

**Aeronautical Technology
Assessment of Student Learning Report
2012**

A. Program Information

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Program: Aeronautical Technology
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B. Outcome Reporting

Student Learning Outcome

1. Demonstrate the ability to work on diverse multi-disciplinary teams.
2. Demonstrate a global perspective on sustainable aviation business practices.
3. Choose ethical courses of action within the operational environment.
4. Demonstrate a lifelong commitment to personal excellence through service and continuing education.
5. Appraise unsafe operational conditions within the aviation environment.
6. Evaluate the effectiveness of oral and written communication skills.
7. *Creatively solve technical problems related to the aviation workplace using math and science.
(*This SLO is degree option and/or certificate specific; assessment of this SLO is outlined in the abbreviated assessment plan for each option/certificate available at the department level; the abbreviated plan is only for this SLO)

Assessment Method(s)

Direct Measures

SLO 1 is assessed by a team work project in BUS 315 that is scored with a rubric.

Team Work

Students	Years	70/100 acceptable	80/100 Proficient	90/100 exemplary
34	2011-2012	6	12	7

A total of 9 students did not achieve an acceptable score on this assignment.

SLO 6 is assessed by a written assignment in ENGL 302 that is scored with a rubric.

Written Communication

Students	Years	70/100 acceptable	80/100 Proficient	90/100 exemplary
35	2011-2012	2	8	17

A total of 8 students did not achieve an acceptable score on this assignment.

SLO 7 Unmanned Aerial Systems

Eight out of ten students completing AVT 497 (senior project - UAS) will successfully perform an autopilot integration on a small unmanned aircraft. Out of the eight auto pilot integrations, six students will successfully install and operate a payload system. This is the first year for this program.

Students	Years	Autopilot integration acceptable	Operate payload system exemplary
1	2011-2012	1	0

SLO 7 Professional pilot

Eight out of ten students completing AVT 242 Aviation Meteorology will successfully pass an oral examination on Direct User Access Terminal (DUAT) service for pilots.

Meteorology

Students	Years	80/100 acceptable	85/100 Proficient	90/100 exemplary
37	2011-2012	1	9	24

Three students were unacceptable on this assignment.

Indirect Measures

SLO 1 is measured by the senior survey. Our goal is that 8 out of 10 students will rate their progress on their ability to work as a member of a team as some or very much.

Team Work

Students	Years	None	Very Little	Some	Very much
16	2011-2012	3	1	6	6

SLO 6 is measured by two items on the senior exit survey. Our goals is that 9 out of 10 students will rate their improvement in oral and written communications as some or very much.

Oral Communication

Students	Years	None	Very Little	Some	Very much
16	2011-2012	2	1	4	9

Written Communication

Students	Years	None	Very Little	Some	Very much

16	2011-2012	2		4	10
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Results

A number of the changes we have made to our programs come from outside the narrow scope of our academic assessment but from a wider assessment driven by our accrediting agency and other outside influences. This year we contracted our helicopter training due to the success of our program. Our two faculty professors with their classroom responsibilities and one aircraft could not meet the needs our students. We now have three aircraft and three full time helicopter instructors. We upgraded our CRJ200 Flight Training Device to a CRJ700. This initiative actually came from our manufacturer. They wanted to reduce the number of types of simulators they had to support so they made it financially attractive to upgrade our device to a new configuration which will be of benefit to our students. Many of our new helicopter students have no desire to learn to fly airplanes and then transition to helicopters. We have submitted a curriculum change to add an option to our current degree that will allow helicopter students to obtain a degree with only helicopter ratings. We are advertising our programs by using instructors and students to place brochures in fixed base operators around the state as they perform the crosscountry flights required by the syllabus. This initiative came from one of our advisory council members. This is the first time that we have tried to quantify teamwork as a student learning outcome. While the results were not as good as we had hoped, we will gather data for another year to establish a baseline.

These are indirect results from the senior survey. This was the first time that we have been able to get results at the department level. It was encouraging the number of students who felt they were making some or very much progress in oral and written communications. Our results were not as good with our teamwork SLO. In the maintenance program, many of the projects they work on in the labs are as part of a team. In the professional pilot program, most of the aircraft instruction is individual instruction. We have had a crew resource management class in which teamwork is a major component. Last year we changed the curriculum to include CRM1 and CRM2. The CRM2 class is one of our culminating aviation experience classes. We hope this will improve the student perception in this area. We have also asked that several questions be added to the senior survey so that we can get student input on several other areas of interest to our accrediting body. We also have asked for statistics by option so that we can see if those indicating little or no progress are from a particular option.