Department of Aviation

Assessment Plan
Revised November 2017
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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 departmental assessment requirements and the specialized accreditation requirements of the Aviation Accreditation Board International.
Assessment Techniques and Timeline

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 outcomes and student learning objectives.

Course Assessments

Aviation faculty developed an Academic Curricular Matrix (attached) which maps criteria 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 course assessment form, and post it in the aviation repository created on Blackboard for the department of Aviation. Every aviation course is assessed each academic calendar year to measure the extent to which the program’s desired learning objectives are being met. (A sample completed assessment form is attached. The visiting team will be granted access to the full repository on Blackboard)

Additionally, course assessments provide the backbone data for the Aviation degree program’s annual assessment plan required by the Office of the Provost. In this report, each degree program is required to link the program 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. (A copy of this report is included in this appendix as an attachment)

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, textbook, 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. (A sample completed survey is attached at the end of this document)

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. (A sample of this survey can be found in appendix G, and the most recent survey results are summarized in Section II, B “Graduates and Placement Data Table)

- 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 and again requests to submit surveys are sent 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](https://intranet.farmingdale.edu/index-institutional_research.html))

**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.

- **AVN471: Aviation Administration Senior Seminar** is required as the culminating experience in the Aviation Administration program and serves to prepare students to be real-life problem solvers. The course design is based upon the AAAE CM (American Association of Airport Executive – Certified Member) modules and the degree program objectives, and builds upon the foundational knowledge established in previous course work. The course design ensures the topics necessary to function as an aviation professional are understood by all students, granting them 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.

**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 identified 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 web via the FSC homepage, linked to the Consumer Information page: http://www.farmingdale.edu/academics/centers-institutes/aviation-education/pass_rates.pdf.

**Aviation Industry Advisory Board**

The Aviation Advisory 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 students’ interviewing skills. Additionally, Board members have taken an active role in placing students in internships and full-time employment positions upon degree completion.

**Departmental Annual Report**

Each department is required to file an annual report on Axiom Mentor for the Dean’s and Provost 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 the overall areas of strengths and weaknesses found within the department, which can then be addressed.
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 are 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 following each semester.
Attachments

- Aviation Administration criteria mapping
- Professional Pilot criteria mapping
- Criteria definitions
- Sample Course Assessment
- Department Assessment Report for Provost
## AVIATION ADMINISTRATION

