Female Mentoring Efforts in Chemical Engineering at Tennessee Tech: Collaboration among Students, Faculty, and SWE

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EXTENDED ABSTRACT

The Department of Chemical Engineering at TTU has seen an increase in the number of female students that apply and then register to the program. However, not all these talented students remain in the program. Some of them transfer to other disciples, many by reasons that seem to be misinformation and/or lack of encouragement. In order to increase the retention of our female students and in collaboration with SWE, a formalized female mentoring program has been initiated to insure that more students successfully finish a Chemical Engineering degree. The efforts of upperclassmen, graduate students, and faculty combine to guide freshmen and sophomores through their beginning semesters. The program promotes synergistic effects for everyone in the Department by offering social events, professional development and tutoring as needed. These activities develop not only professional relations but friendships. Historically women enter math and science fields at a lower rate than their male counterparts, and issues affecting retention have been identified to include social isolation, confidence in performance, and concerns about life/work balance. The program structure is designed to address these issues. The support and confidence gained from the mentor groups help women succeed in early academic challenges such as math coursework or inter-gender teams, while helping students build a network of professional relations and friendships. Preliminary feedback from the students seem to indicate that the confidence and knowledge gained from the mentor groups help women succeed in what is becoming a more diverse degree.