

**Meeting:** 1003, Atlanta, Georgia, SIAMMINI1, SIAM Minisymposium on Undergraduate Linear Algebra and Differential Equations: Projects, Problems, and Issues

1003-97-1020      **Kelly S. Cline\*** (kcline@carroll.edu), Carroll College, Department of Mathematics, 1601 North Benton Avenue, Helena, MT 59625. *Challenging Students with Interdisciplinary Lively Applied Problems.*

At Carroll College we have integrated our linear algebra and differential equations curriculum into two 4-semester hour courses that focus on applied mathematical modeling. Our courses are designed around a set of Interdisciplinary Lively Applied Problems (ILAPs) that were developed as part of Project Intermath, which teach students to work together in small groups and use mathematics to understand and solve problems in fields such as engineering, physics, biology, and business. These courses make strong use of technology, meeting in the computer lab once each week, permitting students to develop intuition about how solutions evolve as problems become large and complex, to explore numerical solutions, and to develop visualization skills. (Received October 02, 2004)