

Assessment Plan Layout Table 2023-2024

School of Aeronautics

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Assessment Plan Layout Table for all Aviation programs

[] = Core course, [] = Professional Pilot course, [] = Aviation Management course. *Red font* indicates the assessment report was submitted but no evidence was attached

Learning Outcome What should a student be able to know, value, or be able to do upon graduation and beyond?	Data Collection and Analysis 1. What assessment tools and/or methods will you use to determine achievement of the learning outcomes? 2. Describe how the data from these tools and/or methods will be/have been collected. 3. Explain the procedure to analyze the data.	Date and Person Responsible for Data Collection and Analysis When will the data be collected? Who is the faculty professor in charge of collecting and analyzing it?	Results of Evaluation What were the findings of the analysis?	Use of Evaluation Results 1. List any specific recommendations. 2. Describe changes in curriculum, courses, or procedures that are proposed or were made or are being made as a result of the program learning outcome process?
PHYS 3500 Aviation Physics Students must demonstrate the ability to apply mathematics, science, and applied sciences to aviation-related disciplines. AABI Outcome A	A.1: Students must be able to identify, execute, solve, and evaluate concepts and equations related to the solution of problems within aviation physics. 1. An exam. 2. Embedded test questions about the specific topics will be inserted in the test. 3. At least 80% of students will score 80% or more on these specific questions.			



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AWSC 2115 Private Pilot Theory Flight students must demonstrate the ability to apply mathematics, science, and applied sciences to aviation-related disciplines. AABI Outcome A	A.2: Students will describe the principles of aircraft design, performance and operating characteristics; and the regulations related to the maintenance of aircraft and associated systems. 1. The assessment tool will be the final exam. 2. Embedded test questions about the specific topics will be inserted in the test. 3. At least 80% of students will score 80% or more on the specific questions.			
AWSC 4600: Airline Management Aviation Management Students must demonstrate the ability to apply mathematics, science, and applied sciences to aviation related disciplines	A.2: Students will analyze and airline's financial data reports to calculate: operating ratio, Return on investment (ROI), profit margin and aircraft utilization among other information. 1. The assessment tool will be an exam. 2. Embedded test quest questions / problems about the specific topics will be inserted in the test. 3. At least 80% of students must score 80% or more on these specific questions.			



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AWSC 3160 Commercial Pilot (Ground Portion) Flight students must demonstrate the ability to apply mathematics, science, and applied sciences to aviation-related disciplines. AABI Outcome A	A.3: Students must be able to predict the airplane's performance capability by using math, concepts and equations to solve for weight and balance problems. 1. The assessment tool used will be the second exam. 2. Embedded test questions about the specific topics will be inserted in the test. 3. At least 80% of students will score 80% or more on these specific questions.			
AWSC 4600 Airline Management Aviation Management Students must demonstrate the ability to analyze and interpret data AABI Outcome B	B.1: Students will demonstrate the ability to analyze and interpret an airline's financial data report 1. The assessment tool will be an exam. 2. A financial report extracted from an airline's annual report was used for students to analyze while answering embedded test questions. 3. At least 80% of students must score 80% or more on these specific questions.			



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AWSC 3155 Instrument Pilot (Ground portion) Flight students must demonstrate the ability to analyze and interpret data. AABI Outcome B	B.1: Students will discuss the impact of meteorology and environmental issues on aviation operations by being able to analyze and correctly interpret weather data from Graphic Weather Sources and Printed Weather Reports and Forecasts. 1. The assessment tool used will be an exam. 2. Embedded test questions about the specific topics will be inserted in the test. 3. At least 80% of students will score 80% or more on these specific questions (8-9 and 11).	Dr. Jonathan Velazquez Spring 2024	Only 64% of the students scored 80% or higher in the pre-determined questions.	This course was underenrolled and this specific session was delivered with less time than typical. Looking forward we will make sure more time is allotted to this topic. In addition, the syllabus and Training Course Outline need to be revised to eliminate surplus topics no longer necessary or applicable (e.g., Radar Summary Chart, Enroute Flight Advisory Service, etc.)
AWSC 3155 Instrument Pilot (Flight portion) Flight students must demonstrate the ability to analyze and interpret data. AABI Outcome B	B.2: Students must be able to examine and properly interpret the data contained in instrument approach charts and translate these instructions into actions and procedures. 1. The assessment tools used are a flight performance check using a rubric. 2. The second stage check or End-of-Course (EOC) is used to evaluate the student's knowledge of Instrument Approach			



