

Indiana State University

2006 - 2007 Academic Annual Report

Department of Aerospace Technology

Vision Statement

[View/Modify Vision](#)

Below is your vision statement from previous years. Please take this opportunity to review it and if necessary update it.

Department of Aerospace Technology VISION AND MISSION The vision and mission of the Aerospace Department is to provide students with knowledge and skills necessary for successful careers in the aerospace industry. While our focus is on the Midwest, our reputation as a quality learning institution is International. The vision and the specific mission of the department program is to prepare well-rounded, technically and socially competent, ethical leaders for flight positions in the aerospace industry. The flight programs provide academically oriented instruction directed toward training a student in primary, advanced, and instrument flight, integrated with two years of general studies. Graduates must meet requirements for Federal Aviation Administration (FAA) certification as a commercial pilot with an instrument rating. This program prepares students for flight employment in aviation and in other fields, where knowledge of flying is required for successful job accomplishment. We accomplish this vision and mission by providing high quality academic ground and flight instruction. Flight instruction is provided through FAA approved flight schools contracted to Indiana State University. Several features make this program unique. It provides affordable, instrument ground training devices at no expense to students, and the costs for flight training are lower than other mid-western universities. It is flexible, allowing students to schedule a wide variety of specialty flight classes and an advanced systems course. To insure students have appropriate skills in such diverse areas as problem solving, critical-thinking, and communication, the program also requires a variety of non-flight related courses. Opportunities are also available to compete for scholarships and internships. The flight program requires the use of specific application skills. Examples include basic research methodologies, management information skills such as word processing, spreadsheet and computer assisted design (CAD), statistical applications, and business management skills, such as leadership building, teamwork, critical thinking, and communication. These areas provide students with opportunities to apply sound aviation management principles, while discovering the technological demand in today's business environment. Students use the medium of projects to marry the information with application skills. These projects are designed to help students achieve and master problems in the real world, attain and clarify a clear vision of realistic career expectations, and to contribute to a lifelong learning experience. The Department of Aerospace Technology's Professional Aviation Flight Technology is a premiere program that engenders the best principles of the Indiana State University mission, vision, goals of the university and those goals of the Commission for Higher Education in Indiana. Examples of adhering to the mission of the university include having an open assess opportunity to all student who qualify for enrollment at Indiana State University. This is because the department has a policy of open enrollment and provides all interested and able students opportunity to enter flight training and management training regardless of academic preparation. Indeed, often the department has 5-15 percent of freshman entrants actually coming out of the Academic Opportunity Program (AOP). These students tend to do very well as they prefer the hand-on learning environment that flight training provides. That issue aside a good percentage of the remainder of the entering freshman typically are among the brightest entering freshman at Indiana State University. This program routinely gets students who have been selected for a Presidential Scholarship as well as many

Dean's scholars. The department students rank at or near the top of SAT scores among all of the university and this reflects in the high achievers the department typically sees as additional scholarship winners as the students advance with their degrees, including several Rankin Memorial Award winners. External evidence of student scholarship abound. For example, Tony Michael 05' was the first student in the nation to win the prestigious Airports Council International- North America academic scholarship two years running. Further, in 2005, five of the seven aviation scholarship winners selected by the Aviation Association of Indiana were from this department and four of the winners from this program beating out competition from Purdue University, Vincennes University, and Ivy Tech College. Vision and core values has been repeatedly demonstrated by our students through their involvement in community activities such as the Terre Haute Air Show that is held each year at the airport. Since the inception of the event, faculty members of this department has overseen the event as the volunteer manager each year that has included more than a hundred students volunteers from this department as well as hundreds more from the campus as well as community members. Another example is the recent tornado that struck the Terre Haute Airport. More than 100 students volunteered their efforts with the cleanup. This resulted in several letters of appreciation from the Airport Authority as well as positive media coverage through newspapers and television. This program also hosts the "Flying Sycamores" flight team. In the fall of 2005 the department flight students hosted and participated in the regional National Intercollegiate Flight Association meet. Attended by eight Midwest universities, the association management was so impressed that they requested that Indiana State University consider hosting the national meet in 2008.

Year in Review

Accomplishments

As you have heard, increasing public awareness of Indiana State University's accomplishments is crucial to building student enrollment, influencing policy makers, and developing a place of pre-eminence in the Midwest. What do you consider to be your department's accomplishments for the 2006-2007 year that will contribute to this effort? [Please list in priority order and limit to no more than 8.]

The Department of Aerospace Technology has experienced an outstanding academic year that culminated in a number of "firsts" for the department. The department's Flight Team placed in the Regional Air Safety competition within three categories and took a first place finish in the flight simulator section of that competition, a first for the department. In October Public Broadcasting Station WIGN in Evansville featured broadcast two 15-minute documentaries on aviation training that featured department faculty and facilities. ISU was the only 4-year institution covered. These television presentations were shown 4 times on PBS throughout October and November and PBS distributed copies of the DVD to southern Indiana high schools. As a direct result of that effort PBS has asked the department to again participate in the upcoming fall education presentations as well. During the fall the department was selected as one of a few select programs as a distinctive program and was awarded a \$50,000 grant for the purpose of promoting the program. In March the department entered into its first official "bridge" agreement with Atlantic Southeast Airlines. This arrangement has potential to result in regular hiring preferences for department graduates. This agreement led to our first formalized internship agreement which will provide additional opportunities. In the fall the department received Michael Wood endowed scholarship from a formal graduate. This scholarship will enable students to be selected for an annual award of \$4000 for a period of four years, another first for the department. Finally, after a detailed study was completed and a follow-up with the Industrial Advisory Board the department made the decision to retitle the department name to Department of Aviation Technology effective with the fall 2007 semester. It is felt from all groups that the new title will better reflect our true direction and expert knowledge

areas.

