

# INTERNATIONAL OPPORTUNITIES IN ENGINEERING TECHNOLOGY – AN ENTREPRENEURIAL APPROACH

Jeremy B. Ross, East Tennessee State University; Keith V. Johnson, East Tennessee State University;  
Kevin W. Varney, East Tennessee State University

## Abstract

The East Tennessee State University Department of Engineering Technology recognizes the crucial importance of international exposure and learning opportunities for our students; however, ETSU does not have an overseas campus or a permanent study abroad program center outside of the United States. Considering the fact that most of our students are from the East Tennessee and Southwest Virginia area, this need is critical in providing a comprehensive, broad-based education. Like most schools, our greatest challenge is funding. This challenge has led us to create an entrepreneurial approach to funding and delivery of international opportunities for Engineering Technology students. In short, the school has established a program that has attracted private funding and created mentorships and job opportunities for students along with a consistent study abroad program for ETSU students.

This entrepreneurial approach has three components: funding, delivery and student recruitment. Overwhelmingly, donors provided partial sponsorships for all 13 students in the first class. Various cultivation, solicitation and stewardship processes were employed as well. The ETSU at Rome Program has been underway for approximately two years. This entrepreneurial approach has provided additional private funds for students, mentorships with community leaders, international opportunities for students and additional revenue to the university through added tuition dollars.

## Vision

The ETSU at Rome Program has been a life-changing experience for many students. The initial idea for the program came about in late 2007. The vision for the program was to provide an international experience for Engineering Technology students. This program is currently the only study abroad program in the Technology Department. The vision for the program has evolved since its inception which is to create a permanent presence abroad, to change the local culture's views on study abroad, and to create more courses that will be added into the technology curricula, as opposed to being only electives.

Creating the first technology program abroad at ETSU, financing the operation, and dealing with the local mentality regarding study abroad programs are all major hurdles that have presented themselves throughout the course of the program. Most ETSU students are from the East Tennessee and Southwest Virginia regions. It has been found that many of the local students are of the mindset that study abroad is out of their reach. Most students have never traveled abroad, and some have never even flown. To these students, traveling to another continent seems too big, too incomprehensible, for them to accomplish. Overcoming these hurdles requires an entrepreneurial approach. This paper describes how these obstacles were addressed with the creation of a successful program in Rome, Italy. The following topics will be discussed:

- Funding
- Curriculum
- Mentorship Program
- Growth/ Future Plans

## Funding

Using this entrepreneurial approach to funding was considered as a way to change student culture. Raising funds to defray costs, it was believed, would help change students' outlook about the expense of traveling abroad. Student funding to study abroad is the greatest obstacle for Engineering Technology students and most students at ETSU. The approximate costs for a student to study for three weeks in Rome for a three-hour course are:

**Table 1. Approximate Costs per Student**

\$2,475	Program costs (housing, side trips, etc.)
\$1,000	Airfare
\$795	Tuition
\$500	Food
\$300	Books, passport, entry fees, other
\$5,070	TOTAL

For students at ETSU, these program costs presented a challenge for most, in spite of there being some scholarships at ETSU to assist in these expenses. Every student at ETSU pays a \$10 fee per semester for foreign travel. This money is made available in the form of scholarships to students desiring to travel abroad. For the ETSU at Rome Program, students can apply for up to \$1,500 (\$500 per week) if they have a 2.75 grade point average, possess financial need, and the course will directly meet their degree requirements. Most students have been getting the full amount, and this brings the cost down to \$3,570, which is still prohibitive for most.

Funding is usually the biggest challenge many students face when considering studying abroad [1]. Considering the financial challenges, an entrepreneurial approach to attaining private funding was necessary. With effort and determination, students and universities can discover money to assist in studying abroad [2]. The first step was to research potential funding sources, using an approach designed by the University of Indiana School of Philanthropy [3]. This approach scores and ranks potential giving prospects in three categories: 1) linkage, 2) ability and 3) interest. Linkage is the relationship one has with ETSU. For example, are they an ETSU Foundation member, a staff member or a member of the alumni? Ability refers to one's resources. Do they have significant personal wealth or influence over corporate giving? Finally, interest simply refers to one's interest. Are they an engineer, architect, contractor or just an individual who has traveled abroad and knows the importance of such an experience? All prospects were rated on a scale of 1 (being the lowest) to 3 (being the highest) in all three categories. A total score was given for each prospect and the scores of 9 were focused on first, then 8 and so forth. This allowed fundraising members to prioritize and identify the best prospects.

