COMPREHENSIVE SELF-ANALYSIS

FOR

BACHELOR OF SCIENCE IN AVIATION MANAGEMENT

BACHELOR OF SCIENCE IN FLIGHT OPERATIONS (PROFESSIONAL AERONAUTICS)

AVIATION DEPARTMENT

UNIVERSITY OF DUBUQUE

AUGUST 2018

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PROGRAM MISSION AND EDUCATIONAL GOALS

MISSION

The University of Dubuque is a private university offering undergraduate, graduate, and theological seminary degrees, and other educational opportunities with the intention of educating and forming the whole person. The University is comprised of individuals from the region, our nation, and the world.

As a community, the University practices its Christian commitments by educating students, pursuing excellence in scholarship, challenging students to live lives of worth and purpose, and preparing students for service to the church and the world.

Therefore, the University of Dubuque is committed to:

- A hospitable Christian environment which respects other faith traditions;
- Relationships which encourage intellectual, spiritual, and moral development;
- Excellence in academic inquiry and professional preparation;
- A diverse and equitable community where Christian love is practiced;
- Stewardship of all God's human and natural resources;
- Zeal for life-long learning and service.

The mission of the Aviation Department is to provide students with the professional skills that allow for success in all segments of the Aviation Industry while enhancing their critical thinking and decision-making skills. The Aviation Department supports the University of Dubuque mission by establishing excellence in professional preparation, fostering a zeal for lifelong learning, focusing on the development of professional skills enhanced by technology, integrated with safety practices, and characterized by fiscal prudence with quality equipment and facilities. Additionally, the aviation department vision supports the stated mission and goals by committing to:

- Sustaining a professional, healthy and enjoyable environment where students, staff and faculty are valued, given the opportunity to grow, and where diversity of thought is encouraged.
- Instilling an exceptional work ethic where integrity, safety and risk mitigation are the central core of the program, and transparency, community service, life-long learning, fairness and compassion are practiced.
- Continuing our work to build a world class aviation program supporting our students in their career endeavors.

The following table summarizes the published missional goals, the various assessments utilized as well as the evidence accumulated to assure the goal has been appropriately evaluated. Each goal is discussed to assure proper alignment with the university goals.

GOAL	ASSESSMENT(S)	EVIDENCE
Establish Excellence in Professional Preparation	• Developed program Student Learning Outcomes (SLO) with continuous assessment • Higher Learning Commission (HLC) Visit • Aviation Accreditation Board International (AABI) visit • UD Aviation Advisory Board (AAB) review • Participation in Industry/Education Events	• Assessments and student work • Visiting team report • Agendas and resolutions • RAA, NTAS, UAA, AABI, NBAA and others • Voice Recognition study with Rockwell Collins
Foster a Zeal for Life-Long Learning	• Periodically evaluate SLOs in Aviation Management and Flight Operations program	• Surveys from students and alumni
Develop Professional Skills Enhanced by Technology	• Assessment of program SLOs • Faculty membership on UDs CORE and Curriculum Committees • Evaluate supporting technology for further investments	• Adopted better simulation software for Airline Management class • Moved primary training fleet to G1000 • Acquired flight simulation to support G1000 • Involved Library and ASC to enhance research & writing skills • Added I-pad stands to CRJ to reflect Electronic Flight Bags (EFB) in the Cockpit • Acquired I-pads as EFBs for Flight Instructor staff
Integrate Safety Procedures Throughout all Flight & Ground Activities	• Regularly review course level building blocks • Safety reporting forms usage • Meeting with aviation student leadership • Safety meetings • Periodic review of key documents • Wendt character initiative	• Changes to AVI 145, AVI 233, AVI 349 and AVI 495 • Trend monitoring and Safety Committee meeting minutes • Aviation Student Leadership meeting notes • Safety Meeting attendance roster • Changes to Flight Center Staff Manual and Student Operations Manual • Syllabi and student activities
Be Good Stewards of Equipment, Facilities & Other Key Resources	• Use UDs Airport Reporting system for repairs • Schedule regular cleaning of flight center equipment	• FAA Maintenance Inspections • Student work usage • Campus visit comments from families & prospective students

EDUCATIONAL GOALS

AVIATION MANAGEMENT

An important feature of our programs is the integration of a strong, aviation-based, business and technology emphasis with a liberal arts foundation. All programs also provide sufficient electives for students to pursue certain individual specializations for career objectives within the field. All programs also include opportunities for internships with national and local companies; these include airlines, fixed base operators, aircraft charter firms, airport authorities, and others.

The Bachelor of Science in Aviation Management prepares students for a career in any aspect of business, leadership and for managerial roles in the aviation industry. Students have the opportunity to explore and learn the management and operation of domestic and international airlines, modern airports, corporate aviation, and fixed-base operators (FBO's.) The learning outcomes for the Aviation Management degree are:

1. The ability to demonstrate the impact of aviation, technology and business sustainability in a global and societal context;
2. An ability to apply the techniques, skills, and modern aviation management tools to perform business related tasks;
3. An ability to function on a multi-disciplinary and diverse management team which includes technical and management issues;
4. An ability to apply knowledge of mathematics, science and/or applied science to ensure safe and efficient operations;
5. An ability to accurately analyze and interpret data to solve a variety of problems;
6. An ability to recognize and apply ethical and professional excellence for responsible decision making;
7. An ability to communicate effectively with precision and clarity, within aviation and related industries; and
8. Engage in and recognize the need for lifelong learning.

FLIGHT OPERATIONS (PROFESSIONAL AERONAUTICS)

An important feature of our programs is the integration of a strong, aviation-based, business and technology emphasis with a liberal arts foundation. All programs also provide sufficient electives for students to pursue certain individual specializations for career objectives within the field. All programs also include opportunities for internships with national and local companies, including airlines, corporate flight departments, aircraft charter firms, airport authorities, and others.

The BS in Flight Operations is centered on a Pilot Training School certified under 14 CFR 141, and prepares students for FAA certification (licensing) and ratings. A flight-training program is available to majors and non- majors. The Flight Operations Program includes courses from primary flight through multi-engine, commercial pilot with instrument rating, each supported by an appropriate ground school. Flight students are required to obtain FAA Medical Certificate, Class I, II, or III at least 30 days

prior to desired enrollment date. U.S. citizens must have a certified copy of their birth certificate or a passport before beginning training. Non-U.S. citizens need to contact the Flight Center 4 weeks prior to the start of school for compliance with Transportation Security Agency rules and procedures. The learning outcomes for the Flight Operation program are:

1. An understanding of the impact of aviation and technology in a global/societal context
2. An ability to apply the techniques, skills, and modern aviation management tools to perform business related tasks
3. An ability to function on a multi-disciplinary management team which includes technical and management issues
4. An ability to apply knowledge of mathematics and science to ensure safe and efficient operations
5. An ability to accurately analyze and interpret data, and design experiments for a variety of problems
6. An understanding of professional and ethical responsibility
7. An ability to communicate with agency representatives, superiors, subordinates, and peers with precision and clarity
8. Recognition of the need for the ability to engage in lifelong learning
9. Knowledge of contemporary aviation industry issues
10. Students will demonstrate knowledge of business applications relating to the management of flight operations.

MEASUREMENT AND ASSESSMENT PROCESS

TIMELINE OF ASSESSMENT

The Aviation Department uses an annual (Academic Year) process to look formally at an outcome or set of outcomes. Plans are developed in August, lead faculty for each outcome are assigned, interim reviews are conducted in January, draft reports are due in June, and final reports are due no later than October.

Each of the above outcomes has a methodology developed to assist with evaluation of each outcome. The current measurement criteria correspond with the list above.

The review is undertaken by one aviation faculty member who reviews the syllabi and the assignments that have been chosen to measure this outcome. Once the initial review has been completed, the faculty member presents the findings to the entire aviation faculty for review. The collected information is archived after approval of the full aviation department faculty. The assessment strategy for each outcome is listed in Section IV.

