

1086-Q5-1963      **Lisa Rogers\*** ([lrogers@cims.nyu.edu](mailto:lrogers@cims.nyu.edu)), 251 Mercer Street, New York, NY 10012. *Developing a Calculus Course for the Natural and Physical Sciences*. Preliminary report.

I would like to propose a two semester Calculus course sequence aimed towards first and second year natural and physical science students, preparing them for careers in medicine, interdisciplinary research and education. This course sequence will satisfy requirements for Calculus 1 and 2 while developing students' mathematical intuition and computational and research abilities. A typical course period will consist of a brief lecture period for theory introduction and examples, followed by a student discussion period and a lab/problem solving period for practicing execution of techniques learned in the day's lesson. Students will have small research projects involving the analysis, presentation and replication of a mathematical model from a published scientific paper. Students should leave this course sequence with a knowledge of physically realistic model building, analytical and computational techniques for model execution and an ability to effectively communicate their mathematical ideas. (Received September 24, 2012)