Preparing High School Students for College Biomedical Engineering through Laboratory Technology Activities

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Purpose
The purpose of this article was to present the authors’ experiences in a grant project to prepare high school students for college biomedical engineering.

The Article
This purpose of this project was to explore strategies, methods, and activities that persuade high school students to gain a deeper understanding along with an increased interest in college biomedical engineering. Also, in addition, to develop their future studies and career in the field of biomedical engineering. The authors provided three objectives: 1) to expand the teaching expertise of high school educators in biomedical engineering, 2) to increase student understanding of the biomedical engineering field, and 3) to enhance students’ hands-on experience and scientific interests. The authors provided four activities that consisted of an orientation class for high school educators, biomedical engineering laboratory tours for high school educators and their students, biomedical engineering workshops for high school educators and their students, and a comprehensive summer biomedical engineering camp for high school students. These activities were implemented successfully and the four objectives were effectively achieved.

What this Means for the Field
This project was funded by the US Department of Education and Nevada System of Higher Education. Through this venture the authors provided high school educators and students with conceptual knowledge framework of college biomedical engineering, field experiences, and lab technology activities. It was found that these activities did help in developing high school students’ interests and theoretical knowledge for future study in the biomedical engineering field.

Citation

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