Enhancement of the Global Perspective for Engineering Students by Providing an International Experience

Barriers to Students Gaining an International Experience - Summary of Group Discussion

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BARRIERS TO STUDENTS GAINING AN INTERNATIONAL EXPERIENCE – SUMMARY OF GROUP DISCUSSION

Carl J. McHargue and Eleanor Baum

Carl J. McHargue and Eleanor Baum moderated a group discussion of the issues that hinder engineering students from taking advantage of the many opportunities to gain an international experience. Some conclusions are summarized below.

Language Barriers

Many students and faculty in both the United States and abroad feel that English is becoming the international language of commerce and technology. As a result, mastering another language is often perceived as being unnecessary. Indeed, many graduate programs in the United States have dropped the requirement for demonstration of proficiency in foreign languages.

The increasing frequency of offering masters level program in English at some European institutions may be an effective recruitment tools to attract students from abroad, but only reinforces this perception.

This is an issue in Europe as well as other countries. Language proficiency is necessary in the European Union that is composed of 15 countries and requires all official documents to be published in 11 languages.

Economic Barriers

The wide availability of entry-level engineering jobs in recent years has stimulated students to complete the degree requirements as quickly as possible in order to embark on well-paying careers. Few students have been inclined to “waste” a year gaining a global experience. Whereas many international corporate executives cite the advantages of such experiences, few recruiters to campuses and personnel directors reflect this attitude.

The cost to an institution of maintaining student exchange or study-abroad offices and staffs is significant. The students must be monitored and advised while away from the home campus, adding additional costs.

The cost to students that include travel and additional living expenses adds to an already expensive education. In countries where some governmental agency pays the major portion of higher education expenses, there is often a reluctance to pay for study outside the home country.
Institutional Barriers

Engineering curricula are generally very rigid and structured with little flexibility or encouragement for attaining an international experience. The “new” accreditation criteria of the Accreditation Board for Engineering and Technology (ABET) in the United States address the issue to some extent. Several of the required “Outcomes” can be directly demonstrated by students who use an international experience to gain a global perspective. If institutions enthusiastically adopt these criteria, more encouragement of study-abroad may result in the United States.

The transfer of credits across institutional boundaries is a major institutional barrier. Accreditation helps but does not eliminate this barrier. The European Credit Transfer System attempts to provide a basis for student mobility. However, the system related to quantity of study rather than quality. There is still the problem of the varying length of the academic year from country to country. Academic institutions (and employers) place a great emphasis on quality (as measured by grades or examinations) and this issue is difficult to resolve.

Academic calendars generally are not flexible and students run the risk of losing one or more terms by studying abroad.

Although movement towards the new degree systems envisaged by the Sorbonne-Bologna declarations has stated in some European countries, there remains many incompatibilities from country to country.

The practice of engineering requires acknowledgement of qualifications in many countries. The governmental agencies responsible for certifying proficiency may not recognize courses taken ex-country.

Governmental institutional barriers are often significant. Rules on the issuance of visa, work permits, etc. are often restrictive and may require considerable efforts on the part of the student or educational institution.

Social Barriers

The majority of engineering students are males who are much less inclined to want to study abroad than do female students.

Engineering students are often first-generation higher educational students and are not likely to engage in activities that prolong the length of study. In many countries, families pool their resources in order to send one member for such study and the pressures to complete the requirements and return to contribute to support of the family are great.
Many engineering students are from immigrant families and feel that they receive an international perspective from parents and relatives.

International study is perceived as “elitist”. Possession of a college or university degree is still the exception rather than the rule in many countries. Only about one-fourth of the adult population of the United States has the baccalaureate and study abroad is often perceived as a luxury rather than a necessity.

There are concerns about the treatment or welcome extended to some racial or ethnic groups in many countries.

Many of these issues and progress to overcoming them are discussed in detail in papers presented in this conference.