Wisconsin In Scotland

Sabbatical Report

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Objectives

The following is a list of the key objectives for this sabbatical.

1. Develop and teach a course called "The History of Engineering and Technology"  
2. Publicize to faculty and staff the opportunities on campus for international programs, particularly the Wisconsin in Scotland (WIS) program  
3. Assess, evaluate and promote the WIS program and serve as a mentor to other faculty and students who wish to participate  
4. Teach courses to UW-System students

Project Outcomes

The following discusses the outcome of each of the objectives listed above.

1) Develop and teach a course called "The History of Engineering and Technology". The course was researched and developed into a series of PowerPoint presentations. Much of the research was carried out on trips to sites of historic import and literally thousands of pictures were taken, as well as quite a few notes. The course was taught to students in the WIS program. It combined engineering material along with historical events to place the innovations and inventors in context. While in Scotland, the course had particular relevance as field trips to James Clerk Maxwell's house (now a museum), the National Museum of Scotland, Urquhart Castle, the Scottish Transportation Museum and other places of historic engineering importance were visited. The quantity of innovations and the Scots who were involved were truly astonishing.

2) Publicize international opportunities. Before the trip, press releases concerning the trip to Scotland were sent (and published) to the Exponent and the UW-Platteville website. A booth during international day was manned by myself, posters were distributed throughout campus, talks were given to freshmen engineering classes, a presentation on the trip was orchestrated, and I discussed the trip arrangements
with many other faculty and students. After the trip, Dr. Robert Schmidt of the Civil and Environmental Engineering Department and myself gave a seminar on our experiences with foreign, cultures. Bob had gone to Peru.

3) **Assess the WIS program.** The WIS program is truly a wonderful opportunity for students, faculty and staff. The program is mainly set up for liberal arts studies, and each course must have a component of Scottish culture. Two of the courses that I taught, Thermodynamics and a History of Engineering, had quite a bit of background in Scotland, and engineering faculty should consider teaching these courses if they should go to Dalkeith.

The advantages of the program are numerous. Students can attend a school in a foreign country where English is spoken, yet there exist significant cultural differences. For example, the Scottish are intensely polite, always thanking the bus driver when departing and saying "please" when ordering at a restaurant. Students can take a full load of classes that are relevant to their degree. History majors would find this program particularly beneficial, since weekly field trips are steeped in historical significance and a course in Scottish history is administered each semester by a Scottish professor. Another advantage is that Patti, the program coordinator in Dalkeith, gives regular lessons on such tasks as how to use the busses for transportation. Also, the students and faculty live, study, play and eat together. While this closeness can cause problems, it also creates an environment that fosters learning. The fact that students can sleep, eat and study all in one palace can be a benefit as well as a detriment. When students first arrive, they are typically cautious and not very confident. Dalkeith Palace is an environment where students can feel safe until they gain confidence.

There are also disadvantages to the program. The two major downfalls to the program involve the palace. It is damp and chilly most of the time, and the faculty bathroom was unheated with a large window that was drafty. The cold curtailed most activities that take place in the winter months. It is advised that future faculty members pick the summer or fall terms. The other problem is with the food. While it is nice that there is a chef in residence and that the faculty and students do not have to cook, the meals that are served are very starchy and heavy with little in the way of vegetables or roughage. I pride myself on always cleaning my plate, but by the end of the semester, there were some meals that I just couldn't stomach. One lunch consisted of a huge baked potato (the biggest baked potato that I had ever seen), but nothing else, not even sour cream. There is also a minor disadvantage to the program. The drinking age in Scotland is only 18, and students do not know how to handle this. On the first day of student arrivals, one girl threw up at the bar (actually, on the bar).

One possible outcome of this sabbatical was the discovery that Edinburgh College has a campus only 10 minutes away from Dalkeith Palace, and they teach engineering courses. This campus is called the Midlothian campus. It may be that students in the WIS program can take engineering courses there.

4) **Teach students.** I taught 3 courses: Statics, Thermodynamics, and History of Engineering. There was nothing special about teaching Statics or Thermodynamics, and History of Engineering was discussed above.
Self-Assessment
The most important achievement of this sabbatical was the development of a course in the history of engineering. There are many courses on the history of science and technology, but there are few that cover engineering topics. This posed a challenge, but Scotland was an ideal place to do research since so many innovations occurred there or were developed by Scots (Alexander Graham Bell and Andrew Carnegie were both native Scots). The field trips with the class were particularly beneficial. The one critique that I have is that I did not have access to a shop of any sort, so I was not able to build models and demonstrate the utility of an arch, for instance. If I were to offer the class again, and I hope that I will have the opportunity to do so some semester, I would incorporate models.

The WIS program was also a great opportunity. Despite the cool, damp living accommodations and starchy diet, the program was well worth it and I would go again. I would advise other professors to seek out this opportunity as well.

My biggest regret was the fact that only a few students from Platteville went. Despite the low cost, English-friendly environment and convenience of learning, the students of Platteville were just not interested. I am unsure of the cause of this reluctance to go on an international program, and I can only surmise that we need to change the culture on campus.

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