Annual Assessment Report

Assessment Cycle: 2015-2016

Academic Unit: Applied Sciences and Arts
Department/Division: Aviation Management and Flight

Academic Degree Program/ Degree Level: Aviation Flight/Associate of Applied Science

Unit Dean: Dr. Ju An Wang
Email: awang@siu.edu

Department Chairperson: Michael Burgener
Email: burgener@siu.edu

Assessment Coordinator(s): John K. Voges
Lorelei Ruiz (lemiller@siu.edu)
Bryan Harrison (bryanth@siu.edu)
Email: jvoges@siu.edu
Phone: 453-9244
Date Submitted: November 2016

Assessment Plan Verification

Programs are only required to submit an Assessment Plan every four (4) years. However, programs must submit annual Assessment Reports based on the approved Assessment Plan. Programs should review their existing Assessment Plan with the program faculty as part of the review process to determine whether revisions are required based on the findings.

I acknowledge that the program faculty have met and reviewed our existing assessment plan:

☐ No changes are required

☐ Changes are required

If changes are required, please submit a revised Assessment Plan Template instead of completing this form.

Findings

Analyze the findings for the stated Student Learning Outcomes (SLO) listed on the approved Assessment Plan. Come to a clear understanding and agreement on areas that still present opportunities for academic degree program growth and improvement. This section should include, but not necessarily be limited to:

Findings for several years explained, patterns and trends identified. How does the current year data correlate with previous years?

Description of implications of the findings (i.e., how did you determine whether students exceeded, met or did not meet the expectations described in the approved Assessment Plan. Have students met the stated student learning outcomes?, etc.).

What program changes could you make to improve student knowledge and skills that did not reach criterion success levels?

What can you infer from the data?

*Document the findings of assessment. Summarize the results for reporting purposes; be sure to retain detailed documentation on file for reference purposes if needed (accreditation, program evaluation, etc.).

Attached to this document is the Assessment Trends document for the Aviation Flight program and the associated AY15-16 Assessment Matrix. This report is based on the revised Assessment Plan submitted in December 2014. As such, any trend information is limited. Previously, the Flight program assessed four Student Learning Outcomes. However, based on input from our accreditors and the Office of Assessment and Program Review, we have expanded to seven Student Learning Outcomes.

In spite of these changes, this year’s assessment utilizes many of the same assessment measures used previously. We had hoped to have the AF300B stage knowledge test numbers available for SLO 1; however, a review of the stage knowledge tests has revealed that the test has not been reconfigured as planned, so the desired data is still not available. We are discussing plans for correcting this.

SLO1: Students will be able to apply relevant aeronautical knowledge and skills in planning and conducting safe flights as an instrument-rated Commercial Pilot.

We are currently using a total of 14 measures to gauge this SLO. In 11 out of the 14 measures, the expectation for satisfactory performance was met or exceeded. The three unsatisfactory measures included the AF205 project, the AF300B stage knowledge test, and the 207A grad stage knowledge test. For the AF205 project, the instructor plans to change the assignment slightly and spend more time on certain topics in class. While still not at the level we want, there was marked improvement on the AF300B stage knowledge test over last year’s performance. The drop in performance on the 207A stage knowledge test (from 82% to 75%) was
disappointing, and we will be reviewing questions on that test. As always, we will continue to ask instructors to stress to their students the importance of taking the computer-administered stage knowledge tests seriously the FIRST time they take them.

**SLO2: Students will demonstrate the ability to communicate clearly.**

We are currently using a total of 2 measures to gauge this SLO. In both of these measures, the expectation for satisfactory performance was met or exceeded. One measure is based on oral communication and one is based on written communication.

**SLO3: Students will demonstrate the ability to exercise effective aeronautical decision making while planning and conducting single pilot flight operations.**

We are currently using a total of 3 measures to gauge this SLO. In all 3 measures, the expectation for satisfactory performance was met or exceeded.

