Assessment Plan Template

<table>
<thead>
<tr>
<th>Academic Unit:</th>
<th>Applied Sciences and Arts</th>
<th>Department/Division:</th>
<th>Aviation Management and Flight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Degree Program/Degree Level:</strong></td>
<td>Aviation Flight/Associate Degree</td>
<td><strong>Unit Dean:</strong></td>
<td>Dr. Ju An Wang</td>
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<td>453-9244</td>
</tr>
<tr>
<td><strong>Date Submitted:</strong></td>
<td>Click here to enter a date.</td>
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</tbody>
</table>

**Mission (Mission of the Academic Degree Program)**

Briefly describe how this program will support the University’s mission, focus, and/or current priorities. Explain how the program is consistent with or perhaps even central to that mission.

In keeping with the mission of the University, the Aviation Flight program enables students to reach their full potential through high quality, structured flight and ground instruction. Professional development opportunities for our students are available through the Aviation Emphasis Floor in University Housing, membership in various student groups, and student representation at national conventions and conferences. To further encourage the participation of non-traditional groups, the program makes a concerted effort to maintain a presence at national venues including the annual conferences of the Organization of Black Aviation Professionals (OBAP) and Women in Aviation, International (WAI). The program serves the needs of local organizations through outreach activities conducted by the Aviation Ambassadors group, the Let’s Wing It! Program, and our participation in other local and regional outreach events sponsored by other departments/organizations.

**Program Goals**

A goal is a general statement about the aims or purposes of the educational experience in the academic degree program. Goals are long range outcomes that are written in broad language. They describe what graduates of the program are expected to know and be able to do (skills, knowledge, and behaviors that students acquire in their matriculation through the program). Please note: If your program has more than three goals, please insert additional lines or list on a separate page.

**Goal:** Produce graduates who are prepared to pursue entry-level pilot positions within the aviation industry and/or further education at the bachelor degree level.

**Program Student Learning Outcomes/Objectives (SLOs)**

An objective is a specific statement that describes a desired learning outcome for the academic degree program. (At least 3-5 student learning outcomes should be identified for each academic degree program. Learning outcomes should be specific, measurable, ambitious, realistic, and time bound. Each student learning outcome will be associated with a goal listed above.) Please note: If your program has more than five outcomes/objectives, please insert additional lines or list on a separate page.

- **SLO1** Students will be able to apply relevant aeronautical knowledge and skills in conducting safe flights as a professional pilot.
- **SLO2** Students will demonstrate the ability to communicate clearly and exercise effective aeronautical decision making while conducting single pilot and crew flight operations.
- **SLO3** Students will demonstrate the ability to apply knowledge of contemporary aviation issues to professional practice and recognize the need for life-long learning.
- **SLO4** Student will possess the skills and knowledge required to obtain the Commercial Pilot Certificate with Instrument and Multi-Engine ratings.

**Curriculum Map/Curriculum Alignment Matrix**

Please attach a copy of the curriculum map/curriculum alignment matrix or a description of the method used to link the program goals to the program student learning outcomes/objectives then to the course objectives.

See attached Outcomes Map.

**Methods/Measures/Achievement Targets/Performance Expectations**

Identify and describe appropriate assessment instruments or methods for each student learning outcome and establish a criteria level for learning success (achievement target/success criteria). (Multiple measures including direct/indirect, formative/summative are desirable for each student learning outcome. Data collection should be systematic (that is, occur at different points throughout the program). Explain the criteria/standard used to measure exceeds, met, and does not meet expectations. Collect sources of evidence that will convince you and others that your students are reaching the desired learning objectives.)

See attached Assessment Matrix.

SIU Assessment Plan Template – August 2012
Action Plan/Assessment Infrastructure

Strategies for using results for program improvement development, methods for reporting results, timeline and responsibility for assessment activities. Provide details on how and by whom the data will be analyzed, along with the criteria used to determine whether students are achieving all the expected SLOs. Provide a description of how the data will be retained to allow for comparison of results based on several years, with patterns and trends identified. Explain the process that will be implemented to ensure that program faculty are involved in the assessment process. (Faculty committee actively communicates with program faculty, administrative support present, works with department curriculum committee, findings discussed among faculty, pedagogy reviewed and revised based on assessment data, changes made if warranted for program improvement, etc.).