| Course Code & Title                                             | a | b | c | d | e | f | g | h | i | j | k | l | 1 | 2 | 3 | 4 | 5 | 6 | A | B | P1 | P2 | P3 |
| **AVIATION CORE:**                                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 101: Aviation History                                     | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 126: Aviation Security Management I                       | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 201: Safety Ethics                                        | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 300 W: Government in Aviation                             | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 330: Airline Marketing                                    | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 400: Aviation Law                                         | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 401: Aviation Economics                                    | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 471: Senior Seminar                                        | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN Elective                                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **CONCENTRATION**                                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Airport Management                                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 270: Introduction to Airport Management                   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 271: Airport Cap/Delay/Airspace/Env                       | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 370: Airport Financial Management                         | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 371: Airport Planning                                     | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 470: Airport Operations                                   | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| **GENERAL ED. SUPPORTING COURSES:**                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| EGL 101: Composition Rhetoric                                 | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| EGL 102: Composition Literature                              | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Basic Communication Elective                                  | 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: Accounting II                                        | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| BUS 109 or BUS 111                                            | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| BUS 259: Public Relations                                     | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| BCS 300: Mgt of Info Systems                                  | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 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 |
| AVN 104 – Private Pilot Ground           | x |   |   | x |   | x | x |   |   | x | x |   |   |   |   |   |   |   |   |   |   |
| AVN 101 – Aviation History              |   | x | x |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 105 – Private Flight to Solo        |   |   |   |   |   |   |   |   | x |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 106 – Private Flight to Certificate | x |   | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 201 – Safety Ethics                 | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 202 – Aviation Meteorology          |   |   |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 209 – Instrument Flight             | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 208 – Instrument Ground             |   | x |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 211 – Commercial Pilot Ground       | x |   | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 212 – Commercial Pilot Flight       |   | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 300 W – Government in Aviation      | x |   | x | x |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 321 – Physiology of Flight          | x |   | x | x |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 322 – Advanced Aircraft Systems     | x |   | x | x |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 320 – Air Carrier Flight Ops        | x |   | x | x |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 400 – Aviation Law                  |   |   | x | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 421 – Gas Turbine Engines           | x | x | x |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 422 – Aerodynamics                  | x | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 423 – CRM                           | x | x |   | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 309 – CFI Ground                    |   | x | x |   | x |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 310 – Flight Instructor CFI         | x | x |   | x |   | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 424 – Advanced Avionics             |   |   |   |   | x | x | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |
| AVN 425 – Safety of Flight              | x | x | x | x | x | x | x | x | x | x |   |   |   |   |   |   |   |   |   |   |   |
| AVN 447 – Capstone Pro Pilot Sem        | x | x | x | x | x | x | x | x | x | x | x |   |   |   |   |   |   |   |   |   |   |
| AVN Elective                            |   |   |   | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| A and S Elective                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| EGL 101 – Composition Rhetoric          | x | x | x | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PSY 101 – Intro to Psychology           | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| EGL 102 – Composition Literature       |   |   | x | x |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| MTH 129 – Pre Calculus                  | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| ECO 156 – Economics Macro               | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| PHY 135 – Physics I                     | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| MTH 130 – Calculus I with Apple.        | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| A and S Elective                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Basic Comm. Electve (200 or higher)     | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| PHY 136 – College Physics II            |   |   | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| ECO 157 – Economics Micro               | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Humanities Elective                     | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Modern Language Level II (Elective)     | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| A and S Elective                        |   |   | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Gen Ed Art Elective                     | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| A and S Elective                        |   |   |   | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| PSY 331 – Industrial/Org. Psychology    | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| American/ Other World/Western History   | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | 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)
<table>
<thead>
<tr>
<th>Course Assessment Form</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Number and Title:</strong> AVN370, Airport Financial Management</td>
</tr>
<tr>
<td><strong>Semester &amp; Year:</strong> Fall 2015</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Which outcomes / criteria will be assessed?</th>
<th>What mechanism will be used for assessment?</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>e.g. exams, term paper, lab reports, discussion, oral presentation, project, other (specify)</td>
</tr>
<tr>
<td>b) analyze and interpret data</td>
<td>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.</td>
</tr>
<tr>
<td>g) assess contemporary issues</td>
<td>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</td>
</tr>
<tr>
<td>i) assess the national and international aviation environment</td>
<td>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</td>
</tr>
<tr>
<td>Outcomes / criteria assessed:</td>
<td>Assessment Results:</td>
</tr>
<tr>
<td>-----------------------------</td>
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</tr>
<tr>
<td></td>
<td>(Indicate what % of class achieved a minimum 73%)</td>
</tr>
<tr>
<td>b) analyze and interpret data</td>
<td>exam 1 results: Q16 - 84.62%; Q17 – 84.62%; Q18 –76.93%; Q30 – 61.58%; Q33 – 64.0%; AVG = 74.35%</td>
</tr>
<tr>
<td></td>
<td>landing fee: 45.7/50 (91.4% avg score – 96% above 73)</td>
</tr>
<tr>
<td>g) assess contemporary issues</td>
<td>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%</td>
</tr>
<tr>
<td>i) assess the national and international aviation environment</td>
<td>Final exam: 78.13 avg; 75% of the students scored 73% or better</td>
</tr>
</tbody>
</table>
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 outcomes 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.
Intended Outcomes and Associated College Goals:
(Please note that the following outcomes have been assessed for 2016 – 2017: 1, 3, 4, 6, 7)

1. **Intended Outcome:** Students will demonstrate an understanding of the impact of aviation and technology in a global/societal context.
   
   **College Goal(s) Supported:** The College shall provide students with a broad academic foundation, which includes an appreciation of culture, ethics, aesthetics, citizenship, cultural diversity, and the inter-relationships among the applied arts and sciences, technologies, and society.

2. **Intended Outcome:** Students will have the ability to apply the techniques, skills and modern aviation management tools to perform business related tasks.
   
   **College Goal(s) Supported:** The College shall provide a stimulating environment that results in student learning.

3. **Intended Outcome:** Students will be able to function on a multi-disciplinary management team which includes technical and management issues.
   
   **College Goal(s) Supported:** The College shall encourage students to aspire to be exemplary citizens, scholars, professionals, and leaders in society.

4. **Intended Outcome:** Students will demonstrate the ability to apply knowledge of mathematics and science to ensure safe and efficient operations.
   
   **College Goal(s) Supported:** The College shall provide students with a broad academic foundation, which includes an appreciation of culture, ethics, aesthetics, citizenship, cultural diversity, and the inter-relationships among the applied arts and sciences, technologies, and society.
**Intended Outcomes and Associated College Goals:**

<table>
<thead>
<tr>
<th>Intended Outcome</th>
<th>College Goal(s) Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Intended Outcome: Students will demonstrate the ability to accurately interpret data and design experiments for a variety of problems</td>
<td>College Goal(s) Supported: The College shall provide a stimulating environment that results in student learning.</td>
</tr>
<tr>
<td>6. Intended Outcome: Students will exhibit an understanding of professional and ethical responsibility.</td>
<td>College Goal(s) Supported: The College shall encourage students to aspire to be exemplary citizens, scholars, professionals, and leaders in society.</td>
</tr>
<tr>
<td>7. Intended Outcome: Students will acquire the ability to communicate with agency representative, superiors, subordinates and peers, with precision and clarity.</td>
<td>College Goal(s) Supported: The College shall provide a stimulating environment that results in student learning.</td>
</tr>
<tr>
<td>8. Intended Outcome: Students will recognize the need for, and an ability to engage in, lifelong learning.</td>
<td>College Goal(s) Supported: The College shall encourage students to aspire to be exemplary citizens, scholars, professionals, and leaders in society.</td>
</tr>
<tr>
<td>9. Intended Outcome: Students will exhibit knowledge of contemporary aviation industry issues.</td>
<td>College Goal(s) Supported: The College shall encourage students to aspire to be exemplary citizens, scholars, professionals, and leaders in society.</td>
</tr>
</tbody>
</table>

(Note: Restate intended outcome and indicate corresponding number)
**Intended Outcome: (number _1__)**
Students will demonstrate an understanding of the impact of aviation and technology in a global/societal context.

