

Western Michigan University

College of Aviation

Assessment Plan



WESTERN MICHIGAN UNIVERSITY

College of Aviation

Table of Contents

0. Assessment Plan Introduction – College of Aviation	5
1. Students	6
1.1 Admissions.....	6
1.2 Academic Advising.....	6
1.3 Student Assessment Measurement	6
2. Program Mission and Educational Goals	7
2.1 Western Michigan University Mission Statement.....	7
2.2 College of Aviation Mission Statement	7
2.3 College of Aviation Vision Statement	7
2.4 College of Aviation Core Values	7
2.5 Program Educational Goals.....	8
2.6 Program Mission Statements	8
2.6.1. Aviation Flight Science.....	8
2.6.2 Aviation Management and Operations	8
2.6.3 Aviation Technical Operations.....	9
3. Student Learning Outcomes	10
3.1 WMU WES	10
3.3 Aviation Program Student Learning Outcomes.....	11
3.3.1 Aviation Flight Science Learning Outcomes.....	11
3.3.2 Aviation Management and Operations Learning Outcomes.....	11
3.3.3 Aviation Technical Operations Learning Outcomes	12
3.4 Course Learning Outcomes	12
3.4.1 Assessing Course Learning Outcomes	12
3.5 Relationship between AABI and Aviation Courses in Major	12
3.5.1 Aviation Flight Science (AFSJ) Major Courses and AABI	13
3.5.2 Aviation Management and Operations (AMOJ) Major Courses and AABI	14
3.5.3 2023 Operations (ATOJ) Major Courses and AABI Catalog Aviation Technical	15
3.5.4 Previous Operations (ATOJ) Major Courses and AABI Catalog Aviation Technical	16
3.6 Assessment of Outcomes	17
3.7 Method of Evaluation and Feedback.....	17
3.8 Assessment Tools and Activities.....	17
3.8.1 WMU Office of Institutional Research (IR) Data Collection.....	18
3.8.2 COA Student Survey.....	18

3.8.3 Certification Examination Performance Audit.....	18
3.8.4 Course Level Outcome Assessment.....	18
3.8.5 COA Faculty and Staff Retreat and Faculty Meetings.....	18
3.8.6 COA Committee Meetings	18
3.8.7 Industry Advisory Board	18
3.8.8 Senior Exit Survey	19
3.8.9 Alumni Survey.....	19
3.9 Assessment Schedule	19
3.10 Results of Assessment	19
4. Curriculum.....	20
4.1 Curriculum Review University Level	20
4.2 Curriculum Review Department Level.....	20
5. Faculty and Staff	21
5.1 Faculty and Staff Evaluation	21
6. Facilities, Equipment, and Services	22
6.1 Facilities	22
6.2 Equipment	22
6.3 Services.....	22
7. Aviation Safety Culture and Program	23
7.1 Safety Program Objectives	23
7.2 Safety Program	23
7.3 Safety Committee	24
7.4 Safety Reporting System	24
8. Relations with Industry	25
8.1 College Industry Advisory Board	25
8.2 Alumni Relations.....	26
8.3 Assessment.....	26
9. Diversity, Equity, and Inclusion (DEI)	27
10. Assessment Implementation.....	28
10.1 Students.....	29
10.2 Program Mission and Educational Goals.....	29
10.3 Student Learning Outcomes	29
10.4 Curriculum	30

10.5 Faculty and Staff 30

10.6 Facilities, Equipment, and Services 31

10.7 Aviation Safety Culture and Program 31

10.8 Relations with Industry..... 32

10.9 Diversity, Equity, and Inclusion 32

0. Assessment Plan Introduction – College of Aviation

The College of Aviation (COA) began in 1939 at Western Michigan University (WMU) and became a standalone college within the university in 1999. The College of Aviation offers three baccalaureate programs: Aviation Flight Science, Aviation Management and Operations, and Aviation Technical Operations. Any additional programs added in the future will be subject to the assessment program that is in place for the other programs.

Western Michigan University requires each department/program to have an approved assessment plan. The assessment plan is designed and implemented by faculty in the College of Aviation. This plan is designed to satisfy the requirements of the Aviation Accreditation Board International (AABI), Western Michigan University, and the COA. The COA Assessment Committee, comprised of faculty, reviews, modifies, and submits the college plan to the university. There is one faculty member which is assigned as an Assessment Manager to fulfill, manage, and track assessment progress in accordance with this plan.

1. Students

The COA deeply values our students and puts forth measures to ensure they have meaningful experiences and are prepared to enter the aviation industry with professional skills and abilities. The COA partners with other WMU offices to gather pertinent information to make informed decisions regarding current and future college development.

1.1 Admissions

WMU publishes admission requirements through the Office of Admissions for first-year, transfer, readmission, and international applicants, as well as policy regarding credit for-collegiate achievements. Information concerning admissions can be found at:

<https://wmich.edu/admissions>

1.2 Academic Advising

Advisors are available to assist in the individual program planning, recommend electives appropriate to a student's educational objectives, discuss employment opportunities, and help solve academic problems. Substitutions and special transfer credit must be approved by the advising Director, the curriculum committee, or the Faculty Chair.

Specific information regarding the COA can be found at:

<https://wmich.edu/aviation/advising>

1.3 Student Assessment Measurement

The assessment of student learning outcomes is a critical part of program effectiveness. In addition to being a critical part of program effectiveness, the assessment of student learning outcomes is critical to overall institutional effectiveness in promoting and supporting evidence-based planning and improvement. The Office of Institutional Effectiveness (OIE) provides strategic management of cross-collaborative projects and initiatives that support student success and institutional coherency, such as compliance assurance for regional and specialized program accreditation. In support of university assessment processes, OIE manages the administration of institution-level assessments (e.g., National Survey of Student Engagement, etc.); the Campus Labs Student Course Ratings System (CLCRS); University Assessment Steering Committee (UASC) activities such as Assessment in Action, Assessment Fellows Grants, and Assessment Mentor Program.