**Table 2: Potential Donor Evaluation Chart**

Prospect	Linkage	Ability	Interest	Score
Loyal Donor & General Contractor	3	2	3	8
Tennessee Bank of Money	2	3	1	6
Federal Reserve	0	3	0	3

During the planning stages in 2008, the most beneficial and entrepreneurial idea in identifying prospects was to target architects, engineers and contractors who had been contracted for work on campus in the last five years. All of these individuals and organizations had the maximum rat-

ings in linkage, ability and interest. Also, the school already had relationships with them, and some cultivation had already taken place. Essentially, organizations that had received contracts from ETSU were asked to consider providing a \$1,000 sponsorship for a student in their field to study abroad. This approach was highly successful, and all 13 students for the 2009 summer course received a sponsorship, and most received the ETSU International Scholarship. In all, \$27,560 in sponsorships and scholarships were provided for the 2009 class.

Fundraising for the 2010 program implemented new strategies. With further deterioration in the economy and particular challenges in the construction industry, many of our 2009 sponsors were not in a position to provide additional funds. Therefore, individuals who had strong ties to the university, an interest in study abroad, and a previous history of support to the College of Business and Technology were targeted. News coverage of the 2009 program, word-of-mouth about the program, and strong university leadership helped attract new donors and provided good stewardship to the donors in place. For the 2010 class, 16 donors provided scholarships, and numerous ETSU scholarships were granted. Funding provided to the students for 2010 totaled approximately \$38,000.

Fundraising for the 2011 program is in the initial stages, and many of the same funding strategies for the previous years will continue. However, an effort to create larger gifts and an endowment will be added to the efforts. Currently, a \$24,000 endowment has been initiated to help fund the program. Also, a solicitation has been made to one of the current major donors, and a proposal for a \$25,000 - \$50,000 endowment is under consideration. Another goal is to create major gifts and endowments to provide financial stability for future growth and efforts.

Other key factors to attaining funding for the ETSU at Rome Program have been partnerships and participation among university leaders. The President of ETSU, the Dean of the ETSU College of Business and Technology, and the instructors for the courses have personally sponsored students and made direct requests and appeals for funding. Additionally, other university staff members, including the provost, have taken a direct interest in the program and offered support to help all eligible students attain any available public funding.

Finally, there has been a concentrated effort to initiate and maintain a stewardship program. All students contact their sponsor with thank-you cards and letters before departure. While in Rome, Italy, donors receive a postcard from their student and a short video, via email, thanking them for such

---

an amazing experience. After returning to campus, a reception is held in the President's Conference Room with the donors, and a presentation is given by the students to share their experience. Each student personally thanks their sponsor and gives the donor a personalized gift. For 2010, each student picked out a handmade Italian wine stop. Additionally, donors are recognized in local newspapers, campus publications and other marketing materials. Another stewardship opportunity—from the planning stages in 2011—came in the form of a donor trip. All sponsors, donors and a few new prospects will be offered the opportunity to visit the ETSU at Rome Study Center and personally meet the student they are sponsoring. Other special experiences and excursions have been designed for them during their visit. Each donor who enrolls in the program will be asked to make a minimum \$1,000 donation to sponsor one student as part of their enrollment fee.

The funding efforts to date have provided over \$100,000 to support the ETSU at Rome Program. Cultivation, solicitation, partnerships, stewardship and strong support by university leaders have been essential to the success to date. Many, if not most, of the students who have participated in the program have never traveled abroad or even flown on an airplane. Their stories have been told, and they have touched the hearts of the donors. One girl related that she planned to withdraw from the program because of a lack of funding. She was working two jobs but still lacked the resources necessary for the course. She was able to thank her donor during the President's Reception, and she told him that because of his sponsorship and her family selling four cows, she was able to participate in the program. Other personal circumstances and her sincerity had an emotional impact on many. The story of this student and many other touching stories are shared with the donors as much as possible. This has resulted in the donors feeling good about their investment and feeling special to their student and ETSU. It is our hope that continual personal involvement by the donors will result in new, creative opportunities for students.

## Marketing/Recruitment

The marketing and recruitment process is an aspect that requires much time and effort because without students this program cannot exist. It is important that students feel comfortable with their professors, be well informed, and clearly communicate expectations for their experience to be successful. Much time and consideration is spent to make this take place for the students. Numerous ways to spread the word regarding the ETSU at Rome Program have been established. Posters have been created and placed on bulletin boards across campus in academic buildings, dormitories

and student centers. Going class-to-class presenting the program has proved to be a beneficial way to increase student enrollment. A Facebook group has also been created as a hub for discussion and information. The site is used for students to view pictures from Rome, new details regarding the trip and pre-departure meetings, and discussion aspects with current and former classmates. With each new class traveling to Rome, the word will spread around campus. Numerous students have enrolled who were referred by a friend who attended a previous course in Rome.

