

1077-I1-2612      **Sheldon Lee\*** ([shlee@viterbo.edu](mailto:shlee@viterbo.edu)), 900 Viterbo Drive, La Crosse, WI 54601. *Integrating modeling into an introductory programming course.*

Many colleges with small math programs cannot afford to offer courses in numerical analysis, computer science, and modeling. In this talk, I outline a new course that attempts to address all three of these topics in order to fill this gap in the curriculum. In this course, students are introduced to procedural programming in the context of solving mathematical problems, with an emphasis on real-life problems. Students build their repertoire of modeling tools by learning about topics such as matrix algebra and its applications, probability theory, and Monte Carlo simulation. I will discuss some of the challenges of assigning meaningful mathematical modeling projects that are accessible to students with basic programming skills and a Calculus II background. (Received September 22, 2011)