SIGNATURE DATA

We collect signature data from a minimum of one course per learning outcome as evidence in support of I-R-M charts found in the Course Outcomes section of this document. This becomes the basic evidence in applying the above over-arching methodology.

HOW ASSESSMENT RESULTS ARE USED AND BY WHOM TO DOCUMENT SUCCESSES AND SHORTCOMINGS

The Aviation Department uses external and internal assessments to identify areas of weakness and

where possible areas of interest. When shortcomings are determined, plans are developed and resources are gathered to address these issues.

Minutes are the primary set of evidence indicating future actions. Formal assessments do result in plans to address shortcomings as well as to take no action when the process provides validation.

HOW PLANS ARE ESTABLISHED TO ADDRESS SHORTCOMINGS

This depends on the level of resources required. In most cases, the faculty makes changes to the courses as needed or recommended. In very rare instances issues are raised to the Vice President for Academic Affairs and, as appropriate, to university faculty committees or other administrators.

PERTINENT CONSTITUENTS

The following departments and committees participate in assessment of outcomes. Identified program recommendations are followed up with syllabi changes, course flow adjustments, and program development to address short comings.

- The Curriculum Committee and Core Committee
- Assessment Committee

STUDENTS

Students pursuing a Bachelor of Science degree in Aviation Management and/or a Bachelor of Science degree in Flight Operations meet Department Student Learning Outcomes through a series of courses with appropriate course outcomes. Aviation academic advisors are critical in the progress to a successful graduation audit. Key evidence can be found in the Registrar's office with the use of graduation audits as well as continuous updating of course needs through the advising portion of Jenzabar found within the faculty section of MyUD. Standards for entry to the University of Dubuque have been established as follows:

FIRST YEAR STUDENTS

An applicant for admission to the University of Dubuque undergraduate program must be a graduate of a high school or possess equivalent (GED), or possess an approved home school diploma. High school graduates should possess a minimum of 15 high school units of which 10 shall be from academic fields (English, Social Studies, Natural Science, Mathematics, Foreign Language). Preference is given to students in the upper one-half of their graduating class with an ACT score of 18 (SAT 850) or higher. After a thorough evaluation, the Dean of Admission may admit students who fail to meet these admission standards, but demonstrate potential to benefit from and complete a University of Dubuque Education. In most cases these students may be admitted to the Bridge Program as a condition of admission. In such cases, active participation in the Bridge Program is mandatory.

TRANSFER STUDENTS

The progress of transfer students will be evaluated on a case-by-case basis. After the Registrar has evaluated transfer credit hours, the student will develop an academic plan with the faculty advisor. Transfer students, at the time of matriculation to UD, will enter with a class standing in accordance with the number of credits earned and accepted by the University of Dubuque for prior education at other institutions.

The University of Dubuque will accept all courses passed at an accredited bachelor's degree-granting institution, provided the overall grade point average (GPA) for those courses is 2.0 or better. If the student's cumulative GPA at the institution from which the credits are transferred is less than 2.0, the University will accept all credit for courses in which grades earned were C or better. Transfer students should note that courses deemed equivalent to the skills courses of the UD Core Curriculum will not transfer to the University of Dubuque with a grade of less than C, independent of the cumulative grade point average for all transferring credits:

- CIS 101-Introduction to Computers or CIS 103-Computer Applications in Business
- COM 101-Speech Communication
- ENG 101-Composition and Rhetoric
- UDMA 111-Collegiate Math or UDMA 112-Algebra or UDMA 250-Calculus or PHL 114-Logical Reasoning
- RES 104 – Research Writing

If a chosen academic major does not count grades of less than a C in courses taken to fulfill major requirements, it may be necessary to repeat a course or courses. Students should be aware that a minimum cumulative grade point average (GPA) of 2.00 for all credits taken as well as a minimum grade point average (GPA) of 2.00 for credits in an academic major is required for graduation. Exceptions include the Elementary Education and Nursing majors. Consult department listings for specific details on GPA requirements of all majors.

Transfer students must earn at least 60 credits from an accredited bachelor's degree-granting institution. At least 30 of the last 36 credit hours earned must be earned in residence at the University of Dubuque. The only exception is if transferring to UD with an Associate's degree, then 56 credits are required.

Students entering the University of Dubuque with an Associate of Arts or Associate of Science degree from an accredited two-year or four-year institution will be considered to have completed all components of the UD Core Curriculum, with the exception of the Judeo Christian Tradition, World View III and World View IV components of the core. For most programs of study, World View III and World View IV will be covered by courses completed as a part of the major requirement.

Academic Suspension: Students on academic probation who do not perform satisfactory work towards removing themselves from academic probation during the next term in which they are enrolled are subject to suspension or dismissal. The university reserves the right at any time to suspend any student who is not making satisfactory academic progress towards a degree. The time period of suspension will be for at least one term (fall or spring). Students requesting to return to the University of Dubuque after the suspension period should contact the Admission Office to apply for re-admission.

Students placed on academic suspension or probation at the end of a Spring term may have their academic records reviewed the following August to determine if any academic credits received for summer coursework, either in residency or elsewhere, will affect their academic standing. It is the responsibility of the student to notify the Registrar of any summer coursework taken prior to the start of the fall term.

CREDIT FOR PRIOR LEARNING

In some cases, students may receive University of Dubuque credits for demonstrating that they have already achieved certain learning outcomes that are the focus of UD coursework.

ADVANCED PLACEMENT

College credit is awarded to those students entering the University of Dubuque from high school who present proper evidence of having taken college level Advanced Placement (AP) examinations in one or more subjects with the College Entrance Examination Board, provided the scores are sufficiently high. Students are required to present to the Registrar official AP score reports prior to enrolling for their first term of attendance at the University of Dubuque. An AP score of 3 or higher will earn credits in accordance with the credit value of the equivalent University course.

COLLEGE-LEVEL EXAMINATION TESTING (CLEP)

The College-Level Examination Program® (CLEP) offers students the opportunity to receive college credit for what they already know. Students can earn qualifying scores on any of the 33 introductory-level college subject examinations and accelerate their education. The 90-minute exams are administered at the University of Dubuque in the Academic Success Center (ASC).

Visit www.collegeboard.org/CLEP to find out more about CLEP, where a list of the examinations available through CLEP, a list of the colleges and universities that offer class equivalencies for CLEP exams, and exam preparation materials can be found.

CLEP exams may be scheduled at the University of Dubuque as allowed by available space in the ASC Testing Center.

CREDIT BY EXAMINATION

If appropriate, a student may seek to earn "credit by examination" for specific UD courses by passing a special examination prepared by the instructor of a course. A student pursuing this option is not permitted to attend the regular course sessions prior to taking the examination. Permission of the instructor must be obtained and a fee paid before such an examination is administered.

CREDIT FOR NON-COLLEGIATE EDUCATIONAL EXPERIENCES (ARMED SERVICES)

College credit may be granted to veterans for service schools attended. Recommendations of the Guide to the Evaluation of Educational Experiences in the Armed Forces, prepared by the American Council on Education, will be used to determine if credit will be allowed.

PORTFOLIO OF EXPERIENTIAL LEARNING

The portfolio program, administered by the Vice President and Associate Dean for Academic Affairs, is for those whose prior experiential learning cannot be evaluated by any of the methods discussed previously. Students prepare a portfolio explaining and documenting how they achieved specific learning outcomes that are the focus of UD coursework. The portfolio is assessed for possible credit by faculty in the academic department petitioned.

To be eligible, candidates must be admitted students and have earned a minimum of 15 credits at an accredited college or university, at least six of which must have been taken as a UD student. The maximum number of credits able to be earned via portfolio is 20% of the total number of credits required for the departmental major. A fee equal to 20% of the current undergraduate per-credit-hour tuition will be charged. Students interested in this option should apply to the relevant department.