Due to the efforts of one instructor and two students, a website for the ETSU at Rome Program, [www.etsurome.co](http://www.etsurome.co), was launched. This website incorporates photo galleries, program details, donor recognition, various forms, and previous work (i.e., sketches, projects, writings, etc.). It also serves as a focal point of information for anyone interested in the program. The best recruitment technique is felt to be the personal attention focused on each student throughout the entire process. Creating a comfortable environment for students is vital to the success of the program. The more comfortable each student is with the entire concept of studying abroad, before and during the trip, the better everyone's experience abroad will be. The key to a successful program is making it all about the students. This "all about the student" approach has helped students feel more comfortable with pre-departure aspects as well as what to expect once they arrive abroad. Program leaders personally meet with every potential student interested in studying in Rome for roughly 30 minutes. Listening to every student's concerns, and addressing these needs, provides a better overall experience for everyone involved.

Hardly any students are familiar with all of the details involved in preparing for a study abroad experience. Thus, the students are helped to complete everything involved in receiving their visas and informing them of what to expect once they arrive. About three or four group meetings are held prior to departure. The first meeting is a get-together, usually at a restaurant during the middle of the fall semester. This meeting is mainly for students to get to know one another, though scholarships, visas and passports are also discussed. These are things that should be completed prior to the spring semester.

During the other pre-departure meetings, housing arrangements, flight information, emergency contact information, money exchange, and all other important details that should be examined prior to departure are discussed. Preparation is vital to the success of recruitment and the overall experience students have while studying abroad. It is important for students to be comfortable with one another as they will be a virtual family while together abroad.

---

## Curriculum

It is hoped that students will gain knowledge, experience the culture, and grow as individuals during their stay abroad. Studies in recent years have shown a significant impact of internationalization on university curricula across the country [4]. Since the ETSU current course offerings last only three weeks during the Pre-Summer Session, the curriculum was designed so that students will be able to gain as much as possible from their study abroad experience. A typical school day in Rome consists of a short lecture prior to a walking tour to complement the discussions. Generally, a one-hour lecture takes place in the classroom in the morning to discuss details of the sites to be visited afterward. The walking tour is usually 3-4 hours visiting sites throughout Rome.

Side trips have also been incorporated into the course. These excursions are not only learning experiences for students but a get-away from the bustling streets of a large city. Each year students visit Pompeii and Tivoli, both of which can be easily completed as a day trip. ETSU has partnered with a professor of archeology to accompany the students around the historic city of Pompeii. While in Tivoli, a visit to Villa d'Este is included in order to study its Renaissance architecture, gardens, fountains, and to spend a day outside the bustling city of Rome.

For the required coursework, students are divided into small groups and are assigned a time period. These groups, typically 3-4 students each, are assigned Antiquity, Medieval, Renaissance or Baroque. Each group is required to complete an introduction to the time period, a profile of a key figure, and six case studies. For the case studies, students depict information from lectures, observations and field studies of a building or site from their assigned time period. Along with this project, students are also required to complete a sketch/photo journal. All of the students' work is compiled into a large project detailing time periods, key figures and sites throughout historic Rome, and an on-campus presentation is made documenting the effort upon returning to the United States.

## Mentorship

Another entrepreneurial aspect of the program is the relationship that can be created with the student and his or her sponsor. Sponsors are asked to mentor a student as a part of the ETSU at Rome Program and numerous opportunities for interaction are created. Students are encouraged to continue their relationship with their sponsor throughout their professional career as well. After the students' experience in

Rome, a non-formal gathering is scheduled for the students to meet their sponsors. This meeting provides an opportunity for the students to express their appreciation and to share their experiences. The first year's gathering was so successful that many sponsors expressed interest that day in contributing funds for the following year. Also, several students have attained employment and other benefits as a result of this arrangement.

When most donors contribute to a university, they are unable to witness the direct impact that they are making on students' lives. Typically when a donation is made to a university, a check is written, a receipt is provided, and a name is printed in a donation listing. However, the ETSU at Rome Program is different. Donors are considered as sponsors, and they are much more involved in the process because of the one-on-one communication with their student recipient.

Students are encouraged to write a thank-you card prior to the trip, send a postcard while in Vatican City, and present a gift at the post-trip gathering. A short video clip is also emailed to the sponsor of their student expressing gratitude while standing in front of a famous sculpture or building. Attending the post-trip gathering also allows sponsors the opportunity to witness the excitement and joy on the faces of their students. To many students, their Rome experience is life-changing, and the opportunity to express this to their sponsor is highly anticipated. This type of interaction between the donors and students has reinforced the strength of all contributors' investments.

## Growth/Future Plans

The plan for the ETSU at Rome Program is for students to be able to complete an entire semester's worth of classes during the summer. It is hoped that in the near future courses can be offered not only that are part of the students' curricula, but also certain other general education courses such as speech and language. Offering general education courses will help to expand the range of students to include more disciplines.