The WMU Office of Institutional Research (IR) leads data governance at Western Michigan University by deliberately managing, ensuring, and promoting the integrity of data to foster a culture that values using information to improve the effectiveness of current activities and plan for the future. Data collected includes graduation rates, enrollment, job placement and employment statistics post-graduation. The COA utilizes data compiled by IR to track student assessment information. This information aids COA administration, faculty, and staff decision making on college enrollment, retention, and program change and development.

2. Program Mission and Educational Goals

The College of Aviation is one of eight colleges housed within Western Michigan University. The COA mission and vision aligns with the mission and vision of WMU. The COA mission and vision statement will be fully reviewed every five years, in conjunction with the strategic plan, or as requested. Review is conducted by COA administration, with input from faculty and staff.

2.1 Western Michigan University Mission Statement

Western Michigan University is a learner-centered, research university, building intellectual inquiry and discovery into undergraduate, graduate, and professional programs in a way that fosters knowledge and innovation, and transforms wisdom into action. As a public university, WMU provides leadership in teaching, research, learning, and service, and is committed to enhancing the future of our global citizenry.

2.2 College of Aviation Mission Statement

To prepare leaders who are sought after by the aerospace industry and engage in meaningful research that advances the knowledge base.

2.3 College of Aviation Vision Statement

The College of Aviation will be recognized as the premier aerospace education and research institution in our diverse global society.

2.4 College of Aviation Core Values

- Accountability
- Diversity
- Excellence
- Integrity
- Respect
- Safety

The College of Aviation is committed to maintaining its state-of-the-art, world-class professional aviation programs and curriculums, to ensure they are continued to be viewed among the best in the world. Believing in the continuous improvement model, the College of Aviation constantly examines its pedagogy, investigating its approach to teaching and pioneering revolutionary new methods of instruction. All of which are designed to improve the efficiency and effectiveness of aviation professionals to work within a team or crew. Crew Resource Management isn't just a concept, it is a foundation. The College of Aviation produces graduates who think critically, communicate effectively, and participate meaningfully and ethically in the dynamic field of aviation.

2.5 Program Educational Goals

1. Graduates will be employed in the aviation or aerospace industry or apply their learned aviation experience to their career of choice.
2. Graduates will become competent aviation professionals and leaders who work effectively on diverse teams and can solve operational challenges in the aerospace industry.
3. Graduates will explain regulatory and legal issues which impact the aviation industry.
4. Graduates will be able to demonstrate effective safety procedures and decision-making skills in an operational environment.

2.6 Program Mission Statements

2.6.1. Aviation Flight Science

The mission of the Aviation Flight Science Program (AFSJ) is to provide industry with a professional aviator that serves as a responsible leader within an organization. Graduates will exhibit high levels of technical skill, leadership ability and global awareness that will make them effective problem solvers in a diverse and safety-oriented aviation industry.

This curriculum prepares students for a career in aviation as a professional pilot. It emphasizes intellectual as well as technical competencies and is geared toward educating captains, not just training pilots. Flight training and prerequisite course work ensures that students learn essentials that are required by the commercial airline industry. Concepts emphasized include Crew Resource Management (CRM), Line Oriented Flight Training (LOFT), international flight, airline regulations, profitability, management, and administration. Equipment includes a modern fleet of single- and multi-engine aircraft and state- of-the-art Training Devices which provide exposure to current Electronic Flight Instrumentation Systems (EFIS) and Flight Management Systems (FMS). Graduates of this curriculum earn their Federal Aviation Administration (FAA) Commercial Pilot Certificate with Instrument and Multi-engine Land ratings.

2.6.2 Aviation Management and Operations

The mission of the Aviation Management and Operations Program (AMOJ) is to prepare students with the necessary knowledge, skills, and abilities to become professionals and leaders in a diverse, global aviation industry.

This curriculum is designed to prepare tomorrow's aviation business leaders, today. As a graduate of this program students will be poised to obtain a position in airline or airport management, operations management, safety management, aviation/aerospace administration, airport planning or many others. Coursework includes a focus of aviation-

specific management courses and a foundation of business theory and practice. In addition, you will gain essential knowledge of aircraft systems, aerodynamics and performance, aviation law, and aviation safety. AMOJ students participate in a curriculum that blends aviation and business concepts and practices. Students obtain the knowledge and skills required for meaningful employment in the aviation industry.

2.6.3 Aviation Technical Operations

The mission of the Aviation Technical Operations Program (ATOJ) is to provide comprehensive, high-quality education and training to individuals who aspire to become skilled aviation maintenance technicians and leaders in the aviation industry.

The COA is committed to preparing our students to succeed in the competitive and ever-changing aviation industry by imparting knowledge, skills, and values that align with the highest standards of the industry. The Aviation Technical Operations curriculum provides preparation for a variety of positions in the demanding field of aircraft maintenance and support. Options include such areas as: aircraft maintenance and repair, performance testing, engineering/maintenance liaison, maintenance logistics, flight test engineering, product technical support, aircraft maintenance engineering, aircraft systems reliability and maintainability, licensing requirements, and repair facility management. Satisfactory completion of all requirements prepares one to take the Federal Aviation Administration (FAA) Airframe and Powerplant written, oral and practical examinations.

3. Student Learning Outcomes

Student Learning Outcomes (SLO) are established by AABI and the WMU College of Aviation to assess student learning related to their chosen aviation program. AABI General and Core Outcomes (criteria 3.3.1 and 3.3.2) are set by the AABI Board of Trustees and approved by the Council for Higher Education (CHEA). COA Program Outcomes, and course SLOs are set by COA faculty. Each aviation program must also fulfill WMU Western Essential Studies (WES) requirements.

3.1 WMU WES

WMU Essential Studies is the required curriculum for all undergraduate students at Western Michigan University. Courses are designed to help students become fluent in change and driven to contribute; develop perseverance; and be ready for their future. The program is comprised of three levels: Foundations, Exploration and Discovery, and Connections. Using a learner-centered approach, the WMU Essential Studies program enables students to succeed in an ever-changing world by expanding their understanding of human cultures and the physical/natural world, enhancing their intellectual and practical skills, and exercising personal and social responsibility through integrative and applied learning.