**First Means of Assessment for Intended Outcome (number __1__):**

1. **Means of assessment and criteria for success:**
   This outcome is measured by mapping AABI criterion i (assess the national and international aviation environment) within the following courses: AVN300W and AVN400. Instructors for these courses have developed exam questions for the assessments of this criterion. The assessment process which includes each individual course assessment along with student work samples for each criterion being assessed is available in its entirety on Blackboard under the community tab "Aviation Accreditation Document Repository".

2. **Description of the sample:**
The entire class results will be used in each course (15 – 30 students per course).

3. **Sampling procedure used to provide data for the assessment:**
No sampling procedure; results from entire class population will be reported.

4. **Summary of major findings for this assessment:**
Student assessments in both AVN300W and AVN400 met the benchmark of 70% of students achieving a score of 73% or higher. AVN300W used the average scores of exams 1 – 4, which resulted in 88% of the students achieving average exam scores of 73% or higher. AVN400 dedicated questions on exam 2 to measure this assessment with 75.8% of students achieving the benchmark. Samples of these assessments are available on Blackboard in the individual course assessments.

5. **Action to be taken in addressing these assessment findings:** Although the overall benchmark of having students demonstrate the ability to assess the national and international aviation environment was achieved, specific questions did not meet the benchmark. After reviewing the questions, the instructor determined topic areas where stronger emphasis should be considered. Since the amount of class time is typically a limiting factor, the instructor plans to adjust the following:
   - In the topic areas that were determined to be easier to grasp, class lecture time will be reduced and replaced with reading and written assignments.
   - Use the additional time freed up in class to focus on areas where achievement fell below 70%.
(Note: Restate intended outcome and indicate corresponding number)

**Intended Outcome: (number 3)**
Students will be able to function on a multi-disciplinary management teams which includes technical and management issues.

**First Means of Assessment for Intended Outcome (number 3):**

1. **Means of assessment and criteria for success:**
   This outcome is measured by mapping AABI criterion c (work effectively on multi-disciplinary and diverse teams) within courses AVN201 and AVN 271. Instructors for these courses have developed means for assessments and report results on an annual basis.

2. **Description of the sample:**
   The entire class results will be used in each course (15 – 30 students per course).

3. **Sampling procedure used to provide data for the assessment:**
   No sampling procedure; results from entire class population will be reported.

4. **Summary of major findings for this assessment:**
   74% of students’ group work in AVN201 and 100% in AVN271 scored above 73% on their group project.

5. **Action to be taken in addressing these assessment findings:** The use of rubrics for group projects made clear the grading criteria for student group work, leading to improved group submissions. Continued use of rubrics will be encouraged among faculty.
(Note: Restate intended outcome and indicate corresponding number)

Intended Outcome: (number 4)
Students will demonstrate the ability to apply knowledge of mathematics and science to ensure safe and efficient operations.

First Means of Assessment for Intended Outcome (number 4):

1. Means of assessment and criteria for success:
This outcome is measured by mapping AABI criteria "a" (apply mathematics, science, and applied sciences to aviation related disciplines) and "6" (have an understanding of Meteorology and environmental issues) within courses AVN270, AVN271 and AVN 401. Instructors for these courses have developed means for assessments and report results on an annual basis. Additionally, all Aviation Administration majors are required to successfully complete 11 credits in Math (pre-calculus; calculus and statistics), as well as 7 credits in Natural Sciences including PHY116, Meteorology.

2. Description of the sample:
The entire class results will be used in each course (15 – 30 students per course).

3. Sampling procedure used to provide data for the assessment:
No sampling procedure; results from entire class population will be reported.

4. Summary of major findings for this assessment:
Students continue to struggle in this area, even with increased class time dedicated to practicing critical thinking exercises and problem solving. The benchmark was not met in 4 out of 6 assessments in AVN271, with the average for the six assessments resulting in 57.3% of students scoring 73% or better.

5. Action to be taken in addressing these assessment findings:
Additional class time spent on problem solving did not lead to an increase in student proficiency. Assigning problems as homework having students’ work individually, may lead to a better result than in-class practice and will be implemented next semester.
(Note: Restate intended outcome and indicate corresponding number)

**Intended Outcome: (number 6)**
Students will exhibit an understanding of professional and ethical responsibility.

**First Means of Assessment for Intended Outcome (number 6):**

1. **Means of assessment and criteria for success:**
   This outcome is measured by mapping AABI criterion d (make professional and ethical decisions) within courses AVN201 and AVN 270. Instructors for these courses have developed means for assessments and report results on an annual basis.