*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://www.siu.edu/forms.html
Virginia Commonwealth University - http://www.provost.vcu.edu/pdfs/uucc/Assessment_Plan_Development_Kit.docx - 2011-09-22
Western Association of Schools & Colleges - http://www.wascsenior.org/findit/files/forms/Program_Learning_Outcomes_Rubric_4_08.pdf
## Mapping SIU Program Outcomes to AABI Outcomes and SIU AF Courses

**Program Goal:** Produce graduates who are prepared to pursue entry-level pilot positions within the aviation industry and/or further education at the bachelor degree level.

The Program outcomes detailed below are designed to lead to achievement of the program goal. Each Program Outcome is linked to one or more AABI-specific outcomes, and further linked to specific AF courses which cover each outcome. Evidence collected in select courses is used for program assessment purposes.

<table>
<thead>
<tr>
<th>SIUC AF Program Outcome</th>
<th>AABI Outcome</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will be able to apply relevant aeronautical knowledge and skills in conducting safe flights as a professional pilot.</td>
<td>A. Apply mathematics to aviation-related disciplines</td>
<td>AF 201A, AF 201B, AF 203, AF 204, AF 206, AF 207A, AF 207B</td>
</tr>
<tr>
<td></td>
<td>B. Identify, formulate, and solve applied aviation problems</td>
<td>AF 201A, AF 201B, AF 203, AF 204, AF 206, AF 207A, AF 207B, AF 300</td>
</tr>
<tr>
<td></td>
<td>H. Use the techniques, skills, and modern tools in aviation for professional practice</td>
<td>AF 201A, AF 201B, AF 203, AF 204, AF 206, AF 207A, AF 207B, AF 300</td>
</tr>
<tr>
<td>Students will demonstrate the ability to communicate clearly and exercise effective aeronautical decision making while conducting single pilot and crew flight operations.</td>
<td>C. Work effectively on multi-disciplinary and diverse teams</td>
<td>UCOL 101, AF210</td>
</tr>
<tr>
<td></td>
<td>D. Make professional and ethical decisions</td>
<td>AF 201A, AF 201B, AF 203, AF 204, AF 206, AF 207A, AF 207B, AF 300</td>
</tr>
<tr>
<td></td>
<td>E. Communicate effectively, using both written and oral communication skills</td>
<td>AF 201A, AF 201B, AF 203, AF 204, AF 206, AF 207A, AF 207B, AF 300</td>
</tr>
<tr>
<td>Students will demonstrate the ability to apply knowledge of contemporary aviation issues to professional practice and recognize the need for life-long learning.</td>
<td>F. Recognize the need for, and engage in, lifelong learning</td>
<td>AF 200, AF 201A, AF 202, AF 205, AF 206, AF 207A, AF 207B</td>
</tr>
<tr>
<td></td>
<td>G. Assess contemporary issues</td>
<td>AF 202, AF 210</td>
</tr>
<tr>
<td>Students will possess the skills and knowledge required to obtain the Commercial Pilot Certificate with Instrument and Multi-Engine ratings.</td>
<td>AABI 4.5.2</td>
<td>AF 206, AF 207A, AF 207B</td>
</tr>
</tbody>
</table>
Mapping SIU AF Program Outcomes to Course Objectives

**Program Goal:** Produce graduates who are prepared to pursue entry-level pilot positions within the aviation industry and/or further education at the bachelor degree level.

The Program outcomes detailed below are designed to lead to achievement of the program goal. Each Program Outcome is linked to one or more courses, and further linked to specific AF course objectives.