WMU WES courses are integrated into each COA baccalaureate major to fulfill university requirements. WMU is accredited by the Higher Learning Commission (HLC). There is additional information regarding WES online: <https://wmich.edu/essentialstudies/about>

WMU objectives for WES (assessed in accordance with WMU WES policy/procedures):

- Expand students' understanding of human cultures and the physical/natural world.
- Enhance intellectual and practical skills.
- Exercise personal and social responsibility.
- Exhibit integrative and applied learning.

3.2 AABI General and Core Outcomes

- a. apply mathematics, science, and applied sciences to aviation-related disciplines;
- b. analyze and interpret data;
- c. work effectively on multi-disciplinary and diverse teams;
- d. make professional and ethical decisions;
- e. communicate effectively, using 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 business sustainability to aviation issues.

AABI Core Outcomes

1. Describe the professional attributes, requirements or certifications, and planning applicable to aviation careers.
2. 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.

3.3 Aviation Program Student Learning Outcomes

The following aviation program outcomes were developed by COA faculty. They are subject to change by recommendation, and official vote of faculty through appropriate university and college policy and implemented by the COA assessment committee. Each major within the COA has a set of learning outcomes. Program goals and program student learning outcomes will be reviewed annually by the assessment committee to ensure alignment and encourage improvement. Program SLOs will be reviewed by faculty every three years, sooner if deemed necessary, or upon request.

3.3.1 Aviation Flight Science Learning Outcomes

Students who graduate from the Aviation Flight Science program will:

1. Examine technical and procedural aspects of flight operations and aircraft systems and demonstrate application of this knowledge.
2. Analyze flight operations in national and international airspace systems.
3. Demonstrate aeronautical knowledge, flight proficiencies, and risk management components required to obtain an F.A.A. commercial pilot certificate with single engine and multi-engine, and instrument ratings.
4. Explore regulatory and legal issues which impact the industry.
5. Evaluate and apply Crew Resource Management skills in a flight operations environment.

3.3.2 Aviation Management and Operations Learning Outcomes

Students who graduate from the Management and Operations program will:

1. Demonstrate knowledge of business principles and practices within the aviation industry.
2. Apply effective written and oral communication skills within the aviation environment.
3. Describe historical events, regulations, and current challenges and trends, which impact the aviation industry.

4. Recognize aviation procedures based on human factors and conduct aviation operations utilizing industry best-practices safety policies.

3.3.3 Aviation Technical Operations Learning Outcomes

Through a combination of classroom learning and hands-on experiences, students who graduate from the Aviation Technical Operations program will:

1. Demonstrate an in-depth technical knowledge of aircraft systems and operation.
2. Demonstrate appropriate skills, techniques, and accepted practices necessary for aircraft maintenance and determination of airworthiness.
3. Apply cognitive reasoning skills to aircraft systems analysis and troubleshooting.
4. Prepare students to successfully complete the FAA Airframe and Powerplant Mechanic exams.
5. Describe regulatory and legal issues which impact the industry.

**Tables 3.5.1, 3.5.2, 3.5.3, and 3.5.4 were updated during the 2023-2024 academic year by the Assessment Committee and faculty. Program learning outcomes and the relationship to AABI criteria for each program can be found in each table.*

3.4 Course Learning Outcomes

Each aviation (AVS) course in the college has a set of course learning outcomes determined by the faculty. Course learning outcomes must support the program learning outcomes.

3.4.1 Assessing Course Learning Outcomes

Achievement of specific learning outcomes should be performed on a regular basis. A minimum of one outcome should be selected to be assessed at least once annually. Appropriate data and evidence will be collected by the instructor(s) and analyzed. Each instructor will use their preferred method of data collection and analyzation. Changes to the course will be made and the specific outcome reassessed. Once there is evidence that an outcome is being met, a different outcome will be selected for assessment during the subsequent offering. Each set of course learning outcomes should be assessed every three years.

3.5 Relationship between AABI and Aviation Courses in Major

**Tables 3.5.1, 3.5.2, 3.5.3 and 3.5.4 were updated during the 2023-2024 academic year by the Assessment Committee and faculty.*

3.5.1 Aviation Flight Science (AFSJ) Major Courses and AABI

AFSJ Courses	AFSJ Program Learning Outcomes					AABI General and Core Outcomes (3.3.1 a-l, 3.3.2 1-6)																		
	1	2	3	4	5	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI 1	AABI 2	AABI 3	AABI 4	AABI 5	AABI 6	
AVS 1200				X		X						X	X		X			X						
AVS 1210			X			X	X												X					
AVS 1220	X					X																		
AVS 1225	X					X																		
AVS 1230	X					X	X										X							
AVS 1235	X						X											X						
AVS 1510			X			X	X															X	X	
AVS 1520			X			X	X															X		
AVS 1525			X													X						X		
AVS 2050			X	X	X																X	X	X	
AVS 2060				X		X		X											X	X	X	X		X
AVS 2070	X				X			X	X	X	X													
AVS 2510			X										X									X	X	
AVS 2520			X											X								X		
AVS 3060	X					X	X			X										X				
AVS 3070	X						X																	
AVS 3080	X						X							X		X								
AVS 3190				X					X						X			X				X		
AVS 3220		X						X								X					X			
AVS 3290		X					X									X				X				X
AVS 3530			X			X	X									X				X			X	X
AVS 3540			X													X				X				
AVS 3550	X					X	X	X	X	X	X	X	X	X	X	X			X	X	X	X		X
AVS 3560			X			X	X																X	
AVS 4030				X						X	X					X				X				
AVS 4110		X					X							X					X	X	X	X		
AVS 4120					X			X	X		X			X		X				X				
AVS 4240				X			X						X	X	X	X	X				X			
AVS 4270		X																		X	X	X		