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	Charts and the execution of this information during flight operations. A specially designed rubric measures the student's competence in both of these aspects. 3. The student must be found acceptable in both to pass the stage check and therefore, demonstrate achievement in this outcome.			
AWSC 4310 Human Factors in Aviation Students must demonstrate the ability to work effectively in multi-disciplinary and diverse teams. AABI Outcome C	C.1: Students will perform in collaborative learning by analyzing accident reports. Later they will deliver an oral presentation on the complete nature of the accident. 1. A rubric will be used for peer evaluation of teamwork by students themselves. 2. This rubric has a total score of 25 points. 3. At least 80% of students must score 20 or more on the rubric.			



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AWSC 4680 Aviation Strategic Management Aviation Management Students must demonstrate the ability to work effectively in multi-disciplinary and diverse teams. AABI Outcome C	C.2: Students must be able to perform in collaborative learning by analyzing performance of an airline through a simulation program. 1. The assessment tool will be a Peer Evaluation Report. 2. The Peer Evaluation includes a score. 3. 80% of students must score at least 80% on this teamwork evaluation.	Prof. Caroline Ocasio Spring 2024	95% of students scored 80% or higher in the Peer Evaluation Report	Assessment Goal was met. No changes necessary.
AWSC 4384 Training Techniques for Flight Crew (Crew Resource Management) Flight Students must demonstrate the ability to work effectively in multi-disciplinary and diverse teams. Outcome C	Course was not offered during current term.			
AWSC 4100 Career Development for Aerospace Professionals	D.1: Students must discriminate between ethical versus unethical practices and between professional and unprofessional behavior within the aviation industry.			



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Students must demonstrate the ability to make professional and ethical decisions AABI Outcome D	1. The assessment tool used will be an exam. 2. Embedded test questions about the specific topics will be inserted in the test. 3. At least 80% of students will score 80% or more on these specific questions.			
AWSC 4370 Flight Instructor (ground portion) Flight students must demonstrate the ability to make professional and ethical decisions AABI Outcome D	D.2: Students must be able to evaluate a professional and ethical issue related to the practice of flight instruction and/or professional pilot. 1. The assessment tool used will be an essay 2. Essay will be evaluated using a rubric. 3. 80% of students must score at least 80%			
AWSC 4680: Aviation Strategic Management Aviation Management Students must demonstrate the ability to make professional and ethical decisions. AABI Outcome D	D.2: Students must be able to determine whether or not actions could be considered ethical through using the concept of Corporate Governance in an exam's essay question. 1. The assessment tool used will be exam 3. 2. Essay test question about the specific topic will be inserted in the test.			



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	3. At least 80% of students must score 80% on this specific question.			
AWSC 2130 English Proficiency for Aviation Professionals Students must demonstrate the ability to communicate effectively, using both written and oral communication skills. AABI Outcome E	E.1: Students must be able to demonstrate ICAO oral proficiency skills, to at least Level 4 (operational level), in pronunciation, structure, vocabulary, fluency, comprehension, and interaction. 1. An ICAO rubric is used to evaluate the oral interview. 2. The maximum score is 6 points for all interview components. 3. At least, 80% of students must obtain a level/score of 4 points or higher on each final course interview criterion.			
AWSC 4310: Human Factors in Aviation Students must demonstrate the ability to communicate effectively, using both written and oral communication skills. AABI Outcome E	E.2: Students must be able to write an original essay on a current subject in Aviation Human Factors where he/she evaluates aviation safety and the impact of human factors on safety. 1. The assessment tool will be an essay, 2. graded with a rubric. 3. 80% of students must score 80% on this rubric.			



