Timothy Comar* (tcomar@ben.edu), 5700 College RD, Lisle, IL 60532. Developing Computational Skills in Biocalculus Courses. Preliminary report.

The second semester biocalculus course at Benedictine University serves as a hybrid between a second semester calculus course and course designed to prepare students to partake in undergraduate research activities in mathematical biology or other quantitatively oriented areas of the biological sciences. Project activities in this course are designed to integrate mathematics, biology, and the use of computational software to investigate biological models. This presentation will highlight several of the weekly computer laboratory projects and one extended project. The extended project requires students to read original literature, implement a biological mathematical model in a computational platform, prepare a written summary of the mathematics and biology surrounding the particular model, and give an oral presentation of their work. This particular project enables students delve more deeply into a particular model than they can do through a weekly assignment and also develop skills that will be useful in an interdisciplinary research environment. Sample materials from the course will be available in print and online formats. (Received September 08, 2009)