STUDENT LEARNING OUTCOMES

The following Assessment plans are created for use by the Aviation Management and Flight Operations programs for use as a road map for Baccalaureate programs as per 3.3.2. Each program can utilize the assessment plan for recognition of weaknesses and strengths, as well as create quality enhancements for continuance improvements. All goals, assessments, and outcomes are assured to be covered in a systematic fashion in conjunction with the IRM matrix in the subsequent tables.

The program goals, the student learning outcomes for the program, student learning outcomes for AABI, and the student learning outcomes for the University are all laid out to assure that each outcome is aligned with the other program outcomes, university outcomes, and student-learning outcomes as well as the benchmarks, timelines, and responsible parties. If a particular outcome is not met then the assessment plan assures that a new plan for achieving outcome is created, or a re-evaluation of the benchmark is completed, or that particular conclusion is reexamined to assure validity and reliability of outcome.

The data collected guarantees that each goal is met or exceeded. The assessment plan allows for class flow, scheduling, evidence collecting, and the reexamination of goals for continuous improvements of rigor, consistency and currency.

Assessment Plan for Calendar Year: 2017

Program:		Aviation Management
Program Mission:		The mission of the Aviation Department is to provide students with the professional skills that allow for success in all segments of the aviation industry while enhancing their critical thinking and decision making abilities for individual development and a successful career.

Assessment Plan

Program Goals *"What are the broad goals and purposes of our program?"*	**Program Student Learning Outcomes** *"What specific, measurable outcomes do we want to achieve?"*	**AABI SLO**	**College SLO**	**Key Indicators/Procedures** *"What direct vs indirect actions/instruments will we use to measure outcomes?"*	**Benchmarks/Criteria for Success** *"How will we determine whether we meet our goals & outcomes?"*	**Timeline** *"When will the key indicators be measured?"*	**Person(s) Responsible** *"Who will implement the action/instrument?"*
1) Establish excellence in professional preparation. 2) Foster a zeal for lifelong learning. 3) Develop professional skills enhanced by technology. 4) Integrate safety processes throughout all flight and ground activities. 5) Be good stewards of equipment, facilities and other key resources.	1) The ability to assess contemporary issues in the aviation environment and demonstrate the impact of aviation, technology and business sustainability within societal and global contexts	I, G	6	Assignments and activities in courses utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2019	AVI Professor
	2) An ability to apply the techniques, skills, and modern aviation management tools to perform business related tasks	H, J	1,2,5,6	Assignments and activities in courses utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2019.	AVI Professor

	3) An ability to function on a multi-disciplinary and diverse management team which includes technical and management issues	C, K, G	1,2,4,6	Assignments and activities in courses utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Review completed spring 2017	Ken Godwin
	4) An ability to apply knowledge of mathematics, science and/or applied science to ensure safe and efficient operations	A, J	1,2,5,6,8	Assignments and activities in courses utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Review completed spring 2017.	Chaminda Prelis
	5) An ability to accurately analyze and interpret data to solve a variety of problems	B, K	1,2,5,6	Assignments and activities in courses utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2018.	Ken Godwin
	6) An ability to recognize and apply ethical and professional excellence for responsible decision making	D	3,8,9	Assignments and activities in courses utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2018	Eric Savage

	7)	An ability to communicate effectively with precision and clarity, within aviation and related industries	E	2,4,6,8	Assignments and activities in courses utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2019	AVI Professor
	8)	An ability to recognize the need for and engage in lifelong learning	F	2	External: Alumni survey Internal: Survey of graduating seniors	90% of respondents will commit to life-long learning.	Scheduled for review spring 2018.	Chaminda Prelis

	Linkage to UD's Mission & Goals/Remarks
	Program goals and outcomes are directly mapped to UD Mission and goals.

Assessment Plan for Calendar Year: 2017

Program:		Flight Operations
Program Mission:		The mission of the Aviation Department is to provide students with the professional skills that allow for success in all segments of the aviation industry while enhancing their critical thinking and decision making abilities for individual development and a successful career.

Assessment Plan

Program Goals *"What are the broad goals and purposes of our program?"*	**Program Student Learning Outcomes** *"What specific, measurable outcomes do we want to achieve?"*	**AABI SLO**	**College SLO**	**Key Indicators/Procedures** *"What direct vs indirect actions/instruments will we use to measure outcomes?"*	**Benchmarks/Criteria for Success** *"How will we determine whether we meet our goals & outcomes?"*	**Timeline** *"When will the key indicators be measured?"*	**Person(s) Responsible** *"Who will implement the action/instrument?"*
1) Establish excellence in professional preparation. 2) Foster a zeal for lifelong learning. 3) Develop professional skills enhanced by technology. 4) Integrate safety processes throughout all flight and ground activities. 5) Be good stewards of equipment, facilities and other key resources.	1) An understanding of the impact of aviation and technology within societal and global contexts	i	6	Assignments and activities in courses or flight labs utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2019	FLI Professor
	2) An ability to apply techniques, skills, and modern aviation tools to flight operations	h, j	1,2,5,6	Assignments and activities in courses or flight labs utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2019	FLI Professor
	3) An ability to function on a multi-disciplinary team and operate as a crew member in an aircraft cockpit	c	1,2,4,6	Assignments and activities in courses or flight labs utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass	Scheduled for review spring 2019	FLI Professor

					the end-of-course evaluation on the first attempt		
4)	An ability to apply knowledge of mathematics, science and aerodynamic principles to ensure safe and efficient flight operations	a, j	1,2,5,6, 8	Assignments and activities in courses or flight labs utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Review completed spring 2017	Tony Foster
5)	An ability to accurately analyze and interpret data to solve a variety of problems	b	1,2,5,6	Assignments and activities in courses or flight labs utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Review completed spring 2017	Brett Ray
6)	An ability to recognize and apply ethical and professional excellence for responsible decision making	d	3,8,9	Assignments and activities in courses or flight labs utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Review completed spring 2017	Polly Kadolph
7)	An ability to communicate effectively with precision and clarity within aviation and related industries	e	2,4,6,8	Assignments and activities in courses or flight labs utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2018	Polly Kadolph

	8)	An ability to recognize the need for and engage in lifelong learning	f	2	External: Alumni survey Internal: Graduating senior survey	90% of respondents to the survey will indicate a commitment to life-long learning.	Scheduled for review spring 2018	Chaminda Prelis
	9)	Demonstrate knowledge of contemporary aviation industry issues	g	1,2,5,6	Assignments and activities in courses or flight labs utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2018	Tony Foster
	10)	Demonstrate knowledge of business applications relating to the management of flight operations	k		Assignments and activities in courses or flight labs utilizing department approved rubrics.	AVI Courses: 80% of the students completing the assignment score 75% or above. FLI Courses: 80% of the students successfully pass the end-of-course evaluation on the first attempt	Scheduled for review spring 2019	FLI Professor

	Linkage to UD's Mission & Goals/Remarks
	Program goals and outcomes are mapped to UD mission and goals.

CURRICULUM

AVIATION MANAGEMENT DEGREE REQUIREMENTS

The Aviation Management major includes a set of Aviation Core courses, Foundation courses, and Aviation Industry Electives. The Aviation Core and Foundation courses result in a minimum of 45 credit hours. Additionally, students must also complete a minimum of 9 credit hours of Aviation Industry Electives. This results in a minimum of 54 credit hours.