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AWSC 4370 Flight Instructor (ground portion) Flight students must demonstrate the ability to communicate effectively, using both written and oral communication skills. AABI Outcome E	E.3: Students must be able to create and present a preflight lesson on a selected pilot maneuver and/or aeronautical topic, from an instructional standpoint as it would be taught to a student. 1. A special rubric will be used to evaluate the oral presentation and another rubric will be used to evaluate the student's ability to construct and write a lesson plan. 2. Both rubrics contain specific set of criteria on (instructional communication) which will be evaluated by this rubric. 3. 80% of students must score 80%.			
AWSC 4100 Career Development for Aerospace Professionals Students must demonstrate the ability to engage in and recognize the need for life-long learning.	F.1: Students must be able to demonstrate an awareness of the professional development required for each aviation specialty. 1. The assessment tool used will be an exam. 2. Embedded test questions about the specific topics will be inserted in the test.			



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AABI Outcome F	3. At least 80% of students will score 80% or more on these specific questions.			
AWSC 4370 Flight Instructor (Ground portion) Flight students must demonstrate the ability to engage in and recognize the need for life-long learning. AABI Outcome F	F.2: Students must be able to demonstrate the need for personal and professional enhancement by being able to write an Integrated Paper pointing out resources for professional development (including those for independent learning) and elucidating their importance. 1. The assessment tool will be an Integrated Paper, 2. evaluated using a specialized rubric. 3. At least 80% of students must score 80 percent.			
AWSC 4680: Aviation Strategic Management Aviation Management Students must demonstrate the ability to engage in and recognize the need for life-long learning. AABI Outcome F	F.2: Students must be able to demonstrate the need for personal and professional enhancement by being able to write an integrated paper pointing out resources for professional development. 1. The assessment tool will be an integrated paper evaluated using a specialized rubric. 2. At least 80% of students must score 80% percent.	Prof. Caroline Ocasio Spring 2024	89% of students scored 80% or higher in the Integrated Paper	Assessment Goal was met. No further action necessary, currently.



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AWSC 3300 Aviation Law Students must demonstrate the ability to assess contemporary issues. AABI Outcome G	G.1: Students must be able to evaluate agreements and/or laws affecting the aviation industry today. 1. The assessment tool used is a written project. A rubric measures the student's ability to research on a current law or agreement that affects the aviation industry today. 2. After research, the student will explain the proposed changes to existing regulations or to the U.S. Code of Law. 3. 80% of students must score 80% (7 or higher) on the rubric criterion.			
AWSC 4310 Human Factors in Aviation Students must demonstrate the ability to assess contemporary issues. AABI Outcome G	G.2: Students must be able to conduct research and write an original essay on the contemporary issues surrounding a human factors topic. The purpose of this essay is to allow students to analyze the current and future state of issues regarding aviation human factors. 1. The assessment tool is an essay graded with a rubric.			



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	2. The rubric includes a criterion called: Analysis of human factors contemporary issues and impact on aviation today. 3. Students must score at least 8 out of 10 points in this specific measure.			
AWSC 4370 Flight Instructor (ground portion) Flight students must demonstrate the ability to assess contemporary issues. AABI Outcome G	G.3: Students must be able to research a topic affecting the flight instruction and/or professional pilot industry today. 1. The assessment tool used will be an essay, 2. Evaluated using a rubric. 3. 80% of students must score at least 80%			
AWSC 3155 Instrument Pilot (Flight portion) Flight students must demonstrate the ability to use the techniques, skills, and modern technology necessary for professional practice. AABI Outcome H	H.1: Students must be able to execute a fully planned IFR cross-country from departure to destination demonstrating use of navigational technology, cockpit resources, and technical flying skills for departure, enroute, and arrival procedures. 1. The assessment tools used are a performance check using a Checklist-style rubric. 2. The third stage (performance) check is			