2. **Description of the sample:**
   The entire class results will be used in each course (15 – 30 students per course).

3. **Sampling procedure used to provide data for the assessment:**
   No sampling procedure; results from entire class population will be reported.

4. **Summary of major findings for this assessment:**
   This criterion was assessed last year based on assigned work in AVN270, resulting in a strong display of student proficiency (95% / 100% of students achieved a 70% or higher on the assessments). This year, results from AVN201 were examined with only 57% of students scoring 70% or better on case studies involving business ethical dilemmas.

5. **Action to be taken in addressing these assessment findings:**
   The professor for AVN201 intends to restructure the course to be a more student-centered model aimed at improving the freedom of speech and student learning, with the aim of better understanding of ethical issues and decision making.
Intended Outcome: (number 7)
Students will acquire the ability to communicate with agency representative, superiors, subordinates and peers, with precision and clarity.

First Means of Assessment for Intended Outcome (number 7):

1. Means of assessment and criteria for success:
This outcome is measured by mapping AABI criterion e (communicate effectively, using both written and oral communication skills) within courses AVN101, AVN201 and AVN 300W, which is a writing-intensive course requiring a grade of C or better. Instructors for these courses have developed means for assessments and report results on annual basis. Additionally, students are required to complete EGL101/102 with a grade of C or better and to complete an additional 3 credits in a Basic Communication elective.

2. Description of the sample:
The entire class results will be used in each course (15 – 30 students per course).

3. Sampling procedure used to provide data for the assessment:
No sampling procedure; results from entire class population will be reported.

4. Summary of major findings for this assessment: After last year’s assessment meeting, aviation faculty all agreed to increase the amount of written work in each aviation course in the hopes of improving written communication skills, an area that is repeatedly brought up as a general weakness in the student body. Additionally, a CCP was submitted to have AVN201 changed to AVN201W (writing intensive). AVN300W utilized a research paper as the assessment tool, with 47% of students achieving a grade of 73% or better, less than the desired 70% of students. (96% of students scored a 73% or better in AVN201, which utilized a group presentation as an assessment for communicating effectively)

5. Action to be taken in addressing these assessment findings: Students continue to display sub-par writing skills. The following actions are suggested for implementation to address this area of weakness:

- Continue using Purdue OWL as a source in addition to the APA Style Manual
- Consider dedicating class time of reviewing an “A” paper using APA Style
- Continue doing a group research project as opposed to individual papers
- Continue using a detailed research paper grading rubric for the group research project
- Design “low stakes” writing assignments to build students writing/communication skills
**Concluding Statement:**
What have you learned from this year’s assessment process that could be helpful in the future?

This year marks the third year of the Aviation department's formalized assessment process, which is continuously evolving. Last year’s assessment results proved to be exciting when the recommendations rising from the first assessment cycle were implemented and assessed, most often leading to improved results. Once again recommendations and suggestions from 2015 – 2016 were implemented this year, but often led to flat results for the criteria being assessed. Faculty met on June 8, 2017 to discuss the assessment results, with some interesting revelations:

- The difficulty of comparing assessment results when a course is taught by a different instructor was discussed last year. This year, it was noted that several courses taught by the same instructors opted to assess the criterion by utilizing a different approach. It was generally agreed that the assessment results were directly dependent upon the assessment tool used and that direct comparison of assessment results should not be made. It was agreed that the value of the assessments lie in identifying general areas of student weaknesses that should be addressed.

- The importance of reviewing the last assessment prior to the start of a new semester was emphasized. It was agreed that the course assessment form stating the assessment tool that will be used should be submitted to Blackboard during the first week of each semester. It is hoped that this will have faculty review the prior assessment so that a plan to address cited weaknesses will be incorporated for the current semester.

- Time needs to be set aside to review the assessment process for all adjuncts teaching courses with assessments due.

- Review of the course assessments revealed that some faculty were reporting percentages of students scoring above 70, and other faculty were reporting percentages of students above 73. Faculty had agreed to report using 73 as a benchmark which is consistent with the minimum passing grade of C for all aviation courses.

- Additional modifications in specific courses will be implemented as a result of this year’s assessment process. For example, class time in AVN400 will be modified to have additional time allocated to topics that students scored poorly in, as outlined in the assessment of intended outcome 1 in this report.

- Faculty discussed the lack of proficient communication skills, especially writing skills, present in a large percentage of the student body. A CCP was submitted to have AVN201 offered as a writing-intensive course in future semesters. Faculty
agreed to continue dedicating time and effort to improving students’ writing skills.

- Faculty expressed appreciation for the value of the assessment process and stated the group discussion on the assessment results provided the opportunity for faculty to learn from each other. Grading rubrics were shared among faculty.
ANNUAL ASSESSMENT REPORT
COVER SHEET

Aeronautical Science: Professional Pilot
(Instructional Degree Program / Prof. Area) BS
(Degree Level)

Jeanne Radigan 07/10/17 Fall 2016 – Spring 2017
(Submitted By and Date) (Assessment Period Covered)

Intended Outcomes and Associated College Goals:

10. Intended Outcome: Students will demonstrate the ability to apply knowledge of mathematics, science and applied sciences as a professional pilot

   College Goal(s) Supported: The College shall provide students with a broad academic foundation, which includes an appreciation of culture, ethics, aesthetics, citizenship, cultural diversity, and the interrelationships among the applied arts and sciences, technologies, and society.