3.5.2 Aviation Management and Operations (AMOJ) Major Courses and AABI

AMOJ Courses	AMOJ Program Learning Outcomes				AABI General and Core Outcomes (3.3.1 a-l, 3.3.2 1-6)																		
	1	2	3	4	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI 1	AABI 2	AABI 3	AABI 4	AABI 5	AABI 6	
AVS 1200			X	X	X						X	X		X			X					X	
AVS 1210				X	X	X												X					
AVS 1220	X			X	X																		
AVS 1225	X				X																		
AVS 1230	X				X	X										X		X					
AVS 1235	X					X												X					
AVS 1801	X			X								X			X		X		X		X	X	
AVS 2050			X	X															X	X	X		
AVS 2070		X	X	X			X	X	X	X													
AVS 2100		X	X	X					X	X				X							X	X	
AVS 2400	X	X	X															X	X				
AVS 2800			X								X	X											
AVS 3040	X		X											X	X				X				
AVS 3140	X						X								X						X		
AVS 3190		X	X					X						X						X			
AVS 3303*																							
AVS 3360	X	X	X	X															X	X			X
AVS 4110	X		X	X														X	X	X	X	X	X
AVS 4130		X	X			X	X	X	X	X		X	X		X						X	X	
AVS 4140	X	X	X								X	X								X	X		
AVS 4240	X					X						X	X	X	X	X				X			
AVS 4270	X	X	X	X															X	X	X		
AVS 4280	X	X	X															X	X	X	X		
AVS 4303*																							
AVS 4400	X	X	X																X	X	X		
AVS 4980	X					X	X		X				X		X								

*Course not active until Fall 2024, part of certificate program

3.5.3 2023 Operations (ATOJ) Major Courses and AABI

Fall 2023 *ATOJ Courses	ATOJ Program Learning Outcomes					AABI General and Core Outcomes (3.3.1 a-l, 3.3.2 1-6)																		
	1	2	3	4	5	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI 1	AABI 2	AABI 3	AABI 4	AABI 5	AABI 6	
AVS 1200	X	X	X			X						X	X		X			X					X	
AVS 1210	X	X	X			X	X													X				
AVS 1220	X	X	X	X		X										X				X				
AVS 1225	X	X	X	X		X											X							
AVS 1910				X	X								X		X						X			
AVS 1915				X	X		X			X										X				
AVS 1920				X		X																	X	
AVS 1925				X		X																	X	
AVS 1930	X	X	X	X			X												X					
AVS 1935	X	X	X	X				X														X		
AVS 1940	X	X	X	X		X								X						X				
AVS 1945	X	X	X	X			X													X				
AVS 1950	X	X	X	X		X																		
AVS 1955	X	X	X	X		X																		
AVS 2050		X		X																X	X	X		
AVS 2910	X	X	X	X										X										
AVS 2915	X	X	X	X			X							X						X				
AVS 2920	X	X	X	X		X																	X	
AVS 2925	X	X	X	X				X								X								
AVS 2930	X	X	X	X		X														X				
AVS 2935	X	X	X	X												X					X			
AVS 2940	X	X	X	X			X	X												X				
AVS 2945	X	X	X	X			X	X												X				
AVS 2950	X	X	X	X		X				X														
AVS 2955	X	X	X	X							X													
AVS 2960	X	X	X	X					X											X				
AVS 2965	X	X	X	X					X											X				
AVS 2990	X	X	X	X								X		X									X	
AVS 2995	X	X	X	X								X		X									X	
AVS 3190	X	X	X	X					X						X						X			
AVS 3910	X	X	X	X		X														X				
AVS 3915	X	X	X	X				X						X										
AVS 3920	X	X	X	X										X										
AVS 3925	X	X	X	X				X		X														
AVS 3930	X	X	X	X		X	X																	
AVS 3935	X	X	X	X				X								X								
AVS 3940	X	X	X	X			X																	
AVS 3945	X	X	X	X										X		X								
AVS 3950	X	X	X	X		X	X																	
AVS 3955	X	X	X	X		X	X													X				
AVS 3960	X	X	X	X		X	X																	
AVS 3965	X	X	X	X					X	X											X			
AVS 3970	X	X	X	X								X								X				
AVS 3975	X	X	X	X		X								X		X						X	X	
AVS 4630	X	X	X					X																
AVS 4650	X	X	X				X		X															
AVS 4655	X	X	X					X						X		X								

AVS 4720	X	X	X				X			X									X					
AVS 4725	X	X	X			X		X			X													
AVS 4740	X	X	X					X													X	X		

*Note: This schedule of courses/catalog began Fall 2023

3.5.4 Previous Operations (ATOJ) Major Courses and AABI

Previous catalogs	ATOJ Program Learning Outcomes					AABI General and Core Outcomes (3.3.1 a-l, 3.3.2 1-6)																		
	1	2	3	4	5	AABI a	AABI b	AABI c	AABI d	AABI e	AABI f	AABI g	AABI h	AABI i	AABI j	AABI k	AABI l	AABI 1	AABI 2	AABI 3	AABI 4	AABI 5	AABI 6	
AVS 1200	X	X	X			X						X	X		X			X					X	
AVS 1210	X	X	X			X	X												X					
AVS 1220	X	X	X	X		X										X			X					
AVS 1225	X	X	X	X		X											X			X				
AVS 2050		X		X																X	X	X		
AVS 2600	X	X	X	X										X					X	X	X			
AVS 2605	X	X	X	X																				
AVS 2610	X	X	X	X					X			X		X							X			X
AVS 2620	X	X	X	X		X	X						X	X				X	X					
AVS 2625	X	X	X	X			X		X		X	X	X				X			X				
AVS 2630	X	X	X	X		X	X			X	X								X					
AVS 2635	X	X	X	X		X	X									X			X					X
AVS 2640	X	X	X	X		X	X			X		X		X			X		X					
AVS 2645	X	X	X	X		X	X			X		X		X			X		X					
AVS 2650	X	X	X	X		X	X			X	X								X					
AVS 2655	X	X	X	X																				
AVS 3190				X	X				X							X					X			
AVS 3600	X	X	X	X			X	X		X	X								X					
AVS 3605							X																	
AVS 3620	X	X	X	X		X	X			X	X								X					X
AVS 3625																								
AVS 3630	X	X	X	X		X				X	X								X					X
AVS 3635																								
AVS 3640	X	X	X	X		X	X												X					
AVS 3645																								
AVS 3650	X	X	X	X		X	X		X					X										
AVS 3655	X	X	X	X		X	X	X		X				X										
AVS 3660	X	X	X	X		X								X					X			X		
AVS 3665	X	X	X	X			X			X	X			X					X					
AVS 3670	X	X	X	X		X								X					X					
AVS 3675																								
AVS 3690	X	X	X	X		X	X			X		X		X			X		X					
AVS 3695	X	X	X	X		X	X			X	X	X		X			X		X					
AVS 4600	X	X	X	X		X	X	X					X	X					X	X		X	X	X
AVS 4605																								
AVS 4620	X	X	X	X		X	X						X						X		X	X	X	
AVS 4630	X	X	X	X			X	X	X	X	X			X	X	X	X		X	X				
AVS 4640	X	X	X	X						X	X			X					X					X

