

Global Experiences of Aviation Students

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Abstract - Five years ago the faculty of the Aviation Technology Department at Purdue University decided that it was important for students studying Aviation Management, Aviation Technology and Flight Technology to have international experiences. A three credit hour globalization requirement was added to the curriculum, which could be satisfied by studying abroad for a semester or participating in a ten day spring break aviation tour. The purpose of the trip was to expose students to the global work place, the details and demands of travel abroad, and foreign cultures. We visited aviation museums, aviation manufacturing facilities, and we studied the history of aviation, in particular, the effects of WWII on aviation development. Time was also budgeted for cultural exploration and sightseeing. The student feedback has been overwhelmingly positive and plenty of memories were created. In this paper we will discuss how the tours have been organized, selection of the sites and learning experiences, and the methods used to attract an audience of sufficient number to make the tour financially feasible.

Index Terms - Study abroad, Aviation Technology Curriculum, Globalization Requirement.

GLOBALIZATION REQUIREMENT

For some time now, Purdue University has ranked near the top of higher education in the number of international students enrolled. Students from India, China, and South Korea, for example, comprise a significant percentage of the total number studying in engineering, sciences, and mathematics at Purdue. The university and its students have benefited immensely from the multi-cultural environment that has been created as a result of this foreign enrollment. As the university has pursued the next level of preeminence over this decade, the logical step forward in this direction was to encourage our students to pursue a global experience of their own. The Aviation Technology (AT) department's response to this challenge was to establish a "Globalization requirement" for students, which could be satisfied in any of seven different ways, including the completion of a number of university courses that focused on related topics, a study abroad term, or an AT-sponsored study or research trip.

Over the past few years, the faculty has been actively engaged in creating a series of global experiences for both students and faculty in our department, which would satisfy this globalization requirement. The commitment to this initiative stems, in part, from the feeling that there are few industries as truly global and interconnected as aviation and aerospace and that to remain pre-eminent we must insure that our students and faculty teach and learn from a global perspective.

Five years ago, the department began a long-term project to integrate the concepts of globalization into all of our courses and curricula while also expanding opportunities and requirements for students to participate in international travel and education. A standing faculty committee was created to investigate the need for globalization of the curriculum, develop globalization strategies, and foster the implementation of these strategies. This committee continues to meet to insure that this on-going effort continues.

As part of this initiative, the committee developed a long-term plan that defined the following globalization strategies. The activities were presented to the faculty as a whole who supported the effort and began to implement many of the recommendations immediately. The time-action plan developed by the committee included: create a long term globalization plan, integrate international and cultural issues into the curriculum, incorporate globalization graduation requirements into departmental curricula, develop and encourage student study abroad experiences, increase student participation in international internships, integrate globalization activities into the departmental strategic plan, develop independent sources of income to enhance student study abroad programs, develop and teach aviation specific courses in the Oxford summer study abroad program, develop and conduct aviation specific international travel and study trips, and develop and implement aviation specific cooperative international education programs.

The first nine of these objectives have either been achieved, are nearing completion, and/or are ongoing. The department has instituted and incorporated the internationalization of students and faculty as part of both the departmental and school strategic plans. Most applicable departmental courses now include international components. Increasing numbers of Aviation Technology (AT) students are participating in formal study abroad programs as well as international internships. Two Aviation Technology specific educational travel programs have been developed. The first study trip was conducted during the spring of 2003. The next two were offered in 2004, and spring break trips were organized in 2005, 2006 and 2007. Numerous students registered for these trips. Aviation Technology faculty members also taught aviation specific courses at Oxford in 2004 and 2005.

The Aviation Technology department now requires that every student meet a specific globalization requirement in order to graduate. As part of their academic career, every one of our 600 students will be required to complete one or more internationalization activities in order to graduate. The globalization requirement can be fulfilled in several ways, and money may be the driving factor in a student's decision.

The following are approved methods by which to fulfill the globalization requirement:

- Complete a study abroad term

- Complete an internship outside the U.S.
- Complete an Aviation Technology sponsored or approved study trip (AT 452 & 453)
- Provide documentation of having lived/traveled outside the U.S. for at least 90 days after a student's 12th birthday (does not have to be consecutive)
- Complete one of the following courses: COM 224, 303, 424; ECON 368, 370; HTM 372
- Complete 12 credit hours in one foreign language

We feel that actually going overseas is the preferred option, but some students can't afford the higher fees and opt for courses taught on campus. We are looking for sponsors and scholarships to enable all students to experience a foreign experience.