The following Aviation Core courses are required:
AVI 121 – Fundamentals of Flight Operations (2) or AVI 131 – Basic Ground School (6)
AVI 145 – Safety & Ethics in Aviation (1)
AVI 233 – Air Transportation (3)
AVI 322 – Aviation Human Capital & Employee Management (3)
AVI 333 – Aviation Security & Crisis Management (3)
AVI 341 – Aviation Law (3)
AVI 349 – Aviation Safety Management (3)
AVI 444 – Air Transport Economics & Finance (3)
AVI 485 – Aviation Internship (3-6) or AVI 496 – Aviation Policy Seminar (3) or AVI 491 – Independent Research (3-6)

The following Foundation courses are required:
BAC 120 – Macroeconomics (3)
BAC 201 – Principles of Management (3)
BAC 241 – Principles of Financial Accounting (3)
BAC 242 – Principles of Managerial Accounting (3)
COM 210 – Interpersonal Communication (3) or BAC 324 – Leadership & Motivation (3) or BAC 332 – Negotiation & Conflict Management (3)
MATH 230 – Statistics (3)

Students are required to take a minimum of 9 credits out of the following Aviation Industry Electives:
AVI 234 – Procedures & National Airspace System (3)
AVI 337 – Airport Management (3)
AVI 344 – Corporate Aviation (3)
AVI 346 – Airline Management (4)
AVI 348 – Fixed Base Operations (3)
AVI 404 – Air Traffic Operations & Management (3)
AVI 434 – Human Factors (3)

Sample Aviation Management Program of Study

FLIGHT OPERATIONS DEGREE REQUIREMENTS

The Flight Operations major includes a set of Aviation Core courses and Aviation Industry Electives, as well as an airplane or helicopter track completion.

The following Aviation Core courses are required:

AVI 131 - Basic Ground School (6)

AVI 145 - Safety and Ethics in Aviation (1)

AVI 214 - Aviation Meteorology (3)

AVI 231 - Ground School- Instrument (4)

AVI 232 - Ground School- Advanced (3)

AVI 233 - Air Transportation (3)

AVI 349 - Aviation Safety Management (3)

AVI 401 - Applied Aerodynamics (3)

AVI 434 - Human Factors (3)

FLI 131 - Flight Training I (3)

FLI 132 - Flight Training – Commercial Cross Country (2)

FLI 231 - Flight Training – Instrument (3)

FLI 232 - Flight Training – Commercial Maneuvers (2)

*MATH 150 - Precalculus (4) or Higher Level Mathematics or PHY 151 - Gen Physics I & Lab (4)

Airplane Track

AVI 332 - Advanced Aircraft Systems/CRJ (3)

AVI 435 - Ground School – Multi-Engine (2)

AVI 447 - Crew Resource Management and Advanced Systems (3)

FLI 334 - Flight Training – Complex/High Performance Aircraft (2)

FLI 435 - Flight Training – Multi-Engine (2)

The Flight Operations (airplane track) degree is designed for a student to qualify for the Restricted-ATP. Students should consult with an aviation academic advisor to confirm they have the necessary FAA-LOA 60 credit hours. Students already having private pilot certificate (without instrument rating) or transfer credits may need to choose additional FAA-LOA approved courses from the following electives in order to qualify for the Restricted-ATP.

The FAA-LOA requires the instrument rating and commercial certificate must be earned (14 CFR 141) at the University of Dubuque. FAA-LOA Elective courses include:

AVI 234 - ATC Procedures and National Airspace (3)

AVI 305 - Avionics Systems (3)
AVI 306 - Aircraft Systems and Components (3)

AVI 404 - Air Traffic and Operations (3)
AVI 430 - Fundamentals of Instruction (2)
AVI 431 - CFI Aeronautical Knowledge (3)
AVI 432 - CFI Instrument Ground School (3)
FLI 431 - CFI Flight Training-Airplane (2)
FLI 432 - CFII Flight Training-Airplane (1)
FLI 433 – MEI Flight Training-Multi-Engine (2)
PHY 151 - General Physics I & Lab (4)

Sample Flight Operations Program of Study – Airplane Track

Helicopter Track
AVI 430 Fundamentals of Instruction (2)
AVI 431 - CFI Aeronautical Knowledge (3)
AVI 432 - CFI Instrument Ground School (3)
FLI 431 - CFI Flight Training (2)
FLI 432 - CFII Flight Training (1)

All students are required to take a minimum of 9 credits out of the following Aviation Industry Electives:
*AVI 237 – Helicopter Operations (3)
AVI 322 – Aviation Human Capital & Employee Management (3)
AVI 333 – Aviation Security and Crisis Management (3)
AVI 337 – Airport Management (3)
AVI 341 – Aviation Law (3)
AVI 344 – Corporate Aviation (3)
AVI 346 – Airline Management (4)
*AVI 348 – Fixed Base Operations (3)
*AVI 496 – Aviation Policy Seminar (3)

*Course not approved for FAA-LOA Reduced Aeronautical Experience requirements

Sample Flight Operations Program of Study – Helicopter Track

Completion of the airplane track requires 65 semester credits while the helicopter track requires 63 semester credits.

COURSE OUTCOMES

The following IRM Matrix uses Introduce, Review, and Master to coordinate the designated courses utilized by the aviation department. The IRM was created to assure that the university and program mission objectives are met. Each of the mission goals is outlined in a systematic fashion to identify the class selected as the delivery vehicle for the three levels of content. The Introduction, or I, allows for defining and demonstrating the outcome at a simple knowledge- based level. The Review, or R, allows for redefining of the outcome in a similar or alternative fashion for a deeper level of comprehension at an application or analysis level. The Master, or M, provides the deepest level of cognition. This assures that the student has an understanding that allows for ideas or content to be understood at an evaluative or creative level of understanding.

This matrix assures that all outcomes are visited by the professors in at least three courses. This also assures overlap of content is minimized and that the student enrolls in the coursework that contains the outcomes necessary for the degree the student is seeking. This matrix also allows for course changes, content changes, and new material, as well as comparative analysis.

Aviation Management Outcomes (Catalog Update 2018)								
	1 The ability to assess contemporary issues in the aviation environment and demonstrate the impact of aviation, technology and business sustainability within societal and global contexts	2 An ability to apply the techniques, skills, and modern aviation management tools to perform business related tasks	3 An ability to function on a multi-disciplinary and diverse management team which includes technical and management issues	4 An ability to apply knowledge of mathematics, science and/or applied science to ensure safe and efficient operations	5 An ability to accurately analyze and interpret data to solve a variety of problems	6 An ability to recognize and apply ethical and professional excellence for responsible decision making	7 An ability to communicate effectively with precision and clarity, within aviation and related industries	8 An ability to recognize the need for and engage in lifelong learning
CORE				**I**				**I**
AVI 121					**I**	**I**		
AVI 145						**I**	**I**	**I**
AVI 233	**I**					**R**	**I**	**R**
AVI 322	**R**		**M***				**R**	
AVI 333	**R**							
AVI 341	**R**							
AVI 349	**R**				**R***	**R***		**R**
AVI 444		**M***		**M***				
AVI 485/496/491							**R**	
AVI 495	**M***					**M**	**M***	**M**
PRF 201						**R**	**R**	**R**
BAC 120		**I**						
BAC 201		**I**	**I**					
BAC 241		**I**						
BAC 242		**I**						
COM 210/ BAC 324/332			**I**					
MATH 230				**R**	**R**			
AVI 234								
AVI 337		**R**	**R**		**M**			
AVI 344		**R**	**R**		**M**			
AVI 346		**R**	**R**		**M**			
AVI 348		**R**	**R**		**M**			
AVI 404					**M**			
AVI 434								
ALUMNI SURVEY								*

Flight Operations – Fixed Wing Outcomes (Catalog Update 2018)										
	1 An understanding of the impact of aviation and technology within societal and global contexts	2 An ability to apply techniques, skills, and modern aviation tools to flight operations	3 An ability to function on a multi-disciplinary team and operate as a crew member in an aircraft cockpit	4 An ability to apply knowledge of mathematics, science and aerodynamic principles to ensure safe and efficient flight operations	5 An ability to accurately analyze and interpret data to solve a variety of problems	6 An ability to recognize and apply ethical and professional excellence for responsible decision making	7 An ability to communicate effectively with precision and clarity within aviation and related industries	8 An ability to recognize the need for and engage in lifelong learning	9 Demonstrate knowledge of contemporary aviation industry issues	10 Demonstrate knowledge of business applications relating to the management of flight operations
CORE										I
AVI 131/132		I		I	I					
AVI 145						I				
AVI 214					R					
AVI 231		R								
AVI 232		M*		R						
AVI 233	I						I	I	I	R
AVI 241		R	I		R					
AVI 332			I							
AVI 349	R					R*			R	
AVI 401				R						
AVI 434			R							
AVI 435		R								
AVI 447			M*				R			
FLI 131										
FLI 132										
FLI 231										
FLI 232				M*						
FLI 334										
FLI 435										
MATH 150 / PHY 151					R					
AVI 495	M*					M	M*	M	M*	
PRF 201						R	R	R		
AVI 322										R
AVI 333							R			
AVI 337	R				R					
AVI 341						R				
AVI 344					R					
AVI 346					M*			R		M*
AVI 348					M					
AVI 496							R			
ALUM. SUR.								*		