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	used to evaluate the student in IFR cross-country procedures. The checklist contains eight (8) execution aspects (criteria) which students must demonstrate in order to successfully pass the stage check, and therefore, evidence achievement of the outcome. 3. The student must demonstrate all 8 specific skills, concepts, or processes.			
AWSC 4100 Career Development for Aerospace Professionals Students must demonstrate the ability to use the techniques, skills, and modern technology necessary for professional practice. AABI Outcome H	H.1. Students will demonstrate the necessary technical knowledge, verbal communication, and soft skills to successfully pass an industry interview 1. The assessment tool is an interview graded with a rubric. 2. The maximum score is 4 points for all interview components. 3. At least, 80% of students must obtain a score of 3 points or higher on each applicable interview criterion.			



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AWSC 3160 Commercial Pilot (Flight Portion) Flight students must demonstrate the ability to use the techniques, skills, and modern technology necessary for professional practice. AABI Outcome H	H.2: Commercial students will demonstrate a broad understanding of the role and skills of the commercial pilot. At least 80% of students pass the FAA practical test, during their first attempt. The practical test is administered by FAA representatives or designated pilot examiners independent of IAUPR.			
AWSC 4680: Aviation Strategic Management Aviation Management Students must demonstrate the ability to use techniques, skills and modern technology necessary for professional practice. AABI Outcome H	H.2: Students used an e-simulation called “Airline” to demonstrate the ability to run an airline business. 1. The assessment tool is a written report using a specialized rubric. 2. At least 80% of students must score 80% or more on the written report.	Prof. Caroline Ocasio Spring 2024	100% of students scored 80% or higher in the Peer Evaluation Report	Assessment Goal was met. No changes necessary.
AWSC 4370 Flight Instructor (Flight Portion) Flight students must demonstrate the ability to	H.3: Flight instructor students will demonstrate a broad understanding of the role and skills of the flight instructor pilot.			



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use the techniques, skills, and modern technology necessary for professional practice. AABI Outcome H	At least 80% of students pass the FAA practical test, during their first attempt. The practical test is administered by FAA representatives or designated pilot examiners independent of IAUPR.			
AWSC 2000 Introduction to Aeronautics and Space Students must demonstrate the ability to assess the national and international aviation environment. AABI Outcome I	I.1: Students must be able to discriminate between acts and regulations affecting the aviation industry domestically and internationally. 1. The assessment tools used will be an Exam. 2. Embedded test questions about the specific topics will be inserted in the tests. 3. At least 80% of students will score 80% or more on the specific questions.			
AWSC 2020 Aviation Fundamentals Students must demonstrate the ability to analyze and interpret data. AABI Outcome I	I.2: Students must explain the integration of airports, airspace, and air traffic control in managing the National Airspace System. 1. The assessment tool will be an exam. 2. Embedded test questions about the specific topics will be inserted in the test.			



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	3. At least 70% of students will score 70% or more on the specific questions about the topics. (These targeted questions were: 1-4, 24-29, 32-39, and 41).			
AWSC 2115 Private Pilot Theory Flight students must demonstrate the ability to assess the national and international aviation environment. AABI Outcome I	I.2: Students must explain the integration of airports, airspace, and air traffic control in managing the National Airspace System. 1. The assessment tool will be an exam. 2. At least 80% of students will score 80% or more on the specific questions.			
AWSC 3600 Aviation Safety and Security Students must demonstrate the ability to assess the national and international aviation environment. AABI Outcome I	I.3: Flight students must be able to explain the international accident investigation process including the role of the International Civil Aviation Organization and other regional and national authorities. 1. The assessment tool used will an exam. 2. An embedded short essay question will be inserted in the exam regarding this topic.			