11. Intended Outcome: Students will analyze and interpret data relating to aviation.

   College Goal(s) Supported: The College shall provide a stimulating environment that results in student learning.

12. Intended Outcome: Students will be able to function on multi-disciplinary teams as a professional pilot.

   College Goal(s) Supported: The College shall encourage students to aspire to be exemplary citizens, scholars, professionals, and leaders in society.

13. Intended Outcome: Students will exhibit an understanding of the ethical and professional responsibilities of an aviation professional.

   College Goal(s) Supported: The College shall encourage students to aspire to be exemplary citizens, scholars, professionals, and leaders in society.
14. **Intended Outcome:** Students will acquire the ability to communicate effectively, including both written and verbal forms.

**College Goal(s) Supported:** The College shall provide a stimulating environment that results in student learning.

15. **Intended Outcome:** Students will recognize the need for, and an ability to engage in, life-long learning.

**College Goal(s) Supported:** The College shall encourage students to aspire to be exemplary citizens, scholars, professionals, and leaders in society.

16. **Intended Outcome:** Students will exhibit knowledge of contemporary issues relating to professionals in the aviation field.

**College Goal(s) Supported:** The College shall encourage students to aspire to be exemplary citizens, scholars, professionals, and leaders in society.

17. **Intended Outcome:** Students will demonstrate an ability to use the techniques, skills, and modern technology necessary for professional aviators.

**College Goal(s) Supported:** The College shall provide a stimulating environment that results in student learning.

18. **Intended Outcome:** Students will demonstrate the ability to analyze the national and international aviation environment.

**College Goal(s) Supported:** The College shall provide students with a broad academic foundation, which includes an appreciation of culture, ethics, aesthetics, citizenship, cultural diversity, and the interrelationships among the applied arts and sciences, technologies, and society.

10. **Intended Outcome:** Students will demonstrate the ability to apply pertinent knowledge in identifying and solving problems confronting professional pilots.

**College Goal(s) Supported:** The College shall provide a stimulating environment that results in student learning.
Aeronautical Science: Professional Pilot
(Instructional Degree Program / Prof. Area)

Jeanne Radigan 06/29/16
(Submitted By and Date)

BS
(Degree Level)

Fall 2016 – Spring 2017
(Assessment Period Covered)

(Note: Restate intended outcome and indicate corresponding number)

Intended Outcome: (number _1__)

Students will demonstrate the ability to apply knowledge of mathematics, science and applied sciences as a professional pilot

Means of Assessment for Intended Outcome (number _1__):

1. Means of assessment and criteria for success:
   This outcome is measured by mapping AABI criteria "a" (apply mathematics, science, and applied sciences to aviation related disciplines) within courses AVN421 and AVN422. Instructors develop means for assessment and upload their course assessment forms which are available on the Blackboard AABI repository. Ground school (AVN104, AVN209 and AVN211) all require significant comprehension in math and science concepts to pass the course and are also used as a means to assess students’ ability. Students are required to obtain a minimum average of 80% per our agreement with the FAA, to pass these courses. Our goal is to have an 80% pass rate in all ground courses. Additionally, all Aeronautical Science: Professional Pilot majors are required to successfully complete 8 credits in Math (pre-calculus and calculus) as well as 8 credits in calculus-based Physics.

2. Description of the sample:
   The entire class results will be used in each course (approximately 15 – 20 students per course).

3. Sampling procedure used to provide data for the assessment:
   No sampling procedure; results from entire class population will be reported.
4. Summary of major findings for this assessment: The assessment results revealed the following pass rates (average of 80 or better) in the ground courses for the 2016 - 2017 cycle:

AVN104 - private pilot ground: 37/53 = 69.81%
AVN208 - instrument ground: 21/22 = 95.45%
AVN211 - commercial ground: 12/13 = 92.30%

AVN421 (Gas turbine engines) embedded several questions in exams as a measure of students’ ability to apply their knowledge of mathematics and science. The benchmark was set at having 70% of students achieve a minimum average score of 73% on these questions. For the fall 2016 semester, 77% of students achieved an average score of 73 or better on the exam 1 questions, 84% achieved a minimum average score of 73 on the exam 2 questions, and 87% achieved a minimum average score of 73 on exam 3 questions (benchmark achieved). AVN422 assessed students’ ability by analyzing scores from 4 exams, with the following results: test 1: 100% of students scored above 70%; midterm: 90% scored above 70; test 2: 100% scored above 70 and the final exam: 100% scored above 70 (benchmark achieved).

5. Action to be taken in addressing these assessment findings: As a result of the 2014 – 2015 assessment results which did not meet the set benchmark, additional time was allocated developing students’ ability to apply mathematics and science as professional pilots. This concentrated effort resulted in improved results for the 2015 – 2016 cycle. This practice was continued this year resulting in the benchmark being achieved in every assessment for the 2016 – 2017 cycle and should be continued going forward.

