Symposium on Undergraduate Nano-Education:
"Addressing the Challenges of Nanoscale Science & Engineering Education"

Presentation: Poster: The Nanoscale Manufacturing Curriculum for Advanced Technological Education (NaMCATE), and NSF funded project

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Presenter Biography:

Robert C. Decker is an associate professor in the Engineering Technologies and the Trades Department at Mohawk Valley Community College in Utica, NY. He is co-principal investigator in the NSF-ATE Project "Nanoscale Manufacturing Curriculum for Advanced Technological Education (NAMCATE)" and co-principal investigator in the NSF-CCLI Project "Instructional Laboratory for Visualization & Manipulation of Nanoscale Components for Engineering Technology Students.

Abstract:

The project is developing a set of cutting-edge curriculum materials for high school science and technology education programs that provide opportunities to address important new content and meet the needs of the growing number of community colleges wishing to implement nanotechnology programs. Broader Impacts. NaMCATE aims to significantly advance the capacity of community colleges and high schools to provide instruction in the burgeoning area of nanoscale manufacturing. The project methods and materials are being disseminated through a wide variety of means and sustained by collaborating partners. All project processes, products, collaborative relationships, and outreach efforts are being formally evaluated by an external evaluator. The material is being used by a diverse group of students in the cooperating colleges and universities. The project can introduce high school and community college students and faculty to the methods, applications, and processes of nanomanufacturing and can become a stimulus to the pursuit of further education and careers in this promising field.