The Minority Introduction to Engineering and Science (MITES) program at MIT is a rigorous, six-week residential program for talented underrepresented high-school juniors interested in pursuing careers in science and engineering. Students in the program study mathematics, physics, humanities and either chemistry, biochemistry or biology. In addition they participate in a hands-on project chosen from robotics, computer programming, electronics, genomics and architecture.

The mathematics component of the program focuses on calculus. Three levels of calculus with topics ranging from pre-calculus to multi-variable calculus are offered. However, the largest group of students study concepts necessary for the fundamental understanding of calculus. MITES prepares these students to approach AP calculus with confidence and provides them with a least a working knowledge of differentiation and integration. This presentation will provide the concepts introduced, as well as the proven pedagogy that has ensured the success of the MITES program since 1975. (Received September 17, 2013)