(Note: Please complete this form for each intended outcome listed on the cover sheet.)
Intended Outcome: (number \( \_2 \_ \)) Students will analyze and interpret data relating to aviation.

Means of Assessment for Intended Outcome (number \( \_2 \_ \)):

2. Means of assessment and criteria for success: This outcome is measured by mapping AABI criterion b (analyze and interpret data) within courses AVN202 and AVN 422. Instructors for these courses have developed means for assessment, and report results on an annual basis. AVN202 utilized a dedicated quiz (5) to assess this criterion, and set the benchmark of 70\% of the class achieving a score of 70\%. AVN422 utilized exam results to assess students’ ability to analyze and interpret data.

2. Description of the sample:
The entire class results will be used in each course (approximately 20 students per course).

3. Sampling procedure used to provide data for the assessment:
No sampling procedure; results from entire class population will be reported.

4. Summary of major findings for this assessment: A specific quiz (#5) was administered in AVN202 to assess students’ ability to analyze and interpret data. 85\% of the class scored a minimum grade of 70, matching the prior year’s result. In AVN422, the results for all four exams achieved the benchmark. (Detailed assessment reports are available on the Blackboard AABI repository).

5. Action to be taken in addressing these assessment findings: The instructor for AVN202 now dedicates the first two weeks of class reviewing the basic foundational knowledge needed, which has proven successful and will be continued. The instructor has also recommended that the benchmark for this course be raised to 80\% of students scoring a minimum grade of 80 on quiz 5, and will be implemented in the upcoming assessment cycle. Delivery of AVN422 has been effective in developing students’ skills and should be continued as is.

(Note: Please complete this form for each intended outcome listed on the cover sheet.)
Intended Outcome: (number 3): Students will be able to function on multi-disciplinary teams as a professional pilot.

Means of Assessment for Intended Outcome (number 3):

1. Means of assessment and criteria for success: This outcome is measured by mapping AABI criterion c (work effectively on multi-disciplinary and diverse teams) within AVN201 where students work in groups of 4 - 5 on a formal research paper which they present in class via a ppt presentation.

2. Description of the sample: The entire class results will be used in each course (approximately 20 students per course).

3. Sampling procedure used to provide data for the assessment: No sampling procedure; results from entire class population will be reported.

4. Summary of major findings for this assessment: 74% of students achieved a grade of 70 or better on their research paper and 74% scored at least 70 on their powerpoint submission and their presentation, which achieved the benchmark.

5. Action to be taken in addressing these assessment findings: This course focuses on developing teamwork skill. The assessment results indicate that this particular skill is being developed in students and that current practices should be maintained. Please see the AABI repository on Blackboard for details and sample assessments.

(Note: Please complete this form for each intended outcome listed on the cover sheet.)
Intended Outcome: (number _4_): Students will exhibit an understanding of the ethical and professional responsibilities of an aviation professional.

Means of Assessment for Intended Outcome (number _4_):

1. Means of assessment and criteria for success: This outcome is measured by mapping AABI criterion d (make professional and ethical decisions) within course AVN 201. The instructor for this course has developed a final exam with questions dedicated to ethical decision making as a means for assessment.

2. Description of the sample: The entire class results will be used for this assessment (approximately 20 students).

3. Sampling procedure used to provide data for the assessment: No sampling procedure; results from entire class population will be reported.

4. Summary of major findings for this assessment: Only 43% of students achieved a grade of 70 or better on the final examination, falling short of the 70% of students scoring a minimum grade of 70 needed to achieve the benchmark.

5. Action to be taken in addressing these assessment findings: The Aviation department added AVN201 (Safety ethics) as a required course for all professional pilot students in 2012. Assessment results for the last three cycles have yielded results indicating student weakness in this area. Students have been successful in regurgitating text book material (78% of students scored 70 or better when assessed by exam questions in 2014 – 2015 cycle). However, the instructor noted students still lacked the ability to grasp the process needed to make ethical decisions, so a more in-depth discussion assessment was established to develop this skill during the 2015 – 2016 academic year. This assessment yielded 57% of students scoring 70 or better, failing to reach the desired 70% of students scoring a minimum grade of 70. Revised questions on the final exam were used to assess this criterion for the 2016 - 2017 cycle, again with results below the set benchmark (43% of students scored the desired 70). Discussion on possible ways to develop students’ ability to make ethical decisions and to gain a better understanding of the responsibilities of an aviation professional will be solicited from faculty next fall. It is important to note that these skills are continuously being developed during students’ flight training and ground courses as well.

(Note: Please complete this form for each intended outcome listed on the cover sheet.)
Intended Outcome: (number 5): Students will acquire the ability to communicate effectively, including both written and verbal forms.

Means of Assessment for Intended Outcome (number 5):

1. Means of assessment and criteria for success: This outcome is measured by mapping AABI criterion e (communicate effectively, using both written and oral communication skills) within courses AVN201 and AVN 300W, which is a required writing-intensive course. Instructors for these courses have developed means for assessments and report results on an annual basis. Additionally, students are required to complete EGL101/102 with a grade of C or better and to complete an additional 3 credits in a Basic Communication elective, level 200 or higher.

