
Listserv Summary: Challenges from Increased Numbers of International Engineering Students

April 2015

An inquiry was made to the listserv regarding challenges in engineering departments associated with hosting increasing numbers of international students who are engineering majors at the same time that budgets are being cut quite drastically. Specifically, the poster asked:

- What are some of the challenges that have arisen in engineering colleges/departments with hosting increasing numbers of international students who are engineering majors?
- What are some of the strategies your engineering faculty have employed in addressing these problems?

Summary of responses:

There were six responses to this inquiry. Overall, the respondents acknowledged that there were challenges in engineering departments, and identified the need for strategies.

What are some of the challenges that have arisen in engineering colleges/departments with hosting increasing numbers of international students who are engineering majors?

- Inadequate preparation in English (2) or mathematics (1)
- Students “were not the best engineering students”
- Advising and getting international students into the right class; often they arrive and started taking classes without advising in the department.
- Using more than their “fair share” of resources, including office hours, advising, and needing more “special help” than non-international students.
- Many international students at one institution have a difficult time securing a required co-op position for the undergraduate engineering program; graduate students have similar struggles finding internships. International students in this respondent’s experience are not as proactive as domestic students making use of career development resources and taking the lead in securing these positions.
- Shortage of classroom space with increased enrollment
- A significant number (disproportionate) of cheating cases this year at one institution involved international students, however, this was more prevalent in other disciplines and engineering not specifically mentioned.

What are some of the strategies your engineering faculty have employed in addressing these problems?

- Enlisting the help of a college advisor, who spent a lot of time and effort trying to help them succeed
- Establishing a formal advising system where one faculty member in the engineering department is responsible for all international students. He holds quarterly meetings and advises on which classes to take, how to enroll, and provides necessary signatures
- Offering one or two free English writing courses to undergraduate and graduate students, and encouraging them to make use of the Writing Center on campus.
- Designating co-op coordinators that can assist international students in securing these positions; inviting career advisors and other speakers in industries to give talks to students.
- Implementing a budget model that ensures an increase in nonresident tuition revenue to the engineering school when international student enrollment increases.
- Recalibrating direct admissions requirements so that more students would have to progress through a undergraduate general college division before admission to the engineering degree was confirmed. In this general college, support systems and academic advising were better calibrated towards students needing to complete core academic requirements prior to admission to academic programs requiring high levels of math/science preparation.