<table>
<thead>
<tr>
<th>SIUC AF Program Outcome</th>
<th>Course</th>
<th>Course Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO1: Students will be able to apply relevant aeronautical knowledge and skills in conducting safe flights as a professional pilot.</td>
<td>AF 205</td>
<td>An academic course directed to the theory of flight by instruments, including classroom instruction in the applicable sections of the Federal Aviation Regulations, navigation by radio aids, aviation weather, and the function, use and limitations of instruments required for instrument flight. This course will also prepare the student for the Federal Aviation Administration's Instrument Rating - Airplane Knowledge Test.</td>
</tr>
<tr>
<td></td>
<td>AF 206</td>
<td>The student will obtain the aeronautical skill and experience necessary to meet the requirements for an Instrument Pilot rating with an airplane category rating and single engine land class rating.</td>
</tr>
<tr>
<td></td>
<td>AF 207A</td>
<td>The student will obtain the aeronautical skill and experience necessary to meet the requirements for a Commercial Pilot Certificate with an airplane category rating and single engine land class rating. The student will gain operational experience with the Garmin G1000 system and meet the 10 hour instrument training requirement (2.0 TruFlite FTD, 8.0 Airplane) for Commercial Pilot Certification per 14 CFR 141 Appendix D.</td>
</tr>
<tr>
<td></td>
<td>AF 207B</td>
<td>The student will obtain the aeronautical skill and experience necessary to meet the requirements for a Commercial Pilot Certificate with an airplane category rating and multi engine land class rating.</td>
</tr>
<tr>
<td>SLO2: Students will demonstrate the ability to communicate clearly and exercise effective aeronautical decision making while conducting single pilot and crew flight operations.</td>
<td>UCOL 101</td>
<td>Students will begin to develop a broad, comprehensive perspective on higher education. Students will contribute to and help maintain a safe, supportive, and positive learning experience for themselves and their academic peers. Students will understand and begin to practice basic communication skills appropriate to the University setting. Students will begin the process of understanding critical thinking in the university context. Students will understand and apply information technology in support of their academic work.</td>
</tr>
</tbody>
</table>
| SLO2, cont’d. | Students should **begin to develop knowledge of their own abilities, skills, and life demands so that they can develop these more effectively in pursuit of their academic goals.**

Students should begin to develop an understanding of career opportunities available to them and the professional responsibility associated with that career.

Students will become information literate, using critical thinking, and problem solving skills to build an intellectual framework for discovering, using, and evaluating information.

Students will demonstrate an understanding of the history, structure, evolution, and future of the US aviation industry and its role in the global economy. |
| AF 205 | An academic course directed to the theory of flight by instruments, including classroom instruction in the applicable sections of the Federal Aviation Regulations, navigation by radio aides, aviation weather, and the function, use and limitations of instruments required for instrument flight. This course will also prepare the student for the Federal Aviation Administration’s Instrument Rating – Airplane Knowledge Test. |
| AF 207B | The student **will obtain the aeronautical skill and experience necessary to meet the requirements for a Commercial Pilot Certificate with an airplane category rating and multi engine land class rating.** |
| AF 210 | To make the student aware of the importance and effects of the physiological processes that occur in aviation.  

*To enhance the student’s aeronautical decision making skills and to aid students in identifying their own strengths and weaknesses* in an effort to improve the ‘human side’ of their flying.  

To expose the student to the concepts of command roles, leadership roles, and management of resources as they relate to Crew Resource Management.  

To **develop the student’s awareness of the importance of proper communication and standard phraseology.** |
| SLO3: Students will demonstrate the ability to apply knowledge of contemporary aviation issues to professional practice and recognize the need for life-long learning. | UCOL 101 | Students will begin to develop a broad, comprehensive perspective on higher education.  

Students will contribute to and help maintain a safe, supportive, and positive learning experience for themselves and their academic peers.  

Students will understand and begin to practice basic communication skills appropriate to the University setting.  

Students will begin the process of understanding critical thinking in the university context. |
SLO3, cont’d.

**Students will understand and apply information technology in support of their academic work.**

Students should begin to develop knowledge of their own abilities, skills, and life demands so that they can develop these more effectively in pursuit of their academic goals.