2. Description of the sample:
The entire class results will be used in each course (approximately 20 students per course).

3. Sampling procedure used to provide data for the assessment:
No sampling procedure; results from entire class population will be reported.

4. Summary of major findings for this assessment: The benchmark of 70% of students achieving a minimum of 70% on writing assessments was met for the assessments in AVN201 (research paper / power point presentation) and for the low stakes writing assignment in AVN300W. Only 43% of students’ research papers in AVN300W scored 70 or higher.

5. Action to be taken in addressing these assessment findings: Student writing skills continue to be an area of concern for all faculty members – beyond the formal assessment process. At this year’s Advisory Board meeting, Board members again expressed how critical good communication skills are needed for employment. Faculty members have all increased their writing assignments and are offering additional support to students in this area. The instructor in AVN300W will be offering additional low stakes writing assignments utilizing the APA website and will offer a more detailed grading rubric for students. The research paper will be assigned as a group project to enable students to learn from each other.

(Note: Please complete this form for each intended outcome listed on the cover sheet.)
(Note: Restate intended outcome and indicate corresponding number)

| Intended Outcome: (number 6): | Students will recognize the need for, and an ability to engage in, life-long learning. |

Means of Assessment for Intended Outcome (number 6):

1. Means of assessment and criteria for success: This outcome is measured by mapping AABI criterion f (engage in and recognize the need for lifelong learning) within AVN201 and AVN447. Instructors for these courses have developed means for assessments. The individual course assessments are available in their entirety on Blackboard.

2. Description of the sample:
The entire class results will be used in each course (approximately 15 – 20 students per course).

3. Sampling procedure used to provide data for the assessment:
No sampling procedure; results from entire class population will be reported.

4. Summary of major findings for this assessment:
The benchmark of 70% of students achieving a minimum score of 73% was met in all assessments utilized to measure students' ability to engage and recognize the need for lifelong learning. Students in AVN201 were challenged to compose their own “mission statement” to recognize the need of having a descriptive plan to achieve their life goals and the importance of updating this "as life happens". In AVN447, on-line videos and case-studies were utilized, broadening student's ability to access updated information on a continuous basis.

5. Action to be taken in addressing these assessment findings:
Exposing students to resources available to them outside the traditional text reading assignments will continue to be infused in additional courses. Students responded positively to this means of learning new materials and have also benefitted by the increased use of classroom discussions rather than straight lectures to learn material.

(Note: Please complete this form for each intended outcome listed on the cover sheet.)
**Intended Outcome: (number 7):** Students will exhibit knowledge of contemporary issues relating to professionals in the aviation field.

**Means of Assessment for Intended Outcome (number 7):**

1. **Means of assessment and criteria for success:** This outcome is measured by mapping AABI criterion g (assess contemporary issues) within courses AVN320 and AVN 425. Instructors for these courses have developed means for assessments and report results on an annual basis.

2. **Description of the sample:**
The entire class results will be used in each course (approximately 15 – 20 students per course).

3. **Sampling procedure used to provide data for the assessment:**
No sampling procedure; results from entire class population will be reported.

4. **Summary of major findings for this assessment:** (waiting on AVN320 and AVN425 assessments)

5. **Action to be taken in addressing these assessment findings**

*(Note: Please complete this form for each intended outcome listed on the cover sheet.)*
**Intended Outcome: (number 8):** Students will demonstrate an ability to use the techniques, skills, and modern technology necessary for professional aviators.

**Means of Assessment for Intended Outcome (number 8):**

1. **Means of assessment and criteria for success:** This outcome is measured by mapping AABI criterion h (use the techniques, skills, and modern technology necessary for professional practice) within academic courses AVN322 and AVN421. Instructors for these courses have developed exam questions as means for assessment and report results on an annual basis. Additionally, the flight courses and corresponding ground school courses also serve as an assessment of these skills and student success rates in ground school courses (see outcome number 1) and flight examinations are available.

2. **Description of the sample:** The entire class results will be used in each course (approximately 20 students per course).

3. **Sampling procedure used to provide data for the assessment:** No sampling procedure; results from entire class population will be reported.

4. **Summary of major findings for this assessment:** The benchmark was achieved for all assessments conducted in AVN322 and AVN421. The detailed course assessments are available in their entirety on Blackboard.

5. **Action to be taken in addressing this assessment:** A review of the assessment results for this criterion indicate that the techniques being used in the current course delivery are effective in achieving the desired skill level and should be continued. The instructor in AVN421 noted that a "practice" quiz will be given before the major exams to identify areas that need to be reviewed, as some specific questions were not answered successfully by 70% of the students.

(Note: Please complete this form for each intended outcome listed on the cover sheet.)
Intended Outcome: Students will demonstrate the ability to analyze the national and international aviation environment.