GLOBALIZATION PREPERATION COURSE AT452

Prior to participating in a departmental international study trip students must complete the globalization preparation course AT452. This is a nine weeks, 2 credit hour course, which prepares the student for their travel overseas. Topics discussed in this class include: WWII history and the D-day landings in Normandy, airports and airlines used on this trip, money, exchange rates and budgeting, transportation systems like air transportation, high speed rail, ferry, and metropolitan transportation systems like subway, trolley and bus lines, cultural sites in London, Paris and Amsterdam, and student behavior. Students are given specific topics to research and a formal presentation of their findings is scheduled. Videos are used to introduce the students to historical and cultural sites in London, Paris and Amsterdam.

The main advantage for the faculty members of AT452 is that they have the opportunity to get to know the students. Students traveling together typically have a strong interest in aviation, but may be enrolled in different plans of study in Aviation Technology, therefore, it is important during the nine weeks leading up to the trip that students and faculty members get to know each other and develop a trusting relationship before they actually travel. During this time, the faculty members involved actively stimulate the formation of a tight group and students learn that they must be able to rely on each other.

ITINERARY SPRING BREAK 2007

Following these months of study and preparation, we started our 2007 Aviation Tour of Europe on March 9th.

- Friday and Saturday: Transportation from Purdue University Airport to Chicago O'Hare International airport, United Airlines flight to London Heathrow. Arrived Saturday morning 0800 AM and started a sightseeing tour with a tour guide of major cultural sites in London. Saturday afternoon was scheduled for studying the London transportation system, and visiting major sites in London.
- Sunday: Free day in London with opportunities to visit Buckingham palace, the British Parliament and the Tower of London.



FIGURE 1
UNITED AIRLINES AIRCRAFT IN CHICAGO

- Monday: Visit to RAF Duxford air museum. This museum has one of the finest World War II collections in the world.



FIGURE 2
SPITFIRE AIRCRAFT DURING AIRSHOW

The new Air Space addition houses a collection of British commercial aircraft including the Concorde. A very interesting part of the museum is the restoration area, where students can view the restoration work on historic aircraft. The students also had the opportunity to witness an air show by a Spitfire and Havard aircraft. It also houses an impressive American Air museum with a collection of very interesting aircraft like the SR-71 Blackbird, B-17, B25, B29, B52 and P-51 Mustang. The students also had the opportunity to witness an air show demonstration by a Spitfire and Havard aircraft. It also houses an impressive American Air museum with a collection of very interesting aircraft like the SR-71 Blackbird, B-17, B25, B29, B52 and P-51 Mustang.



FIGURE 3
SR-71 BLACKBIRD AIRCRAFT

- Monday night: transportation to Portsmouth in the evening, and overnight ferry on board of a Brittany ferry to Caen, France. Arrived the next day.
- Tuesday: tour of Omaha Beach, and other historic D-Day historic sites, where American troops landed as part of the liberation of Europe, and the American Cemetery. Transportation in the evening to Paris.
- Wednesday: Free day in Paris with opportunities to see important historical and cultural sites. Students were free to select the sites they would like to visit.
- Thursday: Free day in Paris and students planned trips to Versailles and an Aviation Museum.
- Friday: High speed rail from Paris to Amsterdam arrived in Amsterdam at 1400.
- Saturday: Tours to the Ann Frank House, Rijksmuseum, Van Gogh museum and the Heineken brewery.
- Sunday: Flight from Amsterdam Schiphol Airport to Chicago, and ground transportation to the Purdue Airport.

HOW TO START A PROGRAM

First step is to research existing university resources and programs. Chances are that there is already an established study abroad office at your university that organizes and supports traditional semester long study abroad opportunities. In our case, we contacted the international study abroad office and made an appointment with the study abroad program manager. She explained the study abroad program requirements and introduced us to their guidelines and checklist for use in developing a proposal and a budget. The first year we received a \$5000 dollar grant to develop the Aviation Tour of Europe. The disadvantage of an established study abroad program is that your program must follow their rules, which means starting the paperwork process about eight months before the beginning of the study abroad tour. On the other hand, one significant advantage of the established study abroad office is that they take care of student registration, student health insurance, oversee the collection of tuition and fees, and are available for advice.