Flight Operations – Rotor Wing Outcomes (Catalog Update 2018)										
	1 An understanding of the impact of aviation and technology within societal and global contexts	2 An ability to apply techniques, skills, and modern aviation tools to flight operations	3 An ability to function on a multi-disciplinary team and operate as a crew member in an aircraft cockpit	4 An ability to apply knowledge of mathematics, science and aerodynamic principles to ensure safe and efficient flight operations	5 An ability to accurately analyze and interpret data to solve a variety of problems	6 An ability to recognize and apply ethical and professional excellence for responsible decision making	7 An ability to communicate effectively with precision and clarity within aviation and related industries	8 An ability to recognize the need for and engage in lifelong learning	9 Demonstrate knowledge of contemporary aviation industry issues	10 Demonstrate knowledge of business applications relating to the management of flight operations
CORE			I							I
AVI 131/132		I		I	I					
AVI 145						I				
AVI 214					R					
AVI 231		R								
AVI 232		M*		R						
AVI 233	I		R				I	I	I	R
AVI 349	R					R*			R	
AVI 401				R						
AVI 430										
AVI 431										
AVI 432										
AVI 434			R							
FLI 131										
FLI 132										
FLI 231										
FLI 232				M*						
FLI 431										
FLI 432										
MATH 150 / PHY 151					R					
AVI 495	M*					M	M*	M	M*	
PRF 201						R	R	R		
AVI 322			M*							R
AVI 333			R				R			
AVI 337	R		R		R					
AVI 341			R			R				
AVI 344			R		R					
AVI 346			R		M*			R		M*
AVI 348			R		M					
AVI 496							R			
ALUM. SUR.								*		

FACULTY AND STAFF

OVERVIEW

The Aviation Programs have 6 well-qualified full-time faculty, 4 adjunct faculty, 4 full-time staff, 11 full-time senior flight instructors, 11 full-time flight instructors, and 15 part-time flight instructors. The program is actively hiring additional full-time faculty and staff positions, including flight instruction staff.

Faculty and staff members are recruited by the Department chair and Chief Flight Instructor, with University support, and a faculty hiring committee.

University of Dubuque policies regarding faculty development are available in the University of Dubuque Faculty Handbook, Section 2.10.

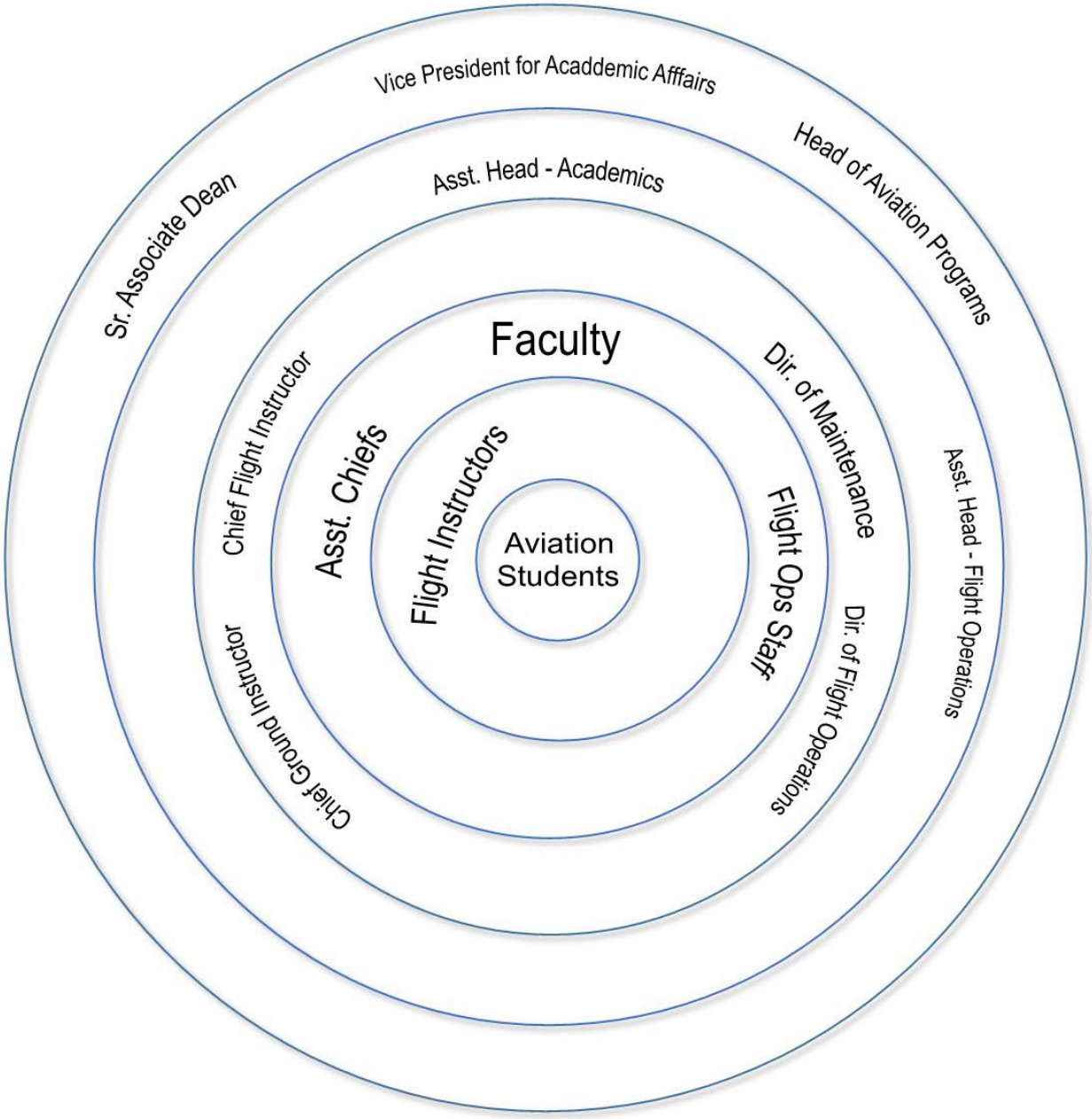
FACILITIES, EQUIPMENT, AND SERVICES

Construction of the Babka Flight Operations Center, the first building designed exclusively for aviation courses, complete with classrooms, flight briefing, and a computer lab, will be completed March 2019. This new construction is located at the Dubuque Regional Airport, a tower-controlled airport providing a complete set of instrument approaches and a maneuvers training area just outside the airport traffic area. The 12,369 sq. ft. facility will provide state-of-the-art flight simulators; technology enhanced classrooms; faculty and senior staff offices and meeting spaces for faculty, students, and prospective students and families.

Successful flight training centers on safety and efficiency and is achieved by using modern aircraft and flight training devices with enhanced technologies. Cessna 172S Skyhawks are used for single-engine training; Piper PA-44 Seminoles are used for multi-engine training; Redbird and Frasca advanced training devices, and an Aerosim CRJ 200 simulator which addresses industry needs through the CRJ/CRM course offerings.

The Aviation Program's faculty, staff, and students receive continuous support from multiple university organizations and outside stakeholders, to include Academic Success Center, Bridge Program, Instructional Design Specialist, Academic Affairs, Center for Advising and Vocation, Charles C. Meyers Library, the Dubuque Regional Airport and the City of Dubuque.