Means of Assessment for Intended Outcome:

1. Means of assessment and criteria for success:
   This outcome is measured by mapping AABI criterion i (assess the national and international aviation environment) within AVN300W and AVN400. AVN300W embedded relevant questions in exams 1 – 4 to assess this criterion. AVN400 dedicated exam 2 as an assessment for this criterion. The individual course assessment along with student work samples for this criterion is available in its entirety on Blackboard under the community tab "Aviation Accreditation Document Repository".

2. Description of the sample:
   The entire class results will be used in each course (approximately 15 – 20 students per course).

3. Sampling procedure used to provide data for the assessment:
   No sampling procedure; results from entire class population will be reported.

4. Summary of major findings for this assessment:
   The average exam results used to assess this criterion in AVN300W met the benchmark with 88% of the students scoring 73 or better. The assessment results in AVN400 yielded 76% of students scoring above a 73 on exam 2, meeting the benchmark.

5. Action to be taken in addressing these assessment:
   Going forward, AVN300W will require written text chapter summaries as low stakes writing assignments as an attempt to achieve a higher level of understanding the national and international aviation environment. The instructor for AVN400 noted that even though the benchmark was achieved for exam 2, deeper analysis of individual questions revealed areas needing additional class time. The instructor intends to reduce class time in areas that students were able to easily grasp and devote that time to areas that students had a more difficult time understanding.

(Note: Please complete this form for each intended outcome listed on the cover sheet.)
(Note: Restate intended outcome and indicate corresponding number)

<table>
<thead>
<tr>
<th>Intended Outcome: (number <em>10</em>__):</th>
<th>Students will demonstrate the ability to apply pertinent knowledge in identifying and solving problems confronting professional pilots.</th>
</tr>
</thead>
</table>

Means of Assessment for Intended Outcome (number __10___):

1. Means of assessment and criteria for success: This outcome is measured by mapping AABI criterion j (apply pertinent knowledge in identifying and solving problems) within academic course AVN321. The instructor for this course has developed a discussion session to assess this criterion. This criterion is also emphasized in all flight training and ground courses.

2. Description of the sample: The entire class results will be used in each course (approximately 15 students).

3. Sampling procedure used to provide data for the assessment: No sampling procedure; results from entire class population will be reported.

4. Summary of major findings for this assessment: Discussion four in AVN321 was designed to measure students’ ability to identify and solve problems. 10 out of the 14 (71.4%) registered students scored a 70% or better on this discussion, meeting the set benchmark.

5. Action to be taken in addressing these assessment findings: The grade distribution for this discussion was as follows:

   94 – 100: 2  
   90 – 93: 1  
   80 – 89: 0  
   70 – 79: 7  
   60 – 69: 1  
   >60 :3      (Discussion four total: 10 over 70%, 71.43%)

   This skill is of utmost importance for all professional pilot students to have fully developed. Critical thinking and problem-solving skills will continue to be emphasized in all course work, as the grade distribution reveals that 11 out of 14 students scored 79 or below. Additional assessments will be used next cycle to ensure student competency is being met in this area.

(Note: Please complete this form for each intended outcome listed on the cover sheet.)
Concluding Statement:
What have you learned from this year’s assessment process that could be helpful in the future?

This year marks the third year of the Aviation department's formalized assessment process, which is continuously evolving. Last year’s assessment results proved to be exciting when the recommendations rising from the first assessment cycle were implemented and assessed, most often leading to improved results. Once again recommendations and suggestions from 2015 – 2016 were implemented this year, but often led to flat results for the criteria being assessed. Faculty met on June 8, 2017 to discuss the assessment results, with some interesting revelations:

- The difficulty of comparing assessment results when a course is taught by a different instructor was discussed last year. This year, it was noted that several courses taught by the same instructors opted to assess the criterion by utilizing a different approach. It was generally agreed that the assessment results were directly dependent upon the assessment tool used and that direct comparison of assessment results should not be made. It was agreed that the value of the assessments lie in identifying general areas of student weaknesses that should be addressed.

- The importance of reviewing the last course assessment prior to the start of a new semester was emphasized. It was agreed that the course assessment form stating the assessment tool that will be used should be submitted to Blackboard during the first week of each semester. It is hoped that this will have faculty review the prior assessment so that a plan to address cited weaknesses will be incorporated into the current semester.

- Time needs to be set aside to review the assessment process for all adjuncts teaching courses with assessments due.

- Review of the course assessments revealed that some faculty were reporting percentages of students scoring above 70, and other faculty were reporting percentages of students above 73. Faculty had agreed to report using 73 as a benchmark which is consistent with the minimum passing grade of C for all aviation courses.

- Additional modifications in specific course assessments will be made as outlined in this report (ie AVN202 will now set the benchmark at 80% of the students achieving a minimum score of 80).

- Faculty discussed the lack of proficient communication skills, especially writing skills, present in a large percentage of the student body. A CCP was submitted to have AVN201 offered as a writing-intensive course in future semesters. Faculty agreed to continue dedicating time and effort to improving students’ writing skills.
Faculty expressed appreciation for the value of the assessment process and stated the group discussion on the assessment results provided the opportunity for faculty to learn from each other.