A technology endowment was started by an individual for use specifically in the Technology Department. This endowment was created with an initial gift of \$10,000 and, through contributors, has grown to \$24,000 since the start of the ETSU at Rome Program. Without funding, this program would not be where it is today. Plans to expand the program cannot happen without additional funding and scholarships. Thus, involvement from specific individuals throughout the community and university for financial support is being sought. Enrollment has reached 25 students for the 2011 session, and a waiting list for this session has also been cre-

---

ated. Currently, progress is being made to allow students the opportunity to earn a certificate while studying in Rome. For the 2012 summer session, another professor in the College of Business and Technology is planning to offer a course to 12 MBA students. Additionally, the director of the Roan Scholars Program, a leadership program at ETSU, is working to establish a permanent course offering for four students every year in Rome.

## Conclusion

It is a challenge to create permanent study abroad courses at a regional university. The obstacle of cost and the common feeling among students that living and studying abroad is more of a dream than a reality can cause many good intentions to fail. The ETSU at Rome Program provides a good case study on overcoming common challenges. In short, the key to success starts with funding, and that is the most unique part of this program. Students receive significant scholarships from student fee money and sponsorships from donors in their field. Targeting companies and individuals with ties to the department, interest in the field of study and the ability to access resources is paramount in attaining funding. The donors also feel good about this program. They are afforded the opportunity to meet their students and learn first-hand how they improved their learning experience. This is unique, and one should not underestimate the value of involving donors and clearly demonstrating how they have made a positive difference. Finally, long-lasting partnerships between the students, community leaders and the university are strengthened.

Certainly there are numerous organizations that regional universities can partner with to create opportunities abroad for their students. However, much more can be gained from having a permanent study center abroad. Students, professors, community leaders and others will attain far more success when each is personally invested in a program that is their own. Many of the students who have completed a course with ETSU in Rome have been helped financially to live abroad, been exposed to new learning opportunities, established many new relationships, worked with mentors, attained employment and many other unique benefits. The challenges to creating a permanent study abroad program are many, but the rewards are great. Be assured that a well-thought-out plan and a passion from department and university leaders will allow most institutions to achieve success.

## References

- [1] CRC - Study Abroad - Funding Opportunities. (n.d.). Cosumnes River College. Retrieved September 21, 2010, from [http://www.crc.losrios.edu/Areas\\_of\\_Study/Communication\\_Visual\\_and\\_Performing\\_Arts/Study\\_Abroad/Funding\\_Opportunities.htm](http://www.crc.losrios.edu/Areas_of_Study/Communication_Visual_and_Performing_Arts/Study_Abroad/Funding_Opportunities.htm)
- [2] Funding Study Abroad - International Financial Aid Advice Articles. (2010, September 30). International Student Exchange & Study Abroad Resource Center. Retrieved October 1, 2010, from <http://www.internationalstudent.com/international-financial-aid/funding-study-abroad.shtml>
- [3] Principles & Techniques of Fundraising | Center on Philanthropy. (n.d.). Philanthropic Studies | The Center on Philanthropy at Indiana University. Retrieved September 30, 2010, from <http://www.philanthrop.iupui.edu/thefundraisingschool/CourseDescriptions/principlesfr.aspx>.
- [4] Robinson, B. S. (n.d.). Study Abroad: A 21st Century Perspective - The Impact of Study Abroad on the College Curriculum by Brenda S. Robinson. *American Institute For Foreign Study Foundation - Home*. Retrieved September 18, 2010, from <http://www.aifsfoundation.org/robin.htm>

## Biographies

**JEREMY B. ROSS** received the Bachelor's degree in Architecture from the University of Tennessee, Knoxville, TN, in 1996, and the M.S. degree in Engineering Technology from East Tennessee State University, Johnson City, Tennessee, 2007, respectively. Currently, he is an Assistant Professor in the Engineering Technology Program and an Associate Vice President at East Tennessee State University. Professor Ross may be reached at [rossjb@etsu.edu](mailto:rossjb@etsu.edu)

**DR. KEITH V. JOHNSON** received the B.S. and M.S. degrees in Technology from North Carolina A&T, Greensboro, NC, the M.S. degree in Technology from North Carolina A&T, Greensboro, NC, and the Ph.D. degree in Technology from the Ohio State University, Columbus, OH, respectively. Currently, He is Chairman and a full professor in the Department of Engineering Technology, Surveying and Digital Media at East Tennessee State University. Dr. Johnson may be reached at [johnsonk@etsu.edu](mailto:johnsonk@etsu.edu)

**KEVIN W. VARNEY** received the B.S. degree in Engineering Technology from East Tennessee State University, Johnson City, Tennessee, in 2009, and the M.S. degree in Engineering Technology from East Tennessee State University, Johnson City, Tennessee, 2011, respectively. Currently, he serves as an assistant instructor for the *ETSU at Rome Program* at East Tennessee State University. Mr. Varney may be reached at [zkwv2@goldmail.etsu.edu](mailto:zkwv2@goldmail.etsu.edu)