3.8.1 WMU Office of Institutional Research (IR) Data Collection

The COA will utilize data collected regarding admissions, enrollment, graduation rates, industry placement and other relevant information from the WMU IR to address assessment items.

3.8.2 COA Student Survey

The COA will post a student survey every two years during Spring semester for the academic, or as needed, to gauge operational quality.

3.8.3 Certification Examination Performance Audit

WMU students in the flight program FAA written examinations to obtain federal certification. Some technical operations students choose to take FAA written examinations however, it is not required. The scores that these students achieve on the federal certification examinations are compared to the national averages for all persons taking the examinations. The private pilot, instrument rating, and commercial pilot written examinations are compared for the students in the Flight Science program and the aircraft maintenance technician powerplant, airframe, and general written examinations are compared for students in the Aviation Technical Operations program.

3.8.4 Course Level Outcome Assessment

Each academic year semester course learning outcomes will be assessed, as discussed in 3.4.1. This methodology contributes to the assessment of certain program learning outcomes as well. Each instructor will determine the method best suited to their course and the objectives for that course. Tools utilized for assessment could include quizzes or exams, assignments, presentations, papers, capstone projects, and scenario-based learning.

3.8.5 COA Faculty and Staff Retreat and Faculty Meetings

COA faculty and staff will meet twice annually, prior to Fall and Spring semesters, for a daylong retreat dedicated to program review, industry topics and updates, outreach, state of the college, teamwork, and any other pertinent topic. Faculty will also meet throughout the academic year on an as-needed basis to discuss topics pertaining to the state of the college, programs, and curriculum.

3.8.6 COA Committee Meetings

There are various committees within the COA which address curriculum. These committees will meet on a regular basis, with a minimum of once per academic year semester, to review current and future curricula and program needs.

3.8.7 Industry Advisory Board

The COA Industry Advisory Board meets at least once during Fall and Spring semesters. Members of the board provide feedback to COA faculty and staff

regarding current program curriculum, industry trends, industry best practices, research, outreach, and student success.

3.8.8 Senior Exit Survey

The purpose of the senior survey is to evaluate students’ perceptions and opinions of the program from which they have or are about to graduate. It is developed by the faculty and is designed to determine students’ perceptions about how well their education has prepared them for their career. It also provides insight into the equipment, facilities, and operation of the college.

3.8.9 Alumni Survey

Feedback received from alumni is provided by the WMU OIE and by a COA alumni survey. The purpose of the survey is to ascertain how well the COA programs have prepared students for their desired careers based on their program learning outcomes. The survey will explore both the general and program-specific learning outcomes to determine if they feel they were well prepared by the college. Additional information about their experience getting a job, their employer, position, and years of service will be sought. Also included is an open request for suggestions. The survey will be distributed at least once every three years, or more if deemed necessary by faculty and staff.

3.9 Assessment Schedule

Assessment Activity/Tool	Timeline
WMU IR/OIE Data collection	Annually - published by December 1
COA Student Survey	Spring semester, every two years
COA Alumni Survey	Every three years
FAA Licensure Exams/Audits	Continuous
Course Level Outcome Assessment	End of Fall and Spring semesters
Faculty Retreat	Beginning of Fall and Spring semesters
Faculty Meetings	Ongoing
COA Committee Meetings	At least once per academic year semester
Industry Advisory Board	Fall and Spring
Senior Exit Survey	End of Fall and Spring semesters

3.10 Results of Assessment

All recommended changes to aviation programs and curriculum will be made following outlined and approved policies and procedures. Results from assessment will be considered in the decision-making process by administration, faculty, and staff. Results of assessment will be shared on a regular basis to appropriate stakeholders.

4. Curriculum

COA program curriculum adheres to WMU WES requirements and AABI criteria. A list of WES curriculum options can be found: <https://wmich.edu/essentialstudies/requirements>. A list of current COA program curriculum is available online through the WMU Registrar's Office at: <https://wmich.edu/registrar>, course catalog, or on the COA website.

4.1 Curriculum Review University Level

WMU Faculty Senate has a curriculum review process which is published online on the Faculty Senate website. All college level courses, and program changes must adhere to WMU policy. <https://wmich.edu/facultysenate/policies/curriculumreview>

4.2 Curriculum Review Department Level

The COA has multiple curriculum committees. Each aviation discipline has a curriculum committee comprised of faculty teaching courses offered in that program. There is also a college curriculum committee made up of members from faculty of all three majors. Curriculum is continually reviewed by these committees. It is recommended that each committee meet at least once per academic year semester. Course changes for each discipline must be voted on by faculty in each respective curriculum committee. Recommended changes are then presented to the college curriculum committee to be voted on. Changes that have been approved at the college level are then presented and subject to the WMU curriculum committees and processes.