The 207B stage knowledge test, which missed the expectation for satisfactory performance by 2 percentage points last year, exceeded the expectation by 6% this year.

Additionally, the AF300B stage knowledge test has not yet been reconfigured to allow adequate assessment of this SLO. We are in the process of making modifications to address this.

**SLO4: Students will demonstrate the ability to engage in team-based work activities involving multi-disciplinary and diverse groups.**

We are currently using one measure to gauge this SLO. The Case Analysis group project in AF211/311 evaluates each team’s performance, including a peer evaluation and an instructor evaluation. The expectation for satisfactory performance was exceeded for this SLO.

**SLO5: Students will demonstrate the ability to apply knowledge of contemporary aviation issues to professional practice.**

We are currently using a total of 3 measures to gauge this SLO. In all three of the measures, the expectation for satisfactory performance was met or exceeded.

**SLO6: Students will recognize the need for and engage in life-long learning.**

We are currently using one measure to gauge this SLO. The expectation for satisfactory performance was exceeded for this SLO.

**SLO7: Students will possess either the Multi-Engine rating or the Flight Instructor Certificate.**

We are currently using a total of 10 measures to gauge this SLO. In 6 out of the 10 measures, the expectation for satisfactory performance was met or exceeded. We were happy to see that performance on the AF300B test exceeded the minimum expectation this year at 87%, up from 78% last year. The four unsatisfactory measures are as follows:

- Performance on the AF300A Stage Knowledge Test continues to miss the mark, with only 66% of students passing on the first attempt.

- While still shy of the minimum expectation for the AF207B Stage Knowledge Tests, more students (78% for S&L, up from 59%, and 63% for WB&P, up from 47%) passed the tests on the first attempt.

- This year, the overall performance on the FAA’s Fundamentals of Instruction test dropped, from 85% to 74%.

For the stage knowledge tests, we will continue to review these tests to ensure that the questions reflect the most up-to-date material, regulations, etc. and stress to students and instructors the importance of doing well on these tests the FIRST time they take them.
### Action Plan/Assessment Infrastructure

**Strategies for using results for program improvement development, methods for reporting results, timeline and identify individuals responsible for assessment activities. Please note:** This section should include, but not necessarily be limited to the following:

<table>
<thead>
<tr>
<th>Part 1: Describe the strategies used for program improvement development, methods for reporting results, timeline and individuals responsible for assessment activities. Provide details on how and by whom the data were analyzed, along with the criteria used to determine whether students are achieving all the expected SLOs. Provide a description of how the data has been retained to allow for comparison of results based on several years, with patterns and trends identified.</th>
</tr>
</thead>
</table>

Currently, Professor Lorelei Ruiz is responsible for collecting, compiling, and analyzing annual assessment data. This data is collected from various AF ground school instructors, the FAA Knowledge Test log, the Talon record keeping system, and the SIUOnline Learning Management System. For the purposes of this report, data collection began in mid-May for the previous Summer, Fall and Spring semesters.

Expectations for satisfactory performance on each individual measure were determined either by individual course instructors or by a panel of senior instructors within the program. Generally speaking, each measure requires that either 70% or 80% of students achieve a defined minimum score in order to meet or exceed the expectation of performance. The data showing that these measures are or are not met are logged on the Assessment Matrix.

Hard and electronic copies of the annual Assessment Matrices are retained within the department. Professor Ruiz is assisted by instructor Ken Bro in this effort. Additionally, an Assessment Trends document is used to illustrate annual changes in performance levels going forward from AY11-12.

<table>
<thead>
<tr>
<th>Part 2: Explain how program faculty members were involved in the assessment process. (Describe the process that was implemented to ensure that faculty were involved in the assessment process, i.e., faculty committee actively communicated with program faculty, administrative support present, worked with department curriculum committee, findings discussed among faculty, pedagogy reviewed and revised based on assessment data, changes made if warranted for program improvement, etc.).</th>
</tr>
</thead>
</table>

Various faculty members are responsible for collecting and providing data from class projects, assignments, and tests for the annual assessment report. Additionally, faculty members are periodically updated on changes to specific assessment measures (e.g. changes to the AF207B and AF300 stage knowledge tests.) A session during the Spring and Fall semester Aviation Flight In-Service Training week is in part set aside for a review of the assessment report for discussion and instructor input/feedback. Also during In-Service Training, we conduct an assessment session that is required for all ground school course instructors.