INSTITUTIONAL STRUCTURE AND SUPPORT



AVIATION SAFETY CULTURE AND PROGRAM

Safety is the responsibility of everyone involved within the University of Dubuque (UD) aviation program. It is the objective of this program to proactively improve and maintain the highest levels of safety attainable within a collegiate flight program. It is imperative that all involved within the operations of the flight program are aware of, and participate in, the safety policies contained within this document. Students will be required to follow the policies and procedures set forth by this document and the Student Flight Manual. Employees of UD will be required to follow all policies and procedures set forth by this document and the Staff Manual. Safety is of the utmost importance and will not be considered an unnecessary expense. The necessary resources will be allocated to assure the highest levels of performance and safety. Continued improvement through incorporation of new technologies and regular review of current procedures and policies will be the standard of performance. In order for safety management systems (SMS) to benefit, there needs to be an open dialogue between all levels and departments. This communication can be through a non-punitive hazard reporting program, interviews, focus groups, or surveys. If there are ever instances in which a member of the program observes unsafe behavior or experiences an incident or accident, the immediate reporting of that act in question is key. Members of the UD flight program should not be apprehensive to report hazards or self-report cases of unintentional incidents or accidents. Punitive action will only be utilized in cases of violations, or intentional non-compliance, from provisions listed within this manual and other UD policy documents.

This statement of safety policy and objectives is the standard for the UD flight program. This policy will be communicated throughout all departments that are involved with aviation and across any and all participants of flight-related activities. The method of this communication will depend on how the individual entered the program and the level of involvement with operations. This manual will be readily accessible to anyone seeking guidance on safety policies and objectives. Electronic access to this document will be maintained on the UD website and printed copies will be maintained at key locations as reference for students and employees including, but not limited to, dispatch desk, business office, Director of Operations office, and the Aviation Safety Manager office.

- All incoming aviation majors will be required to take an introductory class that will introduce the policies and procedures for safety within the UD flight program. This class will be designed to ensure all participants are familiarized with the policies and safety procedures for the program through introduction to the content of documents including the SMS Manual and Student Flight Manual.
- All new employees involved in the UD flight program will have to be trained on all safety policies and procedures. These employees include, but are not limited to, Safety Manager, Program Director, all faculty, Chief Flight Instructor, Assistant Chief Flight Instructors, flight instructors, Director of Operations, dispatch personnel, maintenance personnel, business office personnel, and all student workers. It will be the responsibility of the designated managerial individual within that department to train any new employees on the safety policies and objectives of the program. In cases in which there is not a defined managerial individual to provide the training, the Aviation

Safety Manager will provide that training.

The Director of Aviation Programs, Aviation Safety Manager and all managers will convene at a minimum of three times per year (e.g. May, September, and January) to review safety policies and objectives. The goal of this process will be to assure all policies and objectives are relevant and appropriate. Utilization of student personnel to provide an initial review through tools such as GAP analysis can and should be employed in order to provide new perspectives on policies and objectives within the program.

RISK DEFINITIONS AND MITIGATION PROCESSES

This process will define the levels of severity and likelihood that will be used during the risk management process, in order to measure the levels of risk with an associated hazard. When a hazard is being processed in order to define the associated levels of risk, each hazard will be assigned an initial risk index (IRI). After mitigation strategies are put in place to reduce the risk by decreasing the likelihood and/or severity, a final risk index (FRI) will be assigned. Once the risk is calculated and the associated risk indexes are available, the Aviation Safety Manager must consult the following risk matrix to determine the level of risk:

Risk Likelihood		Risk Severity				
		Catastrophic **A**	Hazardous **B**	Major **C**	Minor **D**	Negligible **E**
Frequent	**5**	**5A**	**5B**	**5C**	**5D**	**5E**
Occasional	**4**	**4A**	**4B**	**4C**	**4D**	**4E**
Remote	**3**	**3A**	**3B**	**3C**	**3D**	**3E**
Improbable	**2**	**2A**	**2B**	**2C**	**2D**	**2E**
Extremely Improbable	**1**	**1A**	**1B**	**1C**	**1D**	**1E**

Once the risk is calculated and assessed on the above matrix, actions will be based on the color coding:

- Red = Unacceptable
- Yellow = Acceptable with mitigation
- Green = Acceptable

In order to provide subjectivity and consistency to the assessment and allocation of risk to the identified hazards, a standardized scale for measuring severity and likelihood is necessary. The methods by which the Aviation Safety Manager should assign risk indices will be based on the following criteria:

Severity of Consequences			**Likelihood of Occurence**		
Severity Level	Definition	Value	Likelihood	Definition	Value
Catastrophic	Aircraft/Equipment destroyed; multiple deaths	**A**	Frequent	Likely to occur; weekly or daily	**5**
Hazardous	Large reduction in safety margins, physical distress or workload such that aviation service providers cannot be relied upon to perform	**B**	Occasional	Likely to occur sometimes; monthly	**4**

	their tasks accurately or completely; serious injury or death; major equipment damage				
Major	Significant reduction in safety margins, reduction in the ability of aviaiton service providers to cope with adverse operating conditions as a result of an increase in workload, or as result of conditions imparing their efficiency; serious incident; injury to persons	**C**	Remote	Unlikely, but possible to occur; semesterly	**3**
Minor	Nuisance; operating limitations; use of emergency procedures; minor incident.	**D**	Improbable	Very unlikley to occur; yearly	**2**
Negligible	Little consequence	**E**	Extremely Improbable	Almost inconceivable that the event will occur	**1**

SAFETY PERFORMANCE MONITORING AND MEASUREMENT

The UD flight program will utilize a variety of methods to monitor the compliance and standards of safety set forth by this document and other UD manuals.

One method by which the UD flight program will monitor operational processes is through flight data monitoring (FDM). The means by which this process will take place may vary. One method is through random recreations of previous flights. Either the Aviation Safety Manager or other designee may review the flight to ensure compliance and safety.

Another FDM method is through participation in the National General Aviation Flight Information Database (NGAFID). This program will analyze flight data from all appropriately equipped aircraft. This program will serve the purpose of screening large amounts of data and bringing attention to cases in which safety may have been compromised. Whenever flights are identified with tolerances exceeded, further investigation will take place to determine the potential for aircraft damage or compromised safety. The NGAFID database also serves the purpose of providing the general aviation (GA) community with data for analysis. This data is de-identified for anonymity purposes, will be pulled at regular intervals usually to coincide with the 100 hour inspections, and then uploaded to the NGAFID database for analysis.

UD will also utilize students to provide analysis services. This can be done in the form of student workers or as class projects. Student workers or small groups will periodically be assigned one or more flights to analyze for quality assurance. The determination of which flights to analyze can be on a random basis or through FDM methods which flagged particular cases. The analysis process will take place at a minimum of twice per year. It will be a standard for the aviation safety classes to participate in the process of flight operations quality assurance (FOQA).

UD will also utilize students from the aviation safety classes to perform internal audits of ramp operations. Students will go to the airport and monitor ramp operations to ensure policies and procedures are being followed. The findings from these audits will be submitted and reviewed by the Aviation Safety Manager. Analysis of this data will be performed and presented at periodic safety meetings.

The Aviation Safety Management class will also serve the purpose of evaluating UD's SMS. At least once per semester, a group from the Aviation Safety Management class will perform an audit on the SMS manual and all related documents to ensure compliance, relevance, and appropriateness. The findings from these reports will aid the Aviation Safety Manager and Director of Aviation Programs in their responsibilities of maintaining the SMS.

In the event of an accident or incident, the procedures set forth in the Emergency Manual (see appendix A) should be followed and all appropriate parties need to be notified. In addition, the Aviation Safety Manager will initiate an investigation into the case to determine if there was any evidence of non-compliance. The Aviation Safety Manager will also need to perform a systematic evaluation of the case to determine hazards associated with the case. These hazards will need to be analyzed by the means set forth in the "Safety Risk Management" section of this document. This process will have the end goal of systematically improving safety by reducing the likelihood and/or severity of similar situations from happening in the future.

