Farmingdale State College

State University of New York

Department of Aviation

Assessment Plan

(updated September 2022)

Table of Contents

Assessment Plan Overview

The Aviation Department has established a formalized plan of assessment to ensure students registered in the aviation degree programs attain the desired program objectives and enjoy continued success upon the completion of their degrees.

The plan is implemented by faculty and staff of the aviation department and satisfies the accreditation requirements of the Middles States Commission on Higher Education, the Farmingdale State College campus and the Aviation department assessment requirements, and the specialized accreditation requirements of the Aviation Accreditation Board International.

Assessment Techniques and Timeline

Program Educational Goals

The Aviation Department's assessment plan is an ongoing process utilizing a variety of techniques to gather and analyze data useful in assessing the degree to which students are achieving the established program level objectives and student learning outcomes.

The Office of the Provost requires each degree program to submit a plan for assessing Program Educational Goals every November, and a completed assessment report based on this plan is submitted every June. The assessment plan requires a minimum of two program-level goals assessed each year and at least one of these goals must have student learning outcomes associated with it. Additionally, *all* Program Educational Goals must be assessed a minimum of once every five years.

Student Learning Outcomes

Course Assessments

Aviation faculty developed an Academic Curricular Matrix (attached) which maps criteria (student learning outcomes) from the Aviation Accreditation Board International (AABI) to the degree program's required courses. Faculty teaching the course develop an assessment tool to measure each criterion mapped to the course. At the conclusion of the semester, faculty complete a department-standardized course assessment form and post it in the aviation repository created on Blackboard for the department of Aviation. Every required aviation course is assessed each academic calendar year to measure the extent to which the program's desired learning objectives are being met. The established goal for each outcome's assessment has been set at 70% of students achieving a minimum grade of C (73%) for the assessment. (A sample completed assessment form is attached. The Aviation department holds an assessment meeting at the end of every semester to review the achievement levels of each course measured that semester. This allows faculty to share their experiences and how they plan to adjust for ccriteriathat did not meet the minimum desired achievement level. This open discussion often leads to brainstorming ideas that help address the issue in the class being discussed and is often applicable in other classes as well. The full repository of course assessments is available for review on Blackboard to FSC Administrators and accrediting teams during site visits.

Additionally, course assessments provide data for the Aviation degree programs' annual assessment plans and reports on Program Educational Goals required by the Office of the Provost (referenced above). In this report, each degree program is required to link the program-level outcomes to a supported college goal. The means of assessment must be stated, as well as the criteria for success. The report includes a summary of major findings for each assessment, as well as an action plan to be taken in addressing the assessment's results, i.e. closing the loop.

Student Course Evaluations

The campus has established a standardized course evaluation form for faculty to administer to students at the end of each semester. Although the course evaluations are voluntary, all faculty are encouraged to utilize this tool to assess their courses from a student's perspective. Data

collected via the anonymous survey include comments on the instructor, the learning process, assignments, exams, textbooks, and suggestions on how the course may be improved.

Faculty are able to review the results of the survey online in the Axiom Mentor program once the semester ends and may opt to share the results with their supervisor and/or may opt to include the results in their faculty annual report. The Provost's Office has advised faculty that student survey results provide important information when determining faculty reappointments and promotions, and highly encourages all faculty to include access to student course evaluations as part of their annual report submission.

Surveys of Graduates

- The Aviation Department surveys graduates to measure students' level of agreement in attaining the programs' objectives, as well as to track their success in attaining employment once their degree has been earned. (Results from the latest surveys are summarized and available on each program's website under "Student Achievement Data".)
    - Goal: 33% survey response. Additional outreach to encourage survey submission will be utilized when response rate is below this goal. Larger sample sizes can assist in more accurately determining success of graduates.

