

Indiana State University

2005 - 2006 Academic Annual Report

Department of Aerospace Technology

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 has demonstrated excellence by developing relationships with many relevant internal and external constituencies. These include the International Affairs office and the Study Abroad Office in the application of our newly created student exchange program. This cooperation directly relates to an external constituency the International University of Applied Sciences located in Bad Honnef, Germany. In March 2005, the department secured an initial 5-year agreement for the exchange of students that has been well received. During the fall 2005, the department was asked on short notice to visit the university for the purpose of expanding the program for a faculty exchange and to discuss the development of a joint-degree program. The latest request was recently approved through a travel grant and approved sabbatical request by Indiana State University. The specifics of this program will be determined over the course of the next couple of semesters. Another example of success this year was our recent ability to successfully compete with larger programs and gain paid year-long internships at United Parcel Service in Louisville, Kentucky. Until last year, the department had never been able to win these coveted positions. During 2005, we were able to get one student appointed and this spring we were able to get two students selected for the one-year internships that include fulltime salary. Finally, the department has been awarded the only Environmental Protection Agency (EPA) to a aviation program in the nation for the management and oversight of the primary environmental management website (<http://www.transource.org/>) dedicated to informing and providing doctrine to the public managers of airports and small towns and cities across the nation about the importance of proper and time-critical environmental procedures as well as current news items. In addition, the department developed two training modules that provide specific training in spill prevention and storm water management (<http://isu.indstate.edu/SPCC/>) that form the basis of a managers first resource when completing recurrent training or initial training for new employees. The department partnered with the American Association of Airport Executives (AAAE) in the management of this grant of \$600,000. This has resulted in the employment of two undergraduate researchers working with a PhD fellow to further their learning as well as mentoring provided by two faculty members from different university departments. The department also partnered with the Department of Health, Safety, and Environmental Health Science in the management of this grant. The Department of Aerospace Technology programs have been in steady demand by internal and external demand for department graduates. In addition to the UPS internship, the department routinely has students participating with internships at the Terre Haute Airport and various other airports around the state and region. According to early media reports just after the 9-11 terrorist acts aviation seemed destined for a national or worldwide slowdown. In fact within six months after the terrorist act the market had stabilized and this department did not experience the anticipated level off or reduction in student applicants. Indeed, this department has experienced eight straight fall semesters of increased enrollments (accounting for military deployments). The enrollments grew from 125 students in 1998

to 302 students in the fall semester 2005, more than doubling the student enrollments. The departments associate degree pilot enrollments grew from 209 in the fall of 2001 to 247 in the fall of 2005 representing an 18 percent increase. This increase in enrollments carried through with graduations climbing from 4 in 2001 to 11 in 2005 placing the program in the 3rd quintile for the university. The departments Professional pilot bachelor's degree enrollments grew from 209 in the fall of 2001 to 247 in the fall of 2005 representing an 18 percent increase. This increase in enrollments carried through with graduations climbing from 26 in 2001 to 40 in 2005 placing the program in the 1st quintile for the university. The pilot career field rebounded quickly and now the FAA reports over 80,000 flights each business day and becoming a pilot has become popular again as noted in this recent CNN article

(<http://www.cnn.com/2006/US/Careers/02/22/cb.fun.jobs/index.html>) showing that the pilot career field as one of the most enjoyable in the marketplace. Likewise the departments Aerospace Administration bachelor's degree program grew from 29 students in the fall of 2001 to 55 students in the fall of 2005 nearly doubling the program. This increase in enrollments carried through with graduations climbing from 9 in 2001 to 18 in 2005 placing the program in the 2nd quintile for the university.

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 department has been awarded the only Environmental Protection Agency (EPA) to a aviation program in the nation for the management and oversight of the primary environmental management website (<http://www.transource.org/>) dedicated to informing and providing doctrine to the public managers of airports and small towns and cities across the nation about the importance of proper and time-critical environmental procedures as well as current news items. In addition, the department developed two training modules that provide specific training in spill prevention and storm water management (<http://isu.indstate.edu/SPCC/>) that form the basis of a managers first resource when completing recurrent training or initial training for new employees. The department partnered with the American Association of Airport Executives (AAAE) in the management of this grant of \$600,000. This has resulted in the employment of two undergraduate researchers working with a PhD fellow to further their learning as well as mentoring provided by two faculty members from different university departments. The department also partnered with the Department of Health, Safety, and Environmental Health Science in the management of this grant. This grant will stretch into the future and establish the department as a collegiate leader in this area.

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?

This department has excelled in gaining the outside support and has been spotlighted by AAAE and EPA for providing an outstanding product for industry experts. This department is growing a new bred of faculty member that will continue to become involved in the areas of research and grant generation.

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.

Professor Steve Shure has been working to improve our off-campus delivery of distance courses through the "Breeze" program that has been gaining in acceptance with other faculty members.

Course Scheduling/Enrollment Management

What have been your greatest challenges in scheduling courses to meet student needs this year? How were you able to overcome them?

The reduction in adjunct dollars has had a negative impact on the department and resulted in lower SCH generation. This coupled with the increased student enrollment has directly resulted in lost opportunity for expanding the student's exposure to industry experts.

Outreach

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

We currently offer the nation's only distanced-based associate degree. We expect to continue to offer this opportunity to those in need into the future. We are exploring the development and application of a B.S. degree using the same format.

Strategic Initiatives

Development Activities

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

This area is a new area for the department and we continue to gain knowledge in this area as a potential area of support for the department.

Community Engagement I

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

In regards to the strategic mission of the university and discussion of what this program is doing on the university's travel path to a status of Pre-Eminence, this program has demonstrated excellence by developing relationships with many relevant internal and external constituencies. These include the International Affairs office and the Study Abroad Office in the application of our newly created student exchange program. This cooperation directly relates to an external constituency the International University of Applied Sciences located in Bad Honnef, Germany. In March 2005, the department secured an initial 5-year agreement for the exchange of students that has been well received. During the fall 2005, the department was asked on short notice to visit the university for the purpose of expanding the program for a faculty exchange and to discuss the development of a joint-degree program. The latest request was recently approved through a travel grant and approved sabbatical request by Indiana State University. Another example of excellence is our recent ability to successfully compete with larger programs and gain paid year-long internships at United Parcel Service in Louisville, Kentucky. Until last year, the department had never been able to win these coveted positions. During 2005, we were able to get one student appointed and this spring we were able to get two students selected for the one-year internships that include fulltime salary. Finally, the department has been awarded the only Environmental Protection Agency (EPA) to an aviation program in the nation for the management and oversight of the primary environmental management website (<http://www.transource.org/>) dedicated to informing and providing doctrine to the public managers of airports. The department partnered with the American Association of Airport Executives (AAAE) in the management of this grant of \$600,000. This excellent example of

experiential learning has resulted in the employment of two undergraduate researchers working with a PhD fellow to further their learning as well as mentoring provided by two faculty members from different university departments.

Experiential Learning

We are interested in hearing about any innovative approaches you might have taken to incorporate experiential learning into your course or departmental work this year.

This area has not been expanded upon during during the 2005-06 year but the department continues to be actively involved with industry leaders to bring our students opportunities to excel with hands-on exposure to industry.

Future Goals

Future Goals

The University is highlighting experiential learning, community engagement, and eminent programs as aspects of our campus that will attract students and resources. How is your department planning to contribute to these strategic initiatives in ways that will help ISU be recognized as a Pre-eminent University?

This department will continue to lead the university in all these areas. The department will likely attempt to let the campus community better understand by example how excellence can be achieved in these areas.