Committee List	Area of Concentration
Aviation Management and Operations (AMOJ) Curriculum Committee	All courses/curriculum, assessment related to AMOJ.
Aviation Flight Science (AFSJ) Curriculum Committee	AFSJ courses and fixed wing operations, compliance with Part 141, assessment
Aviation Technical Operations (ATOJ) Curriculum Committee	AJOJ major specific courses, compliance with Part 147, assessment
College Curriculum Committee	Courses common to all majors, approval of curriculum at college level, assessment
Graduate Studies Committee	Focused on creation and/or implementation of graduate level courses, certificates, or degrees. <i>*Note-COA does not currently have a graduate program*</i>

5. Faculty and Staff

The COA has approximately 37 faculty members, comprised of tenured, tenure-track, and adjunct faculty, who teach and advise over 1,100 students. COA faculty have diverse backgrounds in aviation and are passionate about preparing our students for meaningful careers in aviation and aerospace. The department chair and COA administration continuously monitor staffing levels to ensure all courses are covered. Faculty on a traditional track (i.e., Professor, Associate Professor, Assistant Professor) are required to engage in teaching, service, and research. Faculty Specialists (i.e., Faculty Specialist I, II, Master Faculty Specialist) are required to engage in teaching and service. Adjunct faculty are required to teach. The COA also employs many staff positions which include, but are not limited to, administrative staff, flight instructors, line maintenance, advisors, information technology, dispatch and scheduling, and inspectors.

5.1 Faculty and Staff Evaluation

AVS courses are open for evaluation at the end of each semester, in accordance with WMU policy, using the CampusLabs/Anthology application. Students can anonymously rate each course towards the end of the semester, as the evaluations are open for multiple weeks. The instructor is given access to results after final grades are posted.

Faculty are also evaluated by COA Tenure and Promotion Committees, based on American Association of University Professors (AAUP) current contractual article requirements and COA tenure and promotion guidelines. The current contract can be found on the AAUP website. <https://www.wmuaaup.org/home>

6. Facilities, Equipment, and Services

The College of Aviation is one of eight departments within WMU offering baccalaureate degrees. The COA is dedicated to having well maintained buildings that promote learning and interactions between faculty, administration, staff, and students. As a department of WMU, all COA students have access to university supporting services. Students can report facilities issues on the WMU Bronco Fix-it website or can give feedback through the COA Dean’s Office.

6.1 Facilities

The COA commissioned the new Aviation Education Center (AEC) in Battle Creek, MI, in summer of 2021. The classrooms have state-of-the-art equipment. This is combined with the Flight Operations Buildings. The college also possesses storage hangars and an Aircraft Maintenance Building. These combined facilities house classrooms, briefing rooms, lab areas, breakrooms, etc. The COA Facilities Manager monitors and manages facilities associated with the AEC and COA. More information regarding COA facilities can be found on the website: <https://wmich.edu/aviation/about/facility>

6.2 Equipment

When it comes to flight training or aviation maintenance, equipment isn’t only necessary it is fundamental to the type of training a student will obtain. Western Michigan University has adopted a fleet of aircraft with the ultimate purpose of training the next leaders in the field of aviation. Cirrus SR-20 aircraft are the primary training aircraft for students at the COA, while Piper Seminoles are used for multi-engine training. The COA also utilizes a Piper Super Cub on amphibious floats and a Super Decathlon. There is also a Simulator Lab located within the Aviation Education Center and houses a 737-Max flight training device, three Cirrus SR-20 Advanced Flight Training Devices—FTD's—and a Redbird full motion multiengine simulator. All COA equipment is continuously evaluated for safety, efficiency, and industry applicability.

6.3 Services

COA students, faculty, and staff receive all support services offered by WMU. These include Academic Advising, Academic Support Services, Library Services, and multiple other student services. A list of services and additional information for each can be found online at <https://wmich.edu/student-services>.

The COA is located approximately 25 miles away from WMU’s main campus. A variety of services are offered to COA students, faculty, staff, and constituents while utilizing the AEC. They include dispatch, line services, student flight accounts, shuttle service to/from Kalamazoo campus, briefing rooms, Spirit Shop, food service, information technologies, and facilities maintenance.

7. Aviation Safety Culture and Program

Safety is at the core of what we do. The safety program is based on generally accepted principles of a Safety Management System (SMS). Our safety program encompasses all operations associated with the COA to include flight operations, maintenance operations, facilities management, college events, etc.

7.1 Safety Program Objectives

1. To establish and promote a safety program which is recognized, readily available and utilized by all employee and student groups.
2. To develop a safety culture where active feedback about safety of operations is valued and encouraged at all levels of the organizational structure.
3. To maintain a well-represented safety committee to evaluate and consider safety reports and concerns, assess risks, and make recommendations for operational improvements as they relate to safety.

7.2 Safety Program

The College is accredited by the Aviation Accreditation Board International (AABI), which has identified four Basic Safety Pillars. This SMS aims to exhibit those pillars:

1. A Safety Policy
2. Safety Risk Management
3. Safety Assurance
4. Safety Promotion

A safe College of Aviation environment depends upon all members of the college community embracing a culture of safety. This safety program, and compliance with it, are the foundation of our safety culture, which is based on collective learning from our individual experiences. At times, collective learning comes because of an individual's mistake. The COA accepts that mistakes happen. But we insist on collective learning from each mistake. This SMS relies on decades of collective learning from our own mistakes and the resultant best practices. This SMS also relies on best practices from the entire aviation industry. This SMS is open to improvement. All members of the College community are encouraged to give feedback on this SMS and its implementation.

Living our safety culture is an ongoing task that requires continually reviewing and understanding this SMS. The COA strives to increase safety, while allowing students and staff to train and learn to become world-class aviation professionals. Together, we can use this SMS to foster our safety culture and continue our proud path of safety and excellence.

The safety reporting system we use at the College of Aviation is known as SMART. It's a web-based system compatible with and integrated into our

Education and Training Administration (ETA) software.

7.3 Safety Committee

The COA Aviation Safety Committee (ASC) is comprised of college administration, faculty, staff, students, and other WMU and community stakeholders. The committee meets every two weeks. Topics reviewed may include the SMS pillars, COAs safety policy, discussing and addressing incidents and safety reports, and how to integrate updates to SMS policy and procedures. Detailed minutes are kept for each session and kept on the college secured network platform.

7.4 Safety Reporting System

A key element of the safety program is the software that enables any member of the college: faculty, student, or staff, to conveniently report safety-related concerns, incidents, or events. The web-based system is based on methodologies employed by government agencies, major airlines, and other flight operations, and automatically generates e-mail messages to appropriate personnel throughout the process. The COA utilizes Talon SMART application. Data that is collected is retained, in identified and unidentified forms, to access easy trend analyses leading to risk identification and mitigation. This information is kept on the college's secured network drive.