- As part of its data collection mission, the Office of Institutional Research strives to maintain accurate records on all Farmingdale graduates. Surveys are administered to all graduating students when they register for graduation. Surveys are sent again to graduates six months following their graduation. Results are published in an annual report in mid to late June and can be found on the college's intranet under Administrative Documents, Institutional Research tab. (https://intranet.farmingdale.edu/index-institutional_research.html --- this is a password protected site, but can be shared with visiting teams during site visits.)

Capstone Courses

Both degree programs utilize a capstone course requiring students to apply the knowledge they have acquired throughout their degree program. The course is offered to students in their final year of study and requires a minimum grade of C to meet graduation requirements:

- AVN447: Capstone Professional Pilot Seminar is required of all Aeronautical Science – Professional Pilot students. This seminar course requires students to examine key aviation concepts presented in the Pro Pilot degree and connect key learning objectives associated with these concepts to the skills necessary for success in the aviation industry as a pilot. Subject areas include aviation safety, aviation law, crew resource management, physiology of flight, and aviation meteorology. The course requires students to complete comprehensive case studies of aviation accidents utilizing the principles presented in the seminar. A Capstone mentorship flight experience in some of the world's busiest airspace is used as a tool to evaluate student proficiency in the key areas of safety, law, crew resource management, meteorology, and flight physiology.

- Goal: 70% of registered students will earn a C+ (77%) or higher in the course. Analysis of coursework for students not achieving this benchmark grade will be used to identify areas of weakness to enable the instructor to modify course delivery to address these areas.

- AVN471: Aviation Administration Senior Seminar is required as the culminating experience in the Aviation Administration program and serves to prepare students to be life-long problem solvers. The course is designed to integrate topics that students have learned during their course of study. The course includes practical preparation for a career in aviation with opportunities during the semester to participate in industry visits and observations aimed at granting students a competitive edge in applying for entry-level airport operations coordinator and/or industry management positions. Students enrolled in the class are required to complete a group research paper based upon the Airport Cooperative Research Program's "University Design Competition for Addressing Airport Needs". Student research papers are presented at the end of the semester to a panel of experts and, if feasible, at the American Association of Airport Executive's (AAAE) Regional and/or Annual Conferences. This exercise is used to assess students' knowledge of contemporary aviation industry issues, their ability to function on a multi-disciplinary team, and their communication skills; both written and oral.
  - Goal: 70% of registered students will earn a C+ (77%) or higher in the course. Analysis of coursework for students not achieving this benchmark grade will be used to identify areas of weakness to enable the instructor to modify course delivery to address these areas.

Pilot Licensure Pass Rates

The first and second attempt licensure pass rates are reported and reviewed annually to identify any trends in student proficiency rates that may need to be addressed. Modifications are then put into place to address and identify shortcomings in flight training courses. The current agreement with the FAA as per Part 141 federal regulations require FSC to maintain a practical test pass rate of at least 80% on the first attempt for renewal of the FSC Air Agency Certificate. Additionally, this information is reported in the Verification of Compliance report, filed with the Middle States Commission on Higher Education, which requires that the pass rates for licensure examinations for the previous three years be made available to the public. This information may be accessed on the Aviation Center website via the FSC homepage, Academic link: https://www.farmingdale.edu/engineering/avn/pdf/2013_2019_pilot_licensure_pass_rates.pdf

- Goal: 90% pass rate on FAA written exams. An in-depth review will be conducted when the benchmark is not achieved to identify areas of student weakness to enable the instructor to modify course delivery to address these areas.

Departmental Annual Report

Each department is required to file an annual report on Axiom Mentor for the Dean's and Provost's review at the conclusion of each academic year. This comprehensive report includes the following:

- enrollment trends
- changes to the curriculum
- faculty accomplishments
    - research
    - grant activity
    - community outreach
- equipment, facilities, and supplies (physical changes, including the purchase or donation of major equipment, and resources that have been added to effectively enhance objectives. In addition, where applicable, a discussion of what is lacking in support of programs is included.)
- summary of assessment plan
- student issues / complaints

The report is a useful tool in highlighting trends and the overall areas of strengths and weaknesses found within the department, which can then be addressed.