The Bursar's office collects the tuition and fees and deposits the money in an account so that we could pay the bills. Running the program through the study abroad office enables students to apply for financial aid to fund the trip.

Budget

Faculty members prepared a budget for the trip and submitted this with the program proposal to the study abroad office. It is wise to be conservative in projections of cost, as the actual cost at the end of the trip tends to be higher than projected. This was especially important for this trip, as the total costs were borne by the students, without grant or departmental funding support.

TABLE 1
AVIATION TOUR OF EUROPE 2007

Enrollment ²⁹		
	Per student	Total
Program Fee	2,500	72500
Insurance	29	<u>841</u>
		73341
Total estimated income		73,341
Faculty salaries (2)	1,800	3,600
Faculty air fare	1,760	3 520
Subsistence	1,400	2,800
Purdue faculty expenses		9,920
Petty cash		500
Class activities	1,860	53,940
Subtotal program expenses		54,440
Insurance expenses		841
Total program expenses		<u>65,209</u>
Net total		8,132

The budget is an estimate and every year we tend to have more expenses than anticipated. That is why there is a net total. Any net total after all bills are paid will be used for next year's study trip.

The use of a travel agent

The first year that we organized the Aviation Tour of Europe we used a travel agent, but arranged all airfare ourselves. As it turned out, this proved to be quite a bit of work and saved little money. Therefore, we elected to use a travel agent the next year, and relied on them to develop a plan based on our specified needs and desires. They prepared an itinerary and quoted a price per student. University policy mandates that quotes be obtained from at least three different travel agents, but the final choice may be based on matters other than cost. The use of a travel agent has advantages, particularly if flights are cancelled or re-scheduling is necessary, for instance, if students have to go home early or later for various reasons. The travel agent is also able to "hold" seats on a flight which allows for flexibility if students need to drop the course. The travel agent required a deposit of 10% and the payment in full one month before the Aviation tour started. It is important to tell the students that they lose their

deposit if they drop after the drop date and if they decided to drop the Aviation Tour after the full payment is due that they will lose their money. The travel agent offered a cancellation insurance policy to protect the students from losing their money if they have to drop. In four years, we only had a few students drop out early mainly due to insufficient funding.

Students and Money

A typical questions asked at the beginning of the trip is, how much money do I need for the trip? We have found that the average student will spent about \$400, and they quickly learn that the exchange rates are not in their favor in Europe. We stress that students have several different sources of money, and suggest credit or debit cards and at least one other source of money like an additional credit/debit card or travelers checks. We also stress not to carry all sources of money in one wallet just in case it gets stolen or lost. It seems that we have every year a few students who experience trouble with credit/debit cards and are not able to use the ATM system in Europe. We explain that the debit card is the cheapest and easiest way to exchange money in Europe. Changing cash tends to be more expensive, and given that debit cards are generally accepted everywhere in London, Paris and Amsterdam, there is no need to carry large amounts of cash. Debit cards can even be used to pay subway tolls.

We have observed that students tend to spend most of their money in the first few days and, therefore, it is important to stress budgeting of money in the preparatory course, AT452. When students run low on money near the end of the trip, an important lesson begins on the importance of planning ahead, so that the funds are there for the essentials. Obviously, faculty members are willing to assist students in need, but one of the lessons of traveling is learning how to forecast travel expenses, and then adhering to that budgeted amount.

Student behavior



FIGURE 4
STUDENTS BEHAVIOR AND DRINKING

Drinking on a US campus seems to be very popular among students, and many students experience with alcohol. Listening to students, it almost appears to be the number one goal of spring break, especially when they go to Florida, or

other popular spring break destinations. When we started our Aviation Tour of Europe program, we realized this phenomenon and were not sure what to expect. On one hand we wanted the students to have fun, but we also had no desire to lead a drinking party through Europe. Realistically, a foreign culture includes the night life, and some students are going to explore that with the idea of having some fun. It is important to discuss this issue in advance, and to establish a code of conduct. The students are representing the university and should behave in a responsible manner. The minimum drinking age in many European countries is 16 or 18 years of age, while in the United States you have to be 21, and for some students this is the first time they legally can purchase alcohol. It was decided not to set a curfew, or to attempt to closely regulate the decisions made by students as to destinations and schedules in the evenings. The philosophy of the faculty involved is that having an open mind and engaging in a dialogue with students on these issues is more effective than enforcement of stringent policies. Certainly, students enjoy the party when traveling, and that is not a new experience to them. On some occasions they did so in excess, and it was necessary to have a more direct discussion following those incidences.