8. Relations with Industry

The COA understands the significance and value of maintaining a relationship with alumni and the aviation industry. Feedback received from industry and our alumni helps transform curriculum, pedagogy, and assist us in serving our current and future aviation community.

8.1 College Industry Advisory Board

The COA Industry Advisory Board is comprised of volunteer alumni and industry professionals. The mission of the WMU COA Industry Advisory Board is to facilitate the alliance between the college and the aviation community and to function in an advisory capacity to the dean and the faculty. These board members offer students insights and expose them to different aspects of aviation. Membership is comprised of individuals with diverse backgrounds, career paths, networks, and skills in aviation. They assist the COA in providing students with a unique and meaningful experience.

In seeking to strengthen the relationship between the aviation community and the College of Aviation, its faculty, and its students, the Advisory Board provides guidance and assistance in achieving the following objectives:

- Enhancing the cooperation between the College of Aviation and the communities it serves, including other parts of the University.
- Assisting in the development of educational programs designed to meet the current and future needs of the aviation community.
- Advocating on behalf of the College of Aviation by engaging in dialogue on important strategic issues with various stakeholders.
- Reviewing and advising on college curricula to ensure currency and relevance of programs.
- Advocating on behalf of the College of Aviation by soliciting or expanding scholarships, internships, and other employment opportunities for students.
- Identifying and expanding the opportunities for the faculty to update and broaden their professional aviation experience.
- Promoting the use of College of Aviation students in research projects that provide benefit to the aviation community while enhancing the college learning experience.
- Participating in and supporting college activities. Working with the Dean on strategic issues for the College of Aviation which will enhance the strategic focus of the Board.

In return, the Board will provide its members:

- The opportunity to become integrally involved in matters of strategic importance to the College of Aviation.
- The opportunity to contribute to the field of aviation by providing guidance and expertise to our career-ready graduates as they seek professional aviation careers.
- The opportunity to make a significant difference in the growth and development of our programs, faculty, and our students.

8.2 Alumni Relations

The COA alumni represent all facets of aviation and represent the leaders and innovators in their respective fields. We understand the importance of encouraging and maintaining this relationship. Current alumni events and information can be found on the college website. <https://wmich.edu/aviation/alumni>

8.3 Assessment

The COA makes efforts to continuously engage alumni. The Advisory Board is the primary method to bring industry and faculty together. The board meets during the academic year, ideally a minimum of once per academic semester. The Chair of the Industry Advisory Board will assemble a committee to perform a biannual review of board effectiveness and college response to board input. The Dean and/or Associate Dean of the COA and the Chair of the Industry Advisory Board will partner to ensure a relationship is sustained and that the COA is meeting its goal. Agendas and minutes for these gatherings are kept on an internal college secure network.

The COA utilizes many methods of developing industry relationships. Although we do not formally assess these, we understand the significance of building these continued relationships. The COA website has a link specifically for alumni relations. It is a public forum which connects the college to our graduates. The college hosts annual events which bring together alumni, current students, faculty, industry partners, and our aviation community to celebrate our college, alumni, and aviation. There is an online forum for alumni blogs and newsletters. Faculty holds industry memberships, attend conferences, and maintain and build their network. Faculty work to continuously connect our students to the aviation industry. The college also supports Registered Student Organizations (RSO). These student groups attend national conferences, participate in mentorship programs, set up and provide industry tours for members, coordinate industry partners/partnerships to present in meetings or at college events, and support our relationships with current and future industry stakeholders. Some of these interactions bring invaluable experiences and opportunities to our students and future relationships.

9. Diversity, Equity, and Inclusion (DEI)

Western Michigan University approved a new strategic plan in 2022. WMU is committed to improving access to learning opportunities by fostering a supportive university environment and culture. Western's new Strategic Plan 2022-2032 will cover a span of 10 years and is framed around seven key priority areas: Academic Excellence, Community Building, Diversity, Equity and Inclusion, Internationalization, Research and Creative Scholarship, Sustainability and Well-being. A full copy of the strategic plan can be found on the University Strategic Plan website:

<https://wmich.edu/strategic>

The College of Aviation fully supports and adheres to the WMU Strategic Plan vision, mission, and goals. Directly in line with the WMU Strategic Plan the COA has adopted the DEI objective: ***Retain and graduate a diverse student body while steadily eliminating disparities in graduation rates.***

The COA will assess this objective and include evidence as part of all AABI requirements. DEI goals will be reviewed annually by the COA Assessment Committee and updated as necessary.

10. Assessment Implementation

The COA receives feedback from a variety of stakeholders. These may include the COA Industry Advisory Board, industry partners, students, WMU administration, faculty, etc. The information received is then distributed to the Assessment Committee and/or additional committee/s for review. Proposals are discussed and may be voted on for implementation using established processes. If a change is approved, college and university procedures will be followed for execution. The COA then notifies our stakeholder groups of changes. For each assessment area, the person responsible will follow a specific assessment process and timeline stated in this plan. For items that do not meet the performance standard, or not approved by vote, feedback will be documented and may be provided to the appropriate stakeholder group. Figure 1 shows the general assessment process cycle.