ADDITIONAL AREAS of ASSESSMENT:

Students

- Admissions – The admission process is reviewed each semester due to the high demand for the aviation programs. The Aviation department continues to have demand exceeding capacity, creating a very competitive admissions process. The aviation department meets with admissions to review the pool of applicants each semester.
    - Goal: Accepted students into the Pro Pilot program will have an average HS GPA of 92 or higher.
    - Goal: Accepted students into the Aviation Administration degree program will have an average HS GPA of 85 or higher.

  (Data from the Office of Admissions will be used to assess if these goals are being met. Modifications to the admissions processes will be implemented as needed.)

- Enrollment statistics and retention counts are generated by the Department of Institutional Research and reported every semester. Retention rates are reviewed every five years and trends are analyzed and acted upon as needed.
    - Goal: Graduation rate for Pro Pilot program of 25% or higher.
    - Goal: Graduation rate for Aviation Administration degree program of 50% or higher.

  (Data from the Office of Institutional Effectiveness will be used to assess if these goals are being met. When rates fall below goals, analysis will be conducted on potential causes.)

Program Mission

The department reviews the program mission statements in conjunction with the Aviation Advisory Board every five years, or as needed with changes to the mission of Farmingdale State College.

- Goal: Program mission statements are aligned with the College Mission Statement.
- Goal: Program mission statements remain aligned with industry.

(Changes to FARs and emerging industry trends are analyzed by faculty and advisory board to assure programs' missions remain aligned with industry. Results of analysis will used to implement change or revisions as needed.)

Curriculum

Curriculum review is continuous. Every required aviation course is assessed each calendar year and is posted in the Blackboard repository, making it accessible to all faculty members. Recommended changes to be implemented the next time the course is offered are submitted on the course assessment form. The department and advisory board review the overall relevance of the curriculum annually.

- Goal: 95% compliance with submission of course assessment for required AVN courses each academic year.

(Assessment coordinator will verify assessments are posted in Blackboard repository. Missing assessments will be queried and sought to ensure full assessment of all student learning outcomes; modifications to curriculum and courses will be submitted via CCP (Curriculum Change Process) forms according to the campus guidelines.)

Faculty and Staff

- The timeline and processes of faculty and staff assessments have been set by contract negotiations between SUNY administration and the unions (UUP: United University Professions and CSEA: Civil Service Employees Associations). Untenured faculty are required to be observed in the classroom each year by a tenured faculty member and the department chairperson and once each contract term by the Dean, which is typically a two years. Faculty submit a portfolio of their achievements in the areas of teaching, scholarship and service for each contract period, which is reviewed by the department's CCTA (Continuing and Term Appointment) Committee, Department Chairperson, Dean, Campus-wide CCTA Committee, Provost and ultimately approved for re-appointment or tenure by the President. Additionally, faculty submit an annual report highlighting their achievements at the end of each academic year.
- Staffing needs are assessed annually with the Dean and requests to hire new faculty or staff are reviewed by the Dean and forwarded to the Provost for final approval.
    - Goal: to have sufficient faculty to meet the needs of the program. The student to faculty ratios will be examined for each AVN course annually. Ratios higher than 30:1 will be further analyzed to see if additional faculty are warranted.
    - Goal: 100% of faculty will submit their annual report by June 1 each year. Noted deficiencies can then be addressed with individual faculty to develop performance improvement plans as needed.

Facilities, Equipment and Services

- The Aviation Center leadership team evaluates facilities, equipment and services on an ongoing basis. This frequent examination allows for provision of the best affordable infrastructure and latest technology for our students to optimize their flight training.
- Additionally, students and all Aviation Center Staff members have continuous opportunity to submit suggestions and recommendations via the FSC SMS online reporting system. All submissions are reviewed in a timely manner. The flight center maintains an open-door policy for students to access the Aviation Staff with ideas and suggestions throughout their training.
- The current fleet replacement plan is to acquire new PA28 aircraft as IFR funding permits each year and sell older PA28s in an annual one-for-one swap. This acquisition strategy ensures that students have access to state-of-the-art equipment most appropriate for current industry practices.

