

1014-Z1-363

**Timothy D Comar\*** (tcomar@ben.edu), Department of Mathematics, Benedictine University, 5700 College RD, Lisle, IL 60532. *Computational Tools for a Two-Course Calculus Sequence for Biology Majors.*

In an effort to better prepare research oriented biology majors for the increasing level of mathematical background needed for their future coursework and research, the Department of Mathematics at Benedictine University has begun to offer a rigorous two-semester calculus sequence for this audience. Two important course goals are the integration of mathematical and biological reasoning through the understanding of biological models and the development of skills to use appropriate computational software to analyze and solve biological problems. We discuss how and why we use Excel, Derive, Berkeley Madonna, and MATLAB to achieve these goals. r decision to use these different software products is two-fold: first, students need an easy to use computer algebra system to observe and learn basic calculus phenomena; secondly, the students in this course sequence need to be introduced to computational tools which they will be able to use in their future biology courses and research activities. (Received September 12, 2005)