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Roosevelt University is a national leader in educating socially conscious citizens for active and dedicated lives as leaders in their professions and their communities. Therefore, we will redesign the Calculus II course (Integral Calculus) to include a civic engagement component.

After successfully completing this course the students will be able to apply Integral Calculus concepts and methods to model "real-world" problems that have a social impact in their community or in the world at large. They will also be able to get answers to specific questions using their model, and they will learn how to use these answers to impact society. Beyond the capacity to solve mathematical problems, they will be able to communicate their findings clearly, both verbally and in writing, and to explain the mathematical reasoning behind their conclusions.

The class will participate in a semester-long group project involving social issues. The students will work in groups of 2 or 3 students. The end result will be a written report and an oral report of their mathematical findings and a plan to disseminate the results to a wider audience. For the projects we will create a partnership with the Education Department at the Shedd Aquarium in Chicago. (Received September 09, 2009)