    Goal: acquire new PA28 aircraft as funding allows each year and sell older PA28 aircraft to accomplish fleet renewal.

Aviation Safety Culture and Program

- The Aviation Center has developed a formal Safety Management System (SMS) that incorporates continuous safety assessments. The SMS is provided through an online service provider (Baldwin Aviation Inc.) and provides an effective framework for daily, weekly, and monthly assessment and continuous improvement of the safety program and culture.
- SMS program is discussed each week during the safety portion of the weekly staff meeting. The results are also reviewed each month at the CFI Safety Meeting.
    - Goal: Positive external review of FSC safety culture, assessed every 5 years by AABI visiting team. Criterion for success will be no recommendations (mandated updates) in the AABI Visiting Team's Report of their planned fall 2022 visit. (June 2023)

Relations with Industry

- The **Aviation Advisory Board** serves as our formalized relations with industry. The Board consists of a group of individuals highly experienced in many facets of the aviation industry. The Advisory Board meets each semester to conduct a full review of the department's mission and aviation degree programs' curricula measured against current industry needs and trends. Advisory Board members share their insights and suggestions on how the degree programs can be tailored to meet these needs and ensure that graduates of the programs are fully prepared for a career in the aviation industry. Members of the Advisory Board participate in campus events throughout the year (aviation seminars, career days, guest lecturers, Hall of Fame) and make themselves available to students as an industry resource. Board members have individually met with students to mentor them and sharpen their interviewing skills. Additionally, Board members have taken an active role in placing students in internships and full-time employment positions upon degree completion. Board members are appointed to serve for three-year terms. Each spring, the members with

expiring terms are reviewed by faculty. Aviation faculty can elect to recommend reappointment or nominate a new candidate.

- Internship opportunities are assessed on a continuous basis, and faculty strive to increase these opportunities available to students. The Aviation Department has a designated Internship Coordinator that works directly with the Nexus Center to promote all available internships to students.
- Informal relations with industry are formulated by faculty and staff on an on-going basis. Faculty are encouraged to invite guest speakers to campus and to arrange field trips to various industry related sites.
    - Goal: The Advisory Board will maintain an active membership of at least 8 representatives from various facets of industry. This will be reviewed annually.
    - Goal: The Advisory Board will meet every semester.
      (Attendance of members at meetings and participation in campus activities and events will be reviewed each year. New members will be sought to fill expiring terms as needed to maintain a diverse board.)
    - Goal: The Aviation department will host a minimum of 3 guest lecturers per academic year.
    - Goal: The Aviation department will offer a minimum of 2 field trips or industry-site visits per academic year.

Assessment Results

The results of the various assessment tools outlined above serve as the basis for implementing changes as needed to better attain the program objectives and to ensure continuous improvement to the degree programs.

A faculty meeting is held at the end of each semester to review course assessments and to enable faculty to share their best practices. Assessment results from the current semester are compared with the previous semester to see if the changes implemented as a result of the previous assessments, led to a higher level of attaining program goals and desired outcomes.

Student course evaluations are generally used individually by faculty to assess their own effectiveness in the classroom. Student suggestions for course improvements are considered and implemented when practical to do so. Feedback on course materials is used to update materials for future semesters. Student course evaluations also serve as an assessment tool for the Provost in determining faculty reappointments and promotions.

Results from the graduate surveys provide key information on how our most important stakeholders, i.e. students, measure the level of success the degree programs have in obtaining program goals and objectives. Students report how well they have been prepared for placement in industry and provide invaluable suggestions and comments on the strengths and weaknesses they perceive, which enables the department to implement the changes needed for continuous improvement.

The success rates of students completing their required capstone course highlight areas where students have mastered the necessary skills to function as aviation professionals in their chosen careers, as well as to provide critical information on areas needing attention. This information is utilized as a tool to identify topics in previous coursework that need to be emphasized.

