

The Role of Curriculum in Enhancing Diversity in Undergraduate Engineering Programs

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Over the last several years entering classes for medical, business, and law schools have become about half female and much more culturally diverse than in the past. At the same time, engineering schools have become *less* diverse, and this in spite of significant resources dedicated to the problem. Most of the intervention efforts seeking to enhance diversity in engineering schools have focused on social issues and pedagogical approaches. Even those efforts which have succeeded in enhancing diversity in the short term seem to be unable to sustain and institutionalize change without constant attention and influx of resources. This talk examines the role of curricular content in enhancing recruitment and retention of underrepresented groups of engineering undergraduate students. After discussing some of the general issues, such as admissions assumptions and gateway courses, a project to redesign the entire undergraduate curriculum in mechanical engineering will be described. The goal of this work, which involves a group of 8 academic institutions, is to use the curriculum to aid in attracting and retaining a more diverse community of students by minimizing critical path lengths, focusing on the social implications of engineering, and building greater links between curricular topics.