A Two-Week Study Abroad Class: A New Construction Management Elective

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Many study abroad classes typically provide opportunities for students to travel and learn about different cultures in developed countries. The overwhelming majority of American students study abroad in Western Europe and Australia. However, the cost, duration and timing of these classes, often prevent some students from being able to participate during their undergraduate education. In order to help alleviate these common barriers, two faculty members at Auburn University designed and implemented a two-week study abroad class to Germany and Italy. The class was designed to appeal to students who would not have otherwise considered studying abroad. In order to minimize the cost and curriculum disruption, the program fee was limited to $3,000 (excluding airfare) and the 14 days coincided with the students' academic break between spring and summer semesters. Academic credit was offered as a 3-credit construction management elective class.

Introduction

A typical mission of construction management programs in the United States is to equip graduates with the tools and skills necessary to effectively manage construction projects. The mission is accomplished by providing instruction in areas such as estimating, scheduling, safety, construction law, construction business, building information modeling, project management and structures, focusing on the technical aspects of construction management. In general, this curriculum focuses only on practices necessary to successfully complete projects in the United States. In today's global economy, of which construction plays a large part, it is greatly beneficial for students to be acquainted with foreign cultures and construction techniques. This exposure provides students with critical information essential for a well-rounded educational experience, and in turn, preparing them for a wide range of employment opportunities abroad (Farrow et al 2011).

Study Abroad

The opportunity for students to *study abroad* is a staple of almost every American university, with studies showing the ability of such an experience to effect personal growth and career goals. Chieffo and Griffiths (2004) surveyed over 2,300 students at the University of Delaware that had participated in short-term (i.e., five week long) study abroad programs, and found that students perceived these endeavors as worthwhile to their intellectual and personal lives. Norris and Gillespie (2008) describe a study in which over 3,700 alumni of study abroad programs completed between the years of 1950 to 1999 were surveyed in regards to how study abroad effected their career paths. Results of the survey showed that the "experience enabled a majority of respondents to gain skills that influenced their career path, foreign language ability that they used at work, and interest in a career direction that they pursued."

Construction Management Education & Class Design

The opportunity to study abroad was largely absent from most undergraduate construction management programs of study, until relatively recently (Lu, Connell, Wang, 2009). Moreover, very few constructions students are exposed to foreign building practices, through either classroom instruction or tactile engagement (Farrow et al. 2011). Therefore, two Building Science (BSCI) faculty at Auburn University designed a two-week construction elective, BSCI 5970 Construction Labor, Equipment & Productivity, with the following technical and cultural goals:

- To expose students to companies, projects, practices and construction management professionals beyond the United States.
- Exposure to construction methods, materials, tools, equipment, labor practices and project delivery methods different than those in the United States.
- To expand students' academic, professional and personal views from regional to global.
- Unique aspects of historic preservation and restoration projects.
- View monumental and historic architecture.
- Experience different cultures, languages, currencies and transportation systems.

The final class schedule shown in Figure 1 reflects an intense combination of both technical construction techniques/materials/methods not normally found in the United States and world-class cultural visits in a two-week time frame.

Figure 1. Final class schedule for BSCI 5970 Construction Labor, Equipment & Productivity.

BSCI 5970 - Construction Labor, Equipment & Productivity - Germany & Italy Summer 2019				
Day	**Date**	**Day**	**City**	**Class Activity**
0	4/30/19	Tuesday	Munich	BSCI Professors - class prep.
1	5/1/19	Wednesday	Munich	Students arrive MUC airport & meet BSCI faculty at hotel
2	5/2/19	Thursday	Munich	Class Construction Visit - Seele
3	5/3/19	Friday	Munich	Class Construction Visit - Josef Garner
4	5/4/19	Saturday	Munich	Class cultural visit - BMW Museum
5	5/5/19	Sunday	Munich	Class cultural visit - Dachau Concentration Camp
6	5/6/19	Monday	Munich	Class Construction Visit - Bauer
7	5/7/19	Tuesday	Munich	Class cultural visit - Munich Bike Tour
8	5/8/19	Wednesday	Rome	Travel day: fly from MUC to FCO, check into hotel
9	5/9/19	Thursday	Rome	Class Construction Visit - Metro C line with Trevi
10	5/10/19	Friday	Rome	Class Construction Visit - Trevi Corp. office & mfg. plant, Cesena
11	5/11/19	Saturday	Rome	Class cultural visit - Vatican, St. Peter's, Sistene Chapel Tour
12	5/12/19	Sunday	Rome	Class cultural visit - Colosseum and ancient Rome Tour
13	5/13/19	Monday	Rome	Class free day
14	5/14/19	Tuesday	Rome	Class Construction Visit - Metro C - Owner & Engineering
15	5/15/19	Wednesday	Rome	Students & Faculty depart FCO - arrive in U.S.
16	5/16/19	Thursday	Auburn	First class day of Summer semester 2019

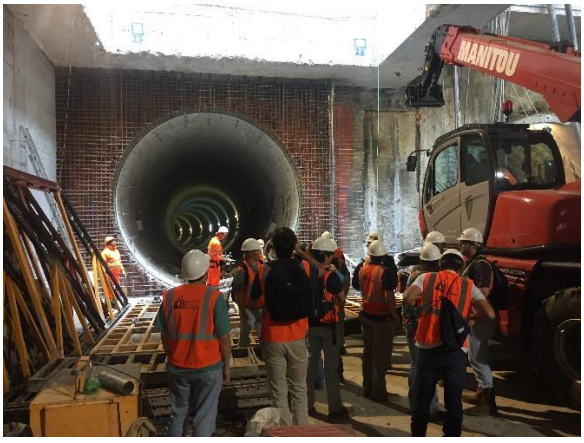
Figure 2. BSCI students and faculty at construction visits and cultural visits.

(a) BSCI Students in Germany

(b) Deep Foundation Drilling Rig

(c) Roman Colosseum

(d) BSCI Students in Germany



(e) Rome Metro C Line

(f) Structural Bracing of Historic Building

Conclusion

Due to the short duration of the trip, the primary value of the experience is derived from exposing the students to other cultures and construction techniques found outside of the United States. The short duration and low cost of the trip made studying abroad accessible to a group of students who would not otherwise been able to do so. The class has also been successful by making students consider expanding

their horizons to overseas study and employment. The overwhelming majority of the participants report a positive experience to the point that many are considering participating in expanded BSCI study abroad classes (6 weeks summer or 8 weeks spring) and possibly working outside of the United States upon graduation.

References

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