Students should begin to develop an understanding of career opportunities available to them and the professional responsibility associated with that career.

Students will become information literate, using critical thinking, and problem solving skills to build an intellectual framework for discovering, using, and evaluating information.

Students will **demonstrate an understanding of the history, structure, evolution, and future of the US aviation industry and its role in the global economy.**

| AF 210 | To make the student aware of the importance and effects of the physiological processes that occur in aviation. To enhance the student’s aeronautical decision making skills and to aid students in identifying their own strengths and weaknesses in an effort to improve the ‘human side’ of their flying. To expose the student to the concepts of command roles, leadership roles, and management of resources as they relate to Crew Resource Management. To develop the student’s awareness of the importance of proper communication and standard phraseology. |

**SLO4: Students will possess the skills and knowledge required to obtain the Commercial Pilot Certificate with Instrument and Multi-Engine ratings.**

| AF 206 | The student will **obtain the aeronautical skill and experience necessary to meet the requirements for an Instrument Pilot rating with an airplane category rating and single engine land class rating.** |
| AF 207A | The student will **obtain the aeronautical skill and experience necessary to meet the requirements for a Commercial Pilot Certificate with an airplane category rating and single engine land class rating.** The student will gain operational experience with the Garmin G1000 system and meet the 10 hour instrument training requirement (2.0 TruFlite FTD, 8.0 Airplane) for Commercial Pilot Certification per 14 CFR 141 Appendix D. |
| AF 207B | The student will **obtain the aeronautical skill and experience necessary to meet the requirements for a Commercial Pilot Certificate with an airplane category rating and multi engine land class rating.** |
Assessment Action Plan for the

Aviation Flight Program

Southern Illinois University Carbondale

AY 2011-12

Strategies for using results for program improvement development:

Assessment results will be initially shared with the Chief Flight Instructor and Department Chair, then all Senior Faculty members for consideration and discussion.

Timeline and responsibility for assessment activities:

Every year, beginning in late August, data from the preceding academic year will be collected for inclusion in the Assessment Matrix. This data will be collected no later than September 30 for inclusion in the Assessment Matrix and subsequent analysis. The Assessment Coordinator will be responsible for collecting and compiling the data, and subsequently communicating results to the Chief Flight Instructor and Department Chair.

Provide details on how and by whom the data will be analyzed, along with the criteria used to determine whether students are achieving all the expected SLOs.

Data available through the SIUOnline system and the TALON record keeping system will be accessed directly by the Assessment Coordinator. FAA Knowledge Test result data will be forwarded to the Assessment Coordinator by the Testing Coordinators for entry and analysis. Ground school instructors will provide data from select assignments for inclusion on the Assessment Matrix. Criteria for each SLO are provided in the Assessment Matrix.

Methods for reporting results:

Results of the assessment will be submitted to the SIU Office of Assessment and Program Review every December. The results will additionally be shared with the program faculty during the Spring semester In-service training held in January, as well as with the Advisory Committee at their annual meeting in the Fall. Finally, the stored assessment data will be reported to the appropriate accrediting body as required.
Provide a description of how the data will be retained to allow for comparison of results based on several years, with patterns and trends identified.

Data will be retained in both electronic and hard copy format for comparison purposes and appropriate reporting during accreditation. Based on current accreditation schedules, five years’ worth of assessment data will be stored at any given time.

Explain the process that will be implemented to ensure that program faculty are involved in the assessment process.

Assessment findings will initially be shared with the Senior Faculty, the Curriculum Committee, and ground school instructors. Recommendations from these groups will be shared with the Chief Flight Instructor and the Department Chair for assimilation into the present curriculum. Proposed FAA Part 141 curriculum changes in turn will be submitted for FAA approval in accordance with FAR Part 141 and compliance with FAA Practical Test Standards.

The entire faculty will be updated on the assessment results during the Spring semester In-Service training sessions. The update will include assessment data, curricular changes, and related departmental policy changes.