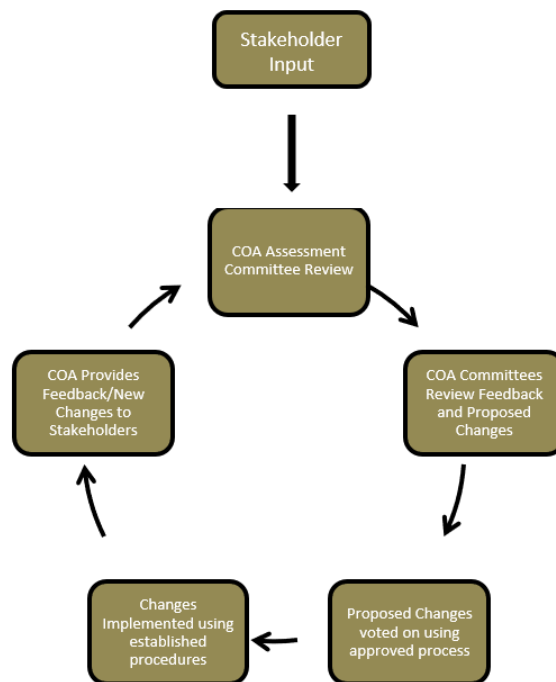


Figure 1: COA General Assessment Process Cycle

The assessment processes will be continuously evaluated to determine the validity and practicality of the assessment metrics and procedures. Processes for gathering and evaluating data will be continuously reviewed and refined to make the process meaningful and manageable. The goal will be to ensure that the college does not become burdened by the process but rather that the assessment process becomes a tool that will help the college offer the best programs for our students and our industry. A complete review and update of the plan will be conducted at least every five years. Methodologies, schedules, and processes may be altered at any time as dictated by usefulness, resource constraints or other issues.

10.1 Students

Goal	Evidence	Responsible Party	Follow up
Student section of the assessment plan will be reviewed annually	Office of OIE and/or IR data	Dean/Assoc. Dean, Chair, Assessment Committee	Data collected will be analyzed; program changes made as necessary to ensure student success.

Timeline for Assessment Tools	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
WMU OIE Data	X	X	X	X	X	X

10.2 Program Mission and Educational Goals

Goal	Evidence	Responsible Party	Follow up
Program Mission and Educational Goals section of the assessment plan will be reviewed annually to ensure compliance with timeline.	WMU OIE Data, WMU Strategic Plan	Dean/Assoc. Dean, Chair, Assessment Committee, COA Curriculum Committees	Data collected will be analyzed; College Mission/Vision statements may be changed to ensure alignment with WMU Strategic Plan, COA Strategic Plan, industry needs.

Timeline for Assessment Tools	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
COA Mission and Vision Statement	X				X	
Program Educational Goals	X				X	
Program Mission Statements	X				X	

10.3 Student Learning Outcomes

Goal	Evidence	Responsible Party	Follow up
Student Learning Outcomes section of the assessment plan will be reviewed annually by the Assessment Committee.	Tools listed in section 3.8 of this assessment plan	COA Assessment Committee, COA Faculty	Specific evidence collected by responsible parties will be assessed based on the stated timelines. Course and/or program changes may be made based on results of data.

Timeline for Assessment Tools	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
COA Program Student Learning Outcomes	X			X		
COA Course Learning Outcomes	X	X	X	X	X	X
COA Complete Assessment Plan Review	X				X	
WMU IR Data	X	X	X	X	X	X
COA Student Survey	X	X		X		X
Certification Exam Audit	X	X	X	X	X	X
Faculty and Staff Retreats and Meetings	X	X	X	X	X	X
COA Curriculum Committee Meetings	X	X	X	X	X	X
Industry Advisory Board Meetings	X	X	X	X	X	X
Senior Exit Survey	X	X	X	X	X	X
Alumni Survey	X			X		

10.4 Curriculum

Goal	Evidence	Responsible Party	Follow up
Curriculum section of the assessment plan will be reviewed annually by the Assessment Committee.	Committee Agendas & Minutes	COA Assessment Committee, COA Committees	Based on the COA Assessment Plan, Curriculum Committees will meet to review curriculum, program outcomes, course outcomes. Changes may be made based on industry changes, regulations, recommendations to ensure continuous improvement.

Timeline for Assessment Tools	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
COA Curriculum Committee Meetings	X	X	X	X	X	X

10.5 Faculty and Staff

Goal	Evidence	Responsible Party	Follow up
Faculty and Staff section of the assessment plan will be reviewed annually by the COA Chair.	Enrollment, personnel data, budget	COA Chair	Chair and COA administration, will continuously monitor staff and faculty lines and determine if/when additional personnel is needed to meet demand.

Timeline for Assessment Tools	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
Personnel Review	X	X	X	X	X	X

10.6 Facilities, Equipment, and Services

Goal	Evidence	Responsible Party	Follow up
Facilities, Equipment, and Services section of the assessment plan will be reviewed annually by the Facilities Manager and COA Staff & Administration	Student Survey, student feedback	Facilities Manager, Dean/Assoc. Dean, Chair, COA Staff	Facilities Manager will manage facilities at AEC. Student services offered at AEC will be monitored/managed by COA Administration. Changes will be made as necessary.

Timeline for Assessment Tools	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
Facilities, Equipment, and Services Management	X	X	X	X	X	X

10.7 Aviation Safety Culture and Program

Goal	Evidence	Responsible Party	Follow up
Aviation Safety Culture and Program section of the assessment plan will be reviewed annually by the COA Safety Manager and Safety Committee.	SMART data, Safety Committee Minutes	Safety Manager, Safety Committee	Safety issues will be reported via TELCON SMART. SMS Pillars will be followed/enforced; as necessary

Timeline for Assessment Tools	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
COA Safety Committee Meetings	X	X	X	X	X	X

10.8 Relations with Industry

Goal	Evidence	Responsible Party	Follow up
Relations with Industry section of the assessment plan will be reviewed annually by the assessment Committee and Dean/Assoc. Dean	Industry Advisory Board Meeting Minutes	Dean/Assoc. Dean	Dean's Office will schedule advisory board meetings, provide resources to COA personnel for building alumni and industry relations

Timeline for Assessment Tools	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
Industry Advisory Board	X	X	X	X	X	X

10.9 Diversity, Equity, and Inclusion

Goal	Evidence	Responsible Party	Follow up
Diversity, Equity, and Inclusion (DEI) section of the assessment plan will be reviewed annually by the assessment Committee and Dean/Assoc. Dean	Utilization Analysis, SAD information	Dean/Assoc. Dean, Chair, AC	Dean's Office will supply Utilization Analysis data for each COA hire. WMU OIE will supply SAD annually.

Timeline for Assessment Tools	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
Diversity, Equity, and Inclusion (DEI)		X	X	X	X	X