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	3. At least 80% of students will score 80% or more on this specific question.			
PHYS 3500 Aviation Physics Students must demonstrate the ability to apply pertinent knowledge in identifying and solving problems. AABI Outcome J	J.1: Students must be able to identify, execute, solve, and evaluate concepts and equations related to the solution of problems within aviation physics. 1. The assessment tool used will be an exam. 2. Embedded test questions about the specific topics will be inserted in the test. 3. At least 80% of students will score 80% or more on these specific questions.			
AWSC 3600 Aviation Safety and Security Students must demonstrate the ability to apply pertinent knowledge in identifying and solving problems. AABI Outcome J	J.2 Students must be able to identify the hazards and risks associated with a safety scenario and propose methods to reduce the levels of risk to as low as reasonably practical (ALARP). Once the students identify the related hazards, they will determine the likelihood and severity of the risks associated with the situation. In the end, the students will propose methods to reduce			



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	the risks to levels as low as reasonably practical (ALARP). 1. The assessment tool will be a written report of a case study. 2. This report has a maximum value of 10 points. 3. 80% of students must score 8 points in the written report.			
AWSC 4370 Flight Instructor (Flight portion) Flight students must demonstrate the ability to apply pertinent knowledge in identifying and solving problems. AABI Outcome J	J3: Students must be able to assess and correctly perform so as to identify and solve simulated in-flight emergencies. 1. The assessment tool to be used is a specially developed rubric utilized during the End-of-Course or final performance check of CFI candidates. 2. Students must be found acceptable and commendable on all criteria. 3. After each performance check is satisfactorily completed the data will be collected and the student will be recommended for certification (practical test).			



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AWSC 4000: Airport Development and Operations Students must be able to demonstrate the ability to apply knowledge of business sustainability to aviation issues. AABI Outcome K	K.1: Students must be able to evaluate different methods available to increase the airport capacity and reduce possible delays associated with the operations. Based on a given scenario, the student will identify possible areas of conflicts in terms of the safe and efficient flow of aircraft in and out of the airport. The student will analyze different approaches to alleviate or eliminate the situation. Finally, the student will design a strategy to implement it as the action plan to follow. 1. The assessment tool will be a written and oral project corrected with a rubric. 2. The rubric is especially designed to evaluate the students on a defined set of criteria. 3. 80% of students will score 80% on this rubric			
AWSC 4204: Air Carrier Operations Flight students must be able to demonstrate the ability to apply knowledge	K.2: Students must be able to conduct research on airline strategies to offer innovative solutions towards sustainable air carrier operations in terms of development, economy, and/or social standpoints.			



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of business sustainability to aviation issues. AABI Outcome K	1. The assessment tool will be a written project corrected with a rubric. 2. 80% percent of the class roster must score 8 or more on the specific rubric criterion measuring sustainability to aviation.			
AWSC 4680 Aviation Strategic Management Aviation Management Students must demonstrate the ability to engage in and recognize the need for life-long learning. AABI Outcome K	Students must be able to apply knowledge of business sustainability to aviation issues by analyzing the company and writing a paper identifying the strategies used for sustainability. This was a team project. 1. The assessment tool will be an analysis paper evaluated using a specialized rubric. 2. At least 80% of students must score 80% percent.	Measured by Prof. Caroline Ocasio during Spring 2021	NA	NA

Additional notes:

Because the School had recently gone through an accreditation program, and all reports had been submitted by then, this table has little assessment activity. In addition, the assessment plans for both programs were revised, and all levels of achievement were raised to 80%. Finally, the School hired a new professor, but she had to depart on a military leave. Thus, she was not able to report assessment. For a new professor typically, assessment training begins on the second year.



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The following table summarizes achievements in the AABI outcomes.

Student Learning Outcomes (155)										
a	b	c	d	e	f	g	h	i	j	k
	0/1									

Student Learning Outcomes (152)										
a	b	c	d	e	f	g	h	i	j	k
		1/1			1/1		1/1			

Proposed goals for next assessment cycle (2023-2024 to 2027-2028):

1. Train and designate a new Assessment Coordinator as now Dr. Velazquez is performing as the School of Aeronautics Dean.
2. Train the new professor on assessment duties.

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