Assessment Plan Evaluation

The assessment plan has been developed as a tool to measure how well the degree programs are meeting their stated goals and objectives. It is a fluid document subject to continuous review, which occurs in faculty discussions among themselves, with Advisory Board members, and interaction with industry personnel and students. The plan is formally reviewed at the department's assessment meeting each spring and is revised and updated each fall based upon the previous academic year's assessment results.

Page Intentionally Left Blank

Attachments

- Aviation Administration criteria mapping
- Professional Pilot criteria mapping
- Criteria definitions
- Sample Course Assessment

AVIATION ADMINISTRATION

Course Code & Title	a	b	c	d	e	f	g	h	i	j	k	1	2	3	4	5	6	A	B	P1	P2	P3
AVIATION CORE:																						
AVN 100: General Aeronautics												X	X			X						
AVN 101: Aviation History					X	X							X									
AVN 201W: Safety Ethics			X	X	X	X								X								
AVN 300: Government in Aviation					X				X						X							
AVN 326: Aviation Security Management								X				X										
AVN 350: Air Traffic Management		X							X							X						
AVN 400: Aviation Law									X		X				X							
AVN 401: Aviation Economics	X	X								X												
AVN 471 Aviation Administration Seminar			X		X	X	X		X	X		X								X	X	X
CONCENTRATION																						
Airport Management	a	b	c	d	e	f	g	h	i	j	k	1	2	3	4	5	6	A	B	P1	P2	P3
AVN 271: Airport Capacity/Delay/Airspace/Environment	X		X								X						X					
AVN 370: Airport Financial Management		X					X		X													
AVN 371: Airport Planning													X			X						
AVN 470: Airport Operations										X		X		X								
Flight Management																						
AVN104: Private Pilot Ground	X												X			X						
AVN202: Meteorology		X															X					
AVN 325: Safety of Flight		X					X							X								

GENERAL EDUCATION/ SUPPORTING COURSES:	a	b	c	d	e	f	g	h	i	j	k	1	2	3	4	5	6	A	B	P1	P2	P3	
EGL 101: Composition Rhetoric					X														X				
EGL 102: Composition Literature					X														X				
Basic Communication Elective					X														X				
American/Other World/Western Civ																			X				
ECO 156: Economics Macro																		X	X				
ECO 157: Economics Micro																		X	X				
PHY 116: Meteorology																	X	X					
Natural Science																		X					
PSY 101: Intro to Psychology																		X					
MTH 110: Statistics																		X					
MTH 129: Pre-Calculus with Applications																		X	X				
MTH 130: Calculus I with Applic.																		X	X				
The Arts (GE)																			X				
Foreign Language																			X				
Humanities Elective																			X				
A and S Electives																			X				
BUS 101: Accounting I																					X	X	
BUS 102: Acccounting II																					X	X	
BUS 109 or BUS 111																					X	X	
BUS 259: Public Relations																					X	X	
BCS 300: Mgt of Info Systems																					X	X	

Aeronautical Science: Professional Pilot

Course Code & Title	a	b	c	d	e	f	g	h	i	j	k	1	2	3	4	5	6	A	B	P1	P2	P3	P4
AVN 101: Aviation History					X	X							X										
AVN 104: Private Pilot Ground	X											X				X							
AVN 105: Private Flight to Solo				X						X						X							
AVN 106: Private Flight to Certificate		X						X				X											
AVN 201W: Safety Ethics			X	X	X	X								X									
AVN 202: Aviation Meteorology		X															X						
AVN 208: Instrument Ground		X										X				X					X		
AVN 209 – Instrument Flight	X							X									X				X		
AVN 211:Commercial Pilot Ground	X							X					X										
AVN 212: Commercial Pilot Flight								X				X									X	X	
AVN 300: Government in Aviation					X				X						X								
AVN 309: CFI Ground:					X							X	X							X	X		
AVN 310: Certified Flight Instructor - Flight			X																	X	X	X	
AVN 320: Air Carrier Flight Ops							X									X							
AVN 321: Physiology of Flight										X				X									
AVN 322: Advanced Aircraft Systems								X					X										
AVN 325: Safety of Flight		X					X							X									
AVN 400: Aviation Law									X		X				X								
AVN 410: Comm. Multi Engine																				X	X		
AVN 421: Gas Turbine Engines	X							X					X										
AVN 422: Aerodynamics	X	X											X										
AVN 423: Crew Resource Management			X		X					X													
AVN 424: Advanced Avionics					X		X							X									
AVN 447: Capstone Pro Pilot Seminar				X		X						X		X									X

