Flight Dispatch Outcomes 2015-2016
Department: BS Aerospace - Flight Dispatch Concentration

Outcomes

1. **Students will obtain the FAA Aircraft Dispatch certification.**
   **Start:** 7/1/2015
   **End:** 6/30/2016
   **Providing Department:** BS Aerospace - Flight Dispatch Concentration
   **Person(s) Responsible:** Andrea Georgiou, Flight Dispatch Coordinator
   **Outcome Type:** Program Outcome

   **Measure 1**
   Percentage of students who successfully complete the FAA Aircraft Dispatch Oral and Practical examination. Goal: 80% pass rate on the first attempt.

   **What changes have you made based on prior results of measure 1**
   Based on the future program changes listed from the 2014-2015 year, I conducted the mock oral dispatch exam three weeks earlier. This was helpful for the students in two ways: 1). It gave more time for students that were not successful with the first mock examination to study and retest and 2). Resulted in better preparation for their final exam.

   **Future actions based on results from measure 1**
   Program changes: If it is possible from a logistic standpoint, I would like to integrate one day in the NASA FOCUS lab to utilize the Fusion weather product into the student's flight planning.

   While flight planning is a fairly objective process, I would like to develop an improved grading rubric for the course. Additionally, I may include a student assignment for mock testing for the dispatch oral and practical. Students would be placed in teams of two and they would conduct a mock oral exam and grade each other.

2. **Students will produce work products that demonstrate applied knowledge of core concepts and principles of aerospace technology.**
   **Start:** 7/1/2015
   **End:** 6/30/2016
   **Providing Department:** BS Aerospace - Flight Dispatch Concentration
   **Person(s) Responsible:** Paul Craig and Gerald Hill AERO 4040 Professors, Andrea Georgiou Flight Dispatch Coordinator
   **Outcome Type:** Program Outcome

   **Measure 1**
   Successful completion of AERO 4040 Aerospace Seminar, FOCUS (Flight Operations Center-Unified Simulation) lab simulation training.

   **What changes have you made based on prior results of measure 1**
   Based on the 2015 future program and assessment changes, the following changes were
implemented in the NASA FOCUS lab:
1). The NASA FOCUS lab administrator, Evan Lester, completed his honor's undergraduate thesis which provides the lab with an instruction manual on how the various positions play a role in the lab. Additionally, his thesis provides detailed instructions for turning on the lab, troubleshooting various technical issues that arise, and procedures to complete before, during, and after the simulation. As Mr. Lester graduated in Spring 2016, his thesis was critical in ensuring the continued success of the lab.
2). We have continued to standardize and revise the simulation triggers based on feedback from industry leaders, our SME's, and student feedback.
3). From a graduate-level I/O psychology project, some of the measures utilized in lab to rate individual and team performance were revised to ensure validity and reliability.

Future actions based on results from measure 1
With the acquisition of the WSI Fusion industry software, the FOCUS lab will integrate this software into a few positions in the lab.

There is still a need for more Aerospace faculty in the NASA FOCUS lab, specifically a faculty member or researcher is needed for the aircraft maintenance training and simulation positions.

3. Students will obtain the knowledge, skills, and abilities (KSAs) needed for the dispatch profession.
   Start: 7/1/2015
   End: 6/30/2016
   Providing Department: BS Aerospace - Flight Dispatch Concentration
   Person(s) Responsible: Andrea Georgiou, Flight Dispatch Coordinator
   Outcome Type: Program Outcome

Measure 1
Demonstration of proficiency with flight planning and comprehensive final examination.

What changes have you made based on prior results of measure 1
Based on the 2015 changes listed to improve student learning, I spent more time explaining the required components of the dispatch release and provided examples of an industry dispatch release. Additionally, students were required to know the items required to be included on a dispatch release at the beginning of the semester. Taking into account the weakness in performance from 2015, the students were provided more examples for takeoff, en route, and landing performance calculations. A new change was I began teaching these topics a semester early, which gave the students ample time to practice and gain an in-depth knowledge of factors that play a role in aircraft performance.

Future actions based on results from measure 1
After the FAA Dispatch Oral and Practical exams, the FAA examiners said the students were very well prepared for their exam and demonstrated an impressive understanding of the dispatch profession. The examiners noted this was the best year of testing they have seen to date. As such, there will not be any major program changes and instead I will continue to integrate scenario-based training, ample flight planning exercises, and mock exams.
Based on the weaknesses noted in completing the flight plan in the required 3 hour limit, more homework in flight planning will be assigned and one exam will be administered that does not allow the use of their flight planning steps. This may help them in relying less on the flight planning steps, as this can be time-consuming and instead focus on the flight planning process.