

Abstract Submitted
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Polymer-Based Nanocomposites: An Internship Program for Deaf and Hard of Hearing Students¹ PEGGY CEBE, DANIEL CHERDACK, B. SEYHAN INCE-GUNDUZ, ROBERT GUERTIN, TERRY HAAS, Tufts University, REGINA VALLUZZI, Evolved Nanomaterial Sciences — We report on our summer internship program in Polymer-Based Nanocomposites, for deaf and hard of hearing undergraduates who engage in classroom and laboratory research work in polymer physics. The unique attributes of this program are its emphasis on: 1. Teamwork; 2. Performance of a start-to-finish research project; 3. Physics of materials approach; and 4. Diversity. Students of all disability levels have participated in this program, including students who neither hear nor voice. The classroom and laboratory components address the materials chemistry and physics of polymer-based nanocomposites, crystallization and melting of polymers, the interaction of X-rays and light with polymers, mechanical properties of polymers, and the connection between thermal processing, structure, and ultimate properties of polymers. A set of Best Practices is developed for accommodating deaf and hard of hearing students into the laboratory setting. The goal is to bring deaf and hard of hearing students into the larger scientific community as professionals, by providing positive scientific experiences at a formative time in their educational lives.

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