	a	b	c	d	e	f	g	h	i	j	k	1	2	3	4	5	6	A	B	C1	C2	C3	C4
GENERAL EDUCATION/SUPPORTING COURSES:																							
EGL 101: Composition Rhetoric					X														X				
EGL 102: Composition Literature					X														X				
Basic Comm elective (200 level or higher)					X														X				
American/Other World/Western Civ																			X				
ECO 156: Economics Macro																			X				
ECO 157: Economics Micro																		X	X				
MTH 129: Pre-Calculus with Applications																		X	X				
MTH 130: Calculus I with Applications																		X	X				
The Arts (GE)																			X				
Foreign Language																			X				
Humanities Elective																			X				
PHY 135 – Physics I																		X	X				
PHY 136 – College Physics II																		X					
PSY 101: Intro to Psychology																		X					
PSY 331: Industrial / Org. Psychology																		X					

AABI requirements: BS Aviation Administration and Professional Pilot degrees:

Student Learning Outcomes: General
(a) apply mathematics, science, and applied sciences to aviation related disciplines
(b) analyze and interpret data
(c) work effectively on multi-disciplinary and diverse teams
(d) make professional and ethical decisions.
(e) communicate effectively, using both written and oral communication skills
(f) engage in and recognize the need for lifelong learning
(g) assess contemporary issues
(h) use the techniques, skills, and modern technology necessary for professional practice
(i) assess the national and international aviation environment
(j) apply pertinent knowledge in identifying and solving problems
(k) apply knowledge and business sustainability to aviation issues
Student Learning Outcomes: Aviation Core
(1) Attributes of an aviation professional, career planning, and certification
(2) Aircraft design, performance, operating characteristics, and maintenance
(3) Aviation safety and human factors
(4) National and international aviation law, regulations, and labor issues
(5) Airports, airspace, and air traffic control
(6) Meteorology and environmental issues
Curriculum Content
A. College-level mathematics and basic sciences appropriate to the program
B. General education components that complement the technical content of the curriculum and are consistent with the program and institutional mission and goals
C. Components that satisfy AABI program specific criteria (designated PC below)
AABI Program Criteria (PC) Aviation Management
1. Graduates possess the necessary knowledge, skills, and attitudes to competently and ethically function as a manager in the aviation industry
2. Demonstrate competency in program goals
3. Culminating upper division experience (capstone course, internship, special project)
AABI program Criteria (PC) Professional Pilot: 1. Graduates possess the necessary knowledge, skills, and attitudes to competently and ethically function as professional pilots in the aviation industry 2. Certification as Commercial Pilot, Instrument/ME land or flight instructor 3. Demonstrate competency in program goals 4. Culminating upper division experience (capstone course, internship, special project

Course Assessment Form

Course Number and Title: AVN370, Airport Financial Management Semester & Year: Fall 20XX

Which outcomes / criteria will be assessed?	**What mechanism will be used for assessment?** e.g. exams, term paper, lab reports, discussion, oral presentation, project, other (specify)
b) analyze and interpret data	Exam 1 will embed several questions (true/false, multiple choice, essay) requiring students to analyze and interpret data from graphs and charts contained in the NPIAS Report to Congress. (See questions 16, 17, 18, 30 and 33) Landing fee calculation, module 5 practice assignment 4.
g) assess contemporary issues	Assignment on Branson Airport /private investment in commercial service airports (module 2 assignment), with students leading classroom discussion on their article summary submission. Embedded questions in exam 1 (see questions 26, 31). Exam 2, which focuses on today's airport use agreements and user fee justifications
i) assess the national and international aviation environment	Final exam - the final exam is comprehensive and will be used to assess the students understanding of issues both here in the USA as well as in the international aviation environment

