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Paper

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A Two-Semester Freshman Orientation Course Sequence for Retaining Underrepresented Minorities in Engineering

At NC State University, we have developed a student success model that is contributing towards our goal of increasing diversity as it relates to the engineering and computer science professions. We know we are on the right track because our NC State University College of Engineering has been honored twice in the short, four-year history of a national mentoring awards program. In 2000, we received our second Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring.

Refereed paper presentations on our model have been made in recent years at annual conferences of the American Society of Engineering Education, Frontiers in Education, and the International Conference on Engineering Education. A typical cycle for the students we target for recruitment begins during their high school years when they are invited to participate in the NC State University Student Introduction to Engineering (SITE) program. SITE is a weeklong campus resident program designed to expose high school students to engineering and computer science.

All new minority engineering freshmen arriving in the fall are enrolled in START, our student mentoring program. They are also automatically enrolled in our minority-focused Engineering Professional Student Development course.

Our original, unpublished, full conference paper and presentation will focus on our two-semester sequence that contains our Engineering Professional Student Development courses. We will describe the demographics of our student enrollment population, share details of both courses to include topical coverage, professional guests participation, and the impact these courses have on minority engineering and computer science students as they become acclimated to our campus and programs. The paper and presentation end with impact information that includes minority student retention rates and how the sequence complements our general engineering orientation course taken by ALL engineering freshmen.