In the event of intentional non-compliance cases or suspected cases of intentional non-compliance, some manner of disciplinary action may take place. The Aviation Safety Manager will be responsible for compiling any and all data necessary to determine the legitimacy of the non-compliance case. The Aviation Safety Manager will consult with the appropriate manager to determine the proper course of action. The repercussions will be determined on a case-by-case basis and in accordance with supporting documentation (i.e. Student Flight Manual).

All students and employees at UD have the option to report anonymously. This will encourage participation from stakeholders who may be apprehensive to bring their concerns to other forums. These hazard reports may be filed for, but not limited to, the following:

- Hazards
- Issues
- Concerns
- Occurrences
- Incidents
- Proposed solutions
- Safety improvements

SAFETY PERFORMANCE ASSESSMENT

Periodically, the Aviation Safety Manager, Director of Aviation Programs, and all managers will convene to discuss the safety performance of the organization against the safety objectives stated in this document. These meetings must take place at a minimum of three times per calendar year. It is the responsibility of

the Aviation Safety Manager to organize the meeting and coordinate with all necessary managers. During these meetings, the following actions must take place:

- Ensure compliance with the safety risk controls established by the program.
- Evaluate the performance of the SMS.
- Evaluate the effectiveness of safety risk controls established under section 2.3 of this document.
- Identify changes in the operation environment that may introduce new hazards.
- Identify new hazards.

In the event that new hazards or ineffective controls are identified, the Safety Risk Management process must be used to evaluate those hazards and/or controls.

RELATIONS WITH INDUSTRY

AVIATION ADVISORY BOARD

The Aviation Programs solicits advice from an advisory board known as the Aviation Advisory Board (AAB). The board has been active since 2002, meeting yearly each spring. The board consists of 11 industry leaders, including the Department chair. A concentrated effort is made to assure that the membership is diverse and represents all aspects of the aviation industry. The board composition ranges from Flight Department Senior Captains, airport and account managers, flight dispatcher and operations coordinator for major airlines, and community organizer and federal lobbyist.

The purpose of the Aviation Advisory Board is to:

- Solicit information and trends within the aviation industry from knowledgeable sources,
- Recommend program direction for future growth and development
- Identify best practices, equipment, and management techniques for use within the department to ensure educational practices that meet current industry standards and requirements,
- Provide a potential network for placement of aviation graduates
- Evaluate recommended program changes against industry trends
- Develop aviation fund raising programs, when necessary, to support program improvements

Expected gains:

- Program support (UD, alumni, industry)
- Continued strong placement for our graduates
- Better understanding for UD faculty and staff of the current industry problems and considerations
- Increased contact with aviation alumni providing both students and faculty with cutting edge information
- Industry advocacy of UD aviation programs

Advisory Board meetings are held annually. Minutes are recorded and resolutions are passed. The last meeting of the Aviation Advisory Board was held in April 2018.

Advisory Committee Outcomes

- Validates program direction
- Assists with internship placement
- Conducts focused research in support of change
- Brings current industry experience to academic environment

WORK EXPERIENCE PROGRAMS

Internships give current students and recent graduates the opportunity to gain experience in their prospective career field. The students have opportunities to create their own experience with a smaller

company, such as an FBO or airport, which does not have a standard internship set up. They also have the opportunity to participate in a large, standardized internship at a company such as American Airlines, Cottingham & Butler or Signature Aviation.

Generally, students are given one credit for every 50 hours of work logged for their internship. Credit is determined beforehand and the appropriate number of work hours are then logged. Students will generally work more hours than required for the credit to get a broader sense of what is involved at these companies. Some companies actually move the students from department to department to ensure they experience all different aspects of the business.

PLACEMENT ASSISTANCE

Promoting field specific resources online such as Airline Job Finder, Best Aviation Jobs, Air Jobs Daily, and Aviation Nation.

Providing individual services and programming to enhance technical and soft skills to prepare for the internship and/or employment interview (ie. Professional Document Development, Mock Interview Program)

Promoting internship opportunities for academic and non-academic credit, with student internship sites such as: Aerospace Services International, Inc. – Chantilly, VA.; American Airlines – Dallas/Fort Worth Airport; American Airlines – O'Hare International Airport; American Eagle Airline – Dubuque, IA; Bombardier Flexjet - Warrenville, IL; Cottingham & Butler – Dubuque, IA; Crow Executive Air – Millbury, OH; Dane County Regional Airport –Madison, WI; Denver International Airport; Dubuque Regional Airport; Experimental Aircraft Association – Oshkosh, WI; Global Aviation Resources – West Des Moines, IA; Greater Rockford Airport – Rockford, IL; Metropolitan Airport – Moline, IL; Monticello Aviation, Inc – Monticello, IA; Sierra West Airlines – Oakdale, CA; Southwest Airlines – Dallas, TX; and Springfield Airport Authority – Springfield, IL.

Any UD faculty, instructor or administration is always open to any and all employers and students seeking placements.

UD's Career Services and Aviation/Flight Operations Department consulted with nine pathway/pipeline programs during the 2017-2018 academic year. In an effort to increase the transitions to employment opportunities within the airlines, these consultations were to encourage currently enrolled UD students to actively participate with the airlines and become part of their in-house recruiting pool upon graduation.

Promoting shared industry information, to include internship and employment opportunities for students and alumni.

The University of Dubuque has entered into pathway/pipeline agreements and partnerships with several regional airlines and has placed their requirements and information on the UD website.

STUDENT/INDUSTRY INTERACTION

The aviation department actively seeks opportunities for aviation students to interact with industry professionals. In that effort, and in addition to the opportunities provided by the aviation managed student organizations listed above, individual faculty and staff engage industry professionals in speaking to students or arrange tours of aviation industry facilities.

AVIATION STUDENT ORGANIZATIONS

ALPHA ETA RHO: Students participate in the annual AHP national conference where they have the opportunity to interact with students from other institutions as well as industry leaders. The organization has also organized a number of tours of different facilities and aviation-related organizations such as Midway Airport and ATC facilities in Chicago.

FLIGHT TEAM: Students participate in local, regional, and national NIFA competitions where they have the opportunity to interact with students from other institutions, as well as industry leaders.

WOMEN IN AVIATION: Students participate in the annual WIA International Conference where they have the opportunity to interact with students from other institutions as well as industry leaders. The organization has also organized a number of tours of different facilities and aviation-related organizations such as O'Hare Airport and ATC facilities in Chicago.

ACADEMIC OR COURSE RELATED INTERACTION

Collective Bargaining Exercise – This exercise is conducted in conjunction with students from Loras College (non-aviation students) and is sponsored by the City of Dubuque Area Labor-Management Council.

Facility Tours – Elliott Aviation in Moline, IL; John Deere Aviation in Davenport, IA; American Airlines in Dallas, TX; United Airlines in Chicago, IL.

Professional Services – Students review and/or write operations and safety manuals for local companies.

Washington D.C. Seminar – Every J-term, students are given the opportunity to participate in the University Aviation Association (UAA) sponsored seminar to Washington D.C. Students get an opportunity to interact and learn from peers and faculty from other institutions, as well as industry trade organizations and federal policy makers.

Aviation Safety Meetings – Each semester, the department hosts guest speakers to present at mandatory safety meetings.

CONTINUOUS ASSESSMENT AND IMPROVEMENT

STUDENTS

The University of Dubuque collects data for students on a continuous basis. Student numbers for enrollment are predicated on the 10th day of the semester.

Assessments are done on an annual basis. Data is collected from various sources including Admissions, the Registrar, Institutional Research, the Office of Institutional Advancement, the Office of the Vice President for Academic Affairs, and the Office of Student Life, as well as Aviation Department faculty and staff. Assessments are done for placement, retention, graduation rates, and admissions.

Action plans are discussed during department meetings and may include other department personnel, such as the Vice President for Academic Affairs, admission representatives, student life personnel, institutional advancement personnel, institutional research personnel, and the Office of Registrar, as well as other administrative personnel.