Course Assessment Form
(Assessment Results)

Course Number and Title: AVN370, Airport Financial Management Semester & Year: Fall 20XX

Outcomes / criteria assessed:	**Assessment Results:** **(Indicate what % of class achieved a minimum 73%)**	**Benchmark achieved?** **(Benchmark: 70% of students will score a minimum of 73% = "C")**
b) analyze and interpret data	exam 1 results: Q16 - 84.62%; Q17 – 84.62%; Q18 –76.93%; Q30 – 61.58%; Q33 – 64.0%: AVG = 74.35% landing fee: 45.7/50 (91.4% avg score – 96% above 73)	Embedded test questions on analyzing and interpreting data yielded a 74.354%, just meeting the desired benchmark of 73% Benchmark was achieved for the landing fee calculation
g) assess contemporary issues	Branson airport results: 85.18% avg (89.3% above 73) Embedded questions in exam 1: Q26 – 65.39%; Q31 – 91.3% (essay) AVG = 78.34% exam 2 average: 76.64%	Benchmark achieved for this criterion in first two assessments. Exam 2 average meets 73%, benchmark, yet only 57% of students scored above 73.
i) assess the national and international aviation environment	Final exam: 78.13 avg; 75% of the students scored 73% or better	Benchmark achieved

Course Assessment Form
(Intended Use of Results)

Course Number and Title: ___AVN370, Airport Financial Management **Semester & Year:** ___Fall 20XX_____ __

This page will be used for recommendations to improve the quality of course delivery based on assessment results.
(These recommendations may include prerequisite change; changing course outline and adding more topics; adding a third assessment; changing the course sequence, etc.)

Last year's assessment of criterion (b) – analyzing and interpreting data, did not meet the benchmark of 70% that was in effect at the time. Additional time was allocated this semester in developing student skills in this area, based on the fall 2014 results. This semester's assessment produces an average score of 74.35%, which just meets the department's newly established benchmark of 73%. Deeper analysis revealed that students' scores improved on three out of the embedded exam questions. However, scores were down in the additional two questions designed to measure these skills. Additional practice landing fee calculations were reviewed in class, which led to 96% of the students meeting the established benchmark.

While the additional time spent in this area resulted in greater student success, the results indicate more reinforcement is needed to further develop students' analytical skillsets.

Additional class discussion and work was assigned to develop students' ability to assess contemporary issues (criterion (g). The module on privatization efforts in the commercial airport sector was expanded. Assigned work to assess this ability indicated that close to 90% of the students met the set benchmark. However, exam 2 was also designed around contemporary issues faced by airport management teams and resulted in only 57% of students meeting the benchmark score of 73. Different methods of delivery need to be explored to raise students' ability to assess and understand contemporary issues, such as the various airport use agreements and contracts airport management enters into with the various vendors and airlines.

The final exam, which is cumulative, was used to measure students' ability to assess the national and international aviation environment. For example, students were asked to briefly define and outline three approaches (Administrative, Economic and Hybrid) used to manage demand at congested airports worldwide. 75% of the class scored above 73 on the final exam, which met the benchmark of 70% scoring at least a 73%.

Please attach at least three samples of student work for each outcome's assessment (Display one high, one average and one low score). If you are using different assessment mechanisms for different outcomes, please attach three samples of student work for each task/outcome. For example, if the course outcomes are (a) and (g) and you conducted the assessment of outcome (a) in the exams and outcome (g) in the lab reports, you are required to attach three exams for (a) and three lab reports for (g) as samples of student work ---please see attached samples of student work for each of the assessments posted in Blackboard.