Faculty members traveling on these tours have different philosophies about their level of interaction with students during the trip. Some feel that students should find their way around, learn the transportation system, and develop a sense of independence. Others, including the lead author, value those lessons of independence, but will also elect to experience their world with them. It was very rewarding to spend time with the students, and many students said later that they gained a new sense of respect for the faculty members who enjoyed the night life with them during the trip. Typically, the group of 28 students would divide in 5 or 6 different groups of students and we made sure that we spend time with all students.

Emergencies

Murphy's Law states that everything that can go wrong will go wrong and this has been very much the case for these Aviation Tours. No matter how well prepared we were, we encountered some situation that needed to be dealt with. During the second year a terrorist action occurred in the French metro system while we were in France. The faculty member received many phone calls from worried parents and it was decided to skip Paris and return home early. During the third year one student's purse was stolen with her credit cards and passport. It happened on a Friday night and we were leaving that Sunday. The US embassy in Paris is not open during the weekend to obtain an emergency passport, so we had to wait till Monday to go to the Embassy. We missed our flight and had to rebook to a Tuesday flight. One faculty member went home with the rest of the group on Sunday and the other faculty member stayed behind with the student till Tuesday. Off course every year we have our share of students that lose credit cards, their glasses or cameras.

Student and faculty relationships

One of the great opportunities of the aviation study trip is to interact with students in an environment different than that found in a class room or a laboratory. Without exception, this has been a positive experience, which results in new-found mutual respect, and a relationship that carries on after the trip is over. Faculty members participating in these study trips have commented that the experiences have helped them to better understand student issues and behavior, which should be beneficial in the classroom and in relating to students, in general.

Faculty member considering these types of activities need to give thought to the relationship they wish to foster with the overall group of students. Should students be set free in the sense that they need to learn the details of transportation in each country, for instance? Is it better for the instructor to take a hands-on approach to teaching these details, and helping students find their way? Similar questions pertain for choices about sight seeing, shopping, and night life. If the instructor is actively involved in the decision making, students may actually see more sights, for instance, but one of the learning outcomes expected for such a trip is the development of independence in a foreign land and culture. In this case, both faculty members enjoyed the time spent with the students, but also operated on the theory that students can and should explore on their own.

The requirements for faculty members are that they have travel experience in Europe, and they should like to be around students 24 hours a day for 10 days and be interested in what they are doing, and they shouldn't take life too seriously, at least, not all the time. Good organization skills and leadership qualities are a must.

Advertising for the Aviation Tour

Before the first spring break tour we organized several call outs so that students could learn about the aviation spring break tour, in addition we had a flyer on the Aviation Technology website and the course description and itinerary were posted on the web site of the study abroad office. We had set up a booth at our job fair in the fall so that we could reach a large audience. We have reduced our efforts in advertising, because we had more applications than we could fill. The last two tours had the maximum enrollment. Students that came back from the tour with good experiences were the most effective advertisement. It was not practical to take more than 28 students, because it was difficult to arrange transportation and accommodations for larger groups and more students would require more faculty members to go along.

Faculty commitment

When we started the program five years ago, we agreed that we would teach the preliminary course AT452 and the tour of Europe on a overload basis without extra compensation except for a subsistence allowance and salary for one week during spring break. The organization of the tour, answering student questions, solving problems related to the tour and teaching of AT452 requires a substantial amount of time which is not compensated. We only do this because we really

enjoy the experience, but being away from family for ten days during spring break is not easy. The Monday morning after spring break we are really tired while the rest of the faculty is refreshed after a week vacation. We would like to rotate faculty members every three years, and hopefully we will find volunteers to continue a great experience.

Future plans

Due to the success of our Aviation tours, and the large number of students that would like to participate in them, we have plans to organize a second Aviation Tour during the spring break period. The new trip will go to the Far East, which is a new very important area for the aviation industry, for instance, the fuselage of the new Boeing 787 is manufactured in Japan. We plan to visit Seattle and the Boeing factory, fly to Japan and visit Tokyo, ride the high speed rail system to Hiroshima to witness the effects of nuclear war, and fly back to Hawaii to visit Pearl Harbor. Like our Europe tour, the Far East tour will also involve WWII history, Aviation manufacturing, and transportation systems.