MSU staff and students have input to all areas of the SMS. Monthly Safety Review Boards are conducted with a cross-section of representation from the airport, maintenance, flight ops, MSU, and students.

The primary goal is to keep safety first and foremost in the flight training arena. In addition, maintaining monthly safety review meetings is critical to keeping all stakeholders updated on all safety related issues. Finally, maintaining an active anonymous reporting system is a top goal.

See the North Star Aviation SMS for complete details on that program.

INDUSTRY RELATIONSHIPS/PARTNERSHIPS

Relations with industry are addressed via the Industry Advisory Board but also with employer/airline relations and alumni relations with the faculty. The IAB addresses specific information about the program and offers resolutions to help address any shortcomings and maintain program effectiveness. Additionally, they serve as mentors to students and guest speakers in class. Industry members are routinely called upon to talk in classes, help address specific issues, or help with interview preparation. Continuous review and analysis is done to assure effectiveness of all program desired outcomes.
With several airline pathway programs attached to the program, we maintain close relationships with the primary recruiters from these airlines. In addition, with the Delta Air Lines Propel program startup, we have established good communication and processes to ensure the success of that program. The three Delta liaison people are in frequent communication with the program.

A major goal in this area is to maintain a minimum of two meetings per year of the industry advisory board with active participation of various members in other areas of the program. In addition, active communication with the airline partners should result in numerous campus visits or other student contact by the various airline partners of the MSU Aviation Program.

Timeline: yearly meeting in spring semester

**Instructional Control, Safety & Oversight (Contract Training)**

MSU uses a flight training contractor, North Star Aviation to conduct all the flight training for the professional flight degree. The standard contract length is 3 years with an option to extend the contract for 2 additional years. As the 3 year point approaches, an assessment of the contractor is completed to determine their performance based on the contract with MSU. Based on the results of this assessment, the contract may be extended for 2 additional years.

At the 5 year point (if not sooner), a RFP is published to award the flight training contract.

At least one designated faculty member interfaces with North Star Aviation on a regular and continuous basis to ensure proper oversight. The oversight includes all aspects of the flight training with continuous assessments and adjustments made as required.

The primary goal in this area is to maintain the best flight training contractor possible for the Minnesota State University Aviation Program.
Survey Results sent to Graduates May 2018

What is your graduation year?

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
<th>prior to 2014</th>
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<tbody>
<tr>
<td>Answered: 72</td>
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Do you feel the Aviation program at Minnesota State University, Mankato helped you develop the skills to...

1. Apply math, science and applied sciences to aviation-related disciplines.
2. Analyze and interpret data
3. Work effectively on multi-disciplinary and diverse teams
4. Make professional and ethical decisions
5. Communicate effectively using both written and oral communication skills
6. Engage in and recognize the need for life-long learning
7. Assess contemporary issues
8. Use the techniques, skills and modern technology necessary for professional practice
9. Assess the national and international aviation environment
10. Apply pertinent knowledge in identifying and solving problems
11. Apply knowledge of business sustainability to aviation issues.

What was your program emphasis?

- Professional Flight
- Aviation Management
- Aeronautics

Since graduation have you spent any amount of time working in the aviation field?

- No
- Yes

Since graduation have you worked in an area related to or closely related to your program emphasis?

- Yes
- No

Are you employed with a regional, national or international carrier?

- Yes
- No

As a graduate of the Aviation program at Minnesota State University, Mankato, do you feel you can effectively...

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 of national and international aviation law, regulations and labor issues on aviation operations
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