The Aviation Department supports the UD mission as adopted by the Board of Trustees mission and the admission policies that result. Selecting key evidence is a coordinated activity utilizing performance information provided by the Bridge Program Director. Additionally, close coordination occurs with the Director of the TRIO program and the Academic Support Center (ASC) to ensure quality student progress.

PROGRAM MISSION AND EDUCATIONAL GOALS

The University of Dubuque collects data for educational goals on a continuous basis. Rolling assessments are done continuously. Each educational goal has a specific action plan based on the annual review.

Information is gathered from faculty, students, alumni, administration, industry advisory board, HLC, and AABI accreditation functions to inform assessments.

Formal review of the mission and educational goals occurs during periods after the Board of Trustees validates or redefines the UD Mission-Vision-Action plan.

Action plans are discussed during department meetings and may include other department personnel, such as Vice President for Academic Affairs, admission representatives, student life personnel, institutional advancement personnel, institutional research personnel, or the Office of Registrar, as well as other administrative personnel.

STUDENT LEARNING OUTCOMES

The University of Dubuque collects data for Student Learning Outcomes on a continuous basis. Rolling assessments are done on a continuous basis. Each Student Learning Outcome has a specific action plan based on the annual review process.

Assessment and improvement plans are discussed and created during department meetings and may include other campus or department personnel, as well as other administrative personnel.

Alternate teaching methods, alternate assignments, alternate objectives, or other variables are discussed to provide the best plan going forward to address the shortcomings. All assessments are reviewed for effectiveness and scheduled for additional assessments based on findings.

CURRICULUM

Data is collected from various sources, including faculty, flight instructors, and staff. Assessments are done for each shortcoming identified.

Action plans for improvements are individually-tailored for objective shortcomings. Action plans are discussed and created during department meetings and may include other campus or department personnel, as well as other administrative personnel.

Alternate teaching methods, alternate assignments, alternate objectives, or other variables are discussed to provide the best plan going forward to address the shortcomings. All assessments are reviewed for effectiveness and scheduled for alternative assessments based on findings.

FACULTY AND STAFF

The University of Dubuque collects data for faculty and on a continuous basis. Rolling assessments are also done on a continuous basis.

Each faculty and staff has an annual review. Each faculty member is visited by the Vice President for Academic Affairs in their first year of teaching. Faculty members are also visited in the classroom on an annual basis by the department chair. Faculty members are encouraged to use peer review and critiquing of various classes taught. Faculty is also reviewed by student evaluations on annual basis. Each course and faculty is surveyed for many points of effectiveness.

These evaluations are shared with the department chair, the Vice President for Academic Affairs, and the individual faculty member themselves. If a faculty is found to be deficient in some manner, each faculty has a specific action plan based on the annual review.

Data is also collected from various sources, including Faculty, Flight Instructors, and staff for objective and subjective effectiveness. Action plans for improvements are individually tailored for faculty shortcomings. Action plans are discussed and created during individual one-on-one meetings with the department chair or Vice President for Academic Affairs.

FACILITIES, EQUIPMENT, AND SERVICES

Equipment, facilities, and services are all reviewed for usefulness, currency, and desired replacements or upgrades. UD maintenance and engineering is responsible for routine maintenance and repairs. Work orders and invoices are utilized for tracking and recordkeeping.

The department chair, along with the UD administration and UD Board of Trustees, are kept updated regarding long- term infrastructure needs. Plans are generated with the advice of appropriate experts such as engineers, architects, computer information specialists, or others.

As the Department chair cites the need for updates or changes, the chair will then approach the appropriate UD administrative official. If deemed appropriate, the cited need will be placed on the agenda

of the Board of Trustees. The board has final approval for major improvements as well as budgeting for that agenda item. Continuous review and analysis is done to assure effectiveness of all program-desired outcomes.

INSTITUTIONAL STRUCTURE AND SUPPORT

Timeline (schedule) of assessments— Each August during faculty meetings, departments are expected to meet and discuss the previous year's assessment plan for their department, analyze the data, and report on the results. At this same time, the departments are to use these results and create the assessment plan for the upcoming year. They may continue with the previous year's plan if it is still relevant or make any edits/updates to the plan as they see fit to ensure they are continually improving the program.

What, how, and from whom data are collected — Each department assigns a person responsible to implement the measures and gather the results for each assessed outcome; although many times this is a group effort, one person is assigned the responsibility of ensuring that the measures are in place and that the data is gathered for analysis at the faculty meetings.

How assessment results are used and by whom to document successes and shortcomings — In addition to the assessment report for the previous year and the assessment plan for the upcoming year, the departments are each provided a worksheet which asks questions pertaining to the effectiveness of their plans. This worksheet challenges the departments to critically analyze whether the measures they have in place are truly leading to the outcomes chosen for their students asks the department to highlight the successes and how they will continue them;, and requires the department to identify its shortcomings and what it will do differently to address them.

How plans are established to address shortcomings — through the assessment process each August, departments are expected to put a plan together to address any shortcomings. With the use of the assessment worksheet, the department is asked to determine the root of the shortcoming and how it intends to improve over the following year.

How the assessment results are used to improve program effectiveness — The assessment process is continually analyzed to ensure that the information collected is valuable data in each department's efforts to continually improve program effectiveness. The use of department meetings during established faculty meeting week ensures that everyone in each department is involved in the assessment process and understands the value it provides to continuous improvement. The plans, reports, and worksheets have been developed with the sole purpose of helping departments use their assessment results in planning for continual improvement.

AVIATION SAFETY CULTURE AND PROGRAM

The UD aviation program has a designated safety officer who is charged with data collection, data dissemination, and evaluation of all available information. Students must attend mandatory safety meetings that are scheduled each semester. An annual standardization meeting is required for all flight instructors and faculty. Anonymous reporting is used to collect potential safety concerns. All flight instructors are charged with being vigilant with any safety concerns. The curriculum requires an aviation safety course

(AVI 349), an aviation ethics and safety course (AVI 145), and an aviation human factors course (AVI 434) for degrees in Aviation Management and Flight Operations. These classes are currently implementing an audit and information distribution portion to the class that will augment safety as well as communicate issues to the faculty and staff on a regular basis. A newsletter will be created and organized by students within the class. Continuous review and analysis is done to assure effectiveness of all program safety outcomes.

Meetings are scheduled to review the data collected through safety reports a minimum of once a semester. Additional meetings are scheduled as needed.

Any incident that a person may feel is unsafe, whether it is ground ops, in the air, or on the aviation shuttle driving to and from campus can be reported via the Safety Reporting Form, verbal communication, or electronically by anyone who witnesses the unsafe action. This includes students, instructors, University faculty or staff, ATC, and community members.

The results are documented by the Safety Manager and shared primarily with the Department Chair, Chief Flight Instructor, and the Maintenance Manager. For resolutions as necessary, the information is used to determine if the Aviation Program is getting the desired results from any recent changes that may have been made or if there are any areas which need improvement.

After an area is identified as needing improvement, key staff members and/or faculty members are gathered to find solutions in order to improve the program. Many of the employees of the aviation department have a wide variety of outside experience that helps when a solution is needed.

The assessment results are helpful in identifying areas that need improvement and in being able to address issues before they become a problem. The results can be passed on to instructors and students so they can also be aware of areas that need to be addressed and be more intentional in that specific area.

RELATIONS WITH INDUSTRY

Relations with industry are addressed via several means. An annual Academic Advisory board meeting is held to obtain resolutions from members regarding specific questions and concerns composed during the course of the previous year. The advisory board is asked for input on most all current or relevant topics. An update is given regarding program changes and modifications being contemplated due to regulatory, economic, or demographic changes encountered.

In addition, each course reviews guest speakers and other industry involvement on an annual basis. Guest speakers for safety meetings are also reviewed prior to every meeting.

Continuous review and analysis is done to assure effectiveness of all program desired outcomes.