Research and Scholarship

What is your assessment of accomplishments in the area of research and scholarship that is focused primarily on contributions to practice and discipline-based scholarship? Are you satisfied overall? In which areas do you feel your department does particularly well? In which areas do you feel your department needs to improve?

The departments research focus continued expansion this year with the award of a \$10,000 Promising Scholars grant to Professor Harry Minniear for work in Crew Resource Management. Work with the American Airport Executive Associations/Environmental Protection Agency \$600,000 grant award in 2002 continued through year three with nearly a \$50,000 allocation that was used to develop environmental training modules as well as maintain the TRANSOURCE website.

Grants, Contracts & Off Campus Professional Service

What is your assessment of accomplishments in the area of grants, contracts, and off campus professional service? Are you satisfied overall? In which areas do you feel your department does particularly well? In which areas do you feel your department needs to improve?

See item two above references the EPA/AAAE grant. This grant is directly utilized by a host of industry professionals from City Managers to Airport Managers and Environmental specialists. EPA has recognized this service function across there websites for use by key industry persons involved in the field of compliance with federal environmental standards.

Teaching

We would like to highlight innovative approaches to teaching. Has your department developed any pedagogies or practices you'd like to share with us? Please describe briefly.

The department is activity involved in distance education via the web, VHS, and DVD applications.

Course Scheduling/Enrollment Management

How is the department making sure that students are able to get the classes they need to graduate in a timely manner?

The department provides a Course Enrollment Flow Chart that reflects standardized course flows for student planning.

Outreach

What are the outreach opportunities for your discipline? (non-traditional modes of delivery and timing, etc)

The department conducts the only known associate degree program for pilots in the nation. Many of these adult learners are employed full time while pursuing their flight training. Faculty members are activity involved as subject matter experts in several department specializations at national conferences. One faculty members makes presentations internationally at a partner German university.

Assessment

Please share your stated student learning outcomes.

Each course taught within the department have individually tailored student outcomes that have been developed to enhance the learning process.

Strategic Initiatives

Community Engagement I

Please summarize your faculty's efforts in community engagement this year.

The department remains fully engaged with the community. Faculty make aviation presentations to local high schools and elementary schools. Faculty and students volunteer for Big Brothers and Big Sisters association for fund raisers, Faculty and students volunteer for the Terre Haute Air Show that attracts large crowds from the tri-state area.

Experiential Learning

What is your vision for experiential learning in your department?

as described above with the EPA grant.

Fundraising Activities

What steps have you taken to support fundraising activities in your department? How can your efforts be supported?

This continues to be an area primary focused on the university efforts although the hiring of a development officer within in college has placed more emphasis in this important area. However, with all faculty over deployed it is not very reasonable to expect faculty to be able to take on yet another tasking. If the university would be fund the departments and authorize more faculty then this area might receive better effort. ALthough the department did assist with the Michael Wood endowed scholarship.

Quality

Quality

Please provide 1-2 suggestions to increase the ability of your department or the University to meet the criteria above.

The department is already actively engaged in most if not all of the criteria addressed in the above notes. We are open to new ideas from other departments to help move the department closer to these preferred outcomes.

Feedback

This section is to allow you to share your ideas for enhancing enrollment, dealing with budget and other challenges facing the university community.

I continue to believe these reports do not result in meaningful changes at the department level. I do not believe the set of questions clearly indicate what type of response the university is expecting or desiring. The questions seemed loaded in that I would have to assume the writer is asking the correct question in the first place. These questions should start out by making a statement about the meaning and reason of the question. For example the question on shared learning outcomes seems less than relevant and without knowing what that set of agreed upon criteria as I cannot effectively answer the question, manly because I don' think it is a worthy question to begin with, at least as I understand it. This report is all well and good but unless the university better funds the departments budgets the university will continue to receive a less than fully satisfying experience from the majority of its

faculty. The department budgets, as I understand it, has not been adjusted in 15 years, certainly in the time I have been chair the budget have been static. During this same time period the university has experienced a many-fold increase in real dollars for its operations, indeed this is why I can up with a fee structure to generate some funds from out coursework to advance the program. This fee structure should not be needed as CHE would state that they provide funds for all programs at a level consistent with need. Somehow that has not translated into changes at the department level. Budgets that allow for some level of faculty development would be necessary but with 8 faculty members and a meager budget faculty are faced with paying their own way on many conference and presentations. Efforts for development cannot be enriched via a telephone. Faculty should be visiting the key providers of support and certainly assistance from a dean level position is also welcomed. The university should reduce the number of initiatives to a practical level and then not levy so many responces from the chairs since the chairs might not even agree with the initiatives anyway. It seems to me that every perceived idea someone hears about a conference or in a book is not always or perhaps even rarely applicable to ISU.