<table>
<thead>
<tr>
<th>Part 3: Reviewing student learning outcome data and making adjustments to the academic program. (What future actions should your program take? How can you assist students develop the learning outcomes you wish them to achieve?)</th>
</tr>
</thead>
</table>

One of the issues we continue to address is the Stage Knowledge Tests. Students are allowed to take the stage knowledge test four times before it counts as a failed check ride. In too many instances, the students take the test to “see what’s on it” and don’t put in the time and effort to do well the first time. This affects the assessment numbers. The program needs to continue to stress to instructors the importance of not sending students to take these tests until they are confident they will pass the first time.

We are also in the process of modifying some of the stage knowledge tests and course assignments to better address the student learning outcomes, some of which will be changing with next year’s assessment. We are in discussions to reconfigure the AF300 tests to ‘force’ the students to perform the calculation and application questions, instead of just guessing while under the assumption that they could miss those and still receive a passing grade. We are considering something similar to what we did with the AF207B tests a couple of years ago, i.e. splitting the tests.

<table>
<thead>
<tr>
<th>Part 4: Reviewing and making adjustments to the academic assessment plan. (Are changes necessary in your objectives? Are your assessment methods providing you the quality and quantity of information you need?)</th>
</tr>
</thead>
</table>

We continue to review certain assignment grading rubrics so that students have better guidance on expectations, instructors have better guidance during evaluation, and data being used for assessment purposes is better targeted. We are also in the process of revising our curriculum map due to changes in certain courses. This will affect certain measures used for assessing the SLOs.

The Fall 2015 Aviation Flight In-Service Training schedule included a meeting of the AF Program Assessment Committee to review
the AY14-15 Assessment Report. All ground school instructors are familiar with the assessment process at this point, so further meetings were not conducted.

*The quality enhancement process is continuous and includes completion of annual assessment cycles that use the results to make improvements to your academic program. Improvements might include revising organizational structure, reallocating resources, revising administrative policies/procedures, revising curriculum, individual course revision, sequencing of courses, inclusion and/or modification of educational experiences and strategies (e.g., undergraduate research, internships, practicum, study abroad, service learning).

**Glossary of Terms**

**Achievement Target/Success Criteria:** overall level for satisfactory performance on a student learning outcome

**Action Plan/Assessment Infrastructure:** activity sequence designed to help accomplish intended outcomes/student learning outcomes and/or improvement of academic assessment plan

**Direct/Indirect Assessment:** Direct assessment requires students to display their knowledge and skills in response to the measurement instrument itself, as in tests, or exams, essays, portfolios, presentations, etc. Indirect assessment usually asks students to reflect on their learning rather than demonstrate it. Indirect may also ask employers or other interested parties to evaluate student learning as they have had occasion to observe it.

**Findings:** assessment results for comparison of actual vs. expected achievement level

**Program Goal:** broad statement about desired ends

**Measure:** method to gauge achievement of expected results

**Mission:** highest aims, intentions, and activities of the entity

**Student Learning Outcome:** measurable statement that describes the knowledge, skill or ability students will possess upon achievement of that outcome as it relates to the mission

**Original borrowed from:**

**Developed utilizing & modifying the following documents:**
Southern Illinois University - [http://pvcaa.siu.edu/forms.html](http://pvcaa.siu.edu/forms.html)
Western Association of Schools & Colleges - [http://www.wascsenior.org/findit/files/forms/Program_Learning_Outcomes_Rubric_4_08.pdf](http://www.wascsenior.org/findit/files/forms/Program_Learning_Outcomes_Rubric_4_08.pdf)