

1014-Z1-402

Steven M Deckelman* (deckelmans@uwstout.edu), 237 Harvey Hall, University of Wisconsin-Stout, Menomonie, WI 54751. *Bioinformatics and the Undergraduate Mathematics Curriculum*. Preliminary report.

With the advent of the BIO 2010 and Math & BIO 2010 initiatives, a new emphasis is being placed on the inclusion of quantitative methods in college biology curriculum and the interdisciplinary connections between biology and mathematics. An area that has attracted particular excitement is the field of bioinformatics. Bioinformatics has been described as the computational branch of molecular biology, a collection of methods used for analyzing molecular biology data with a computer. Programs in this field are flourishing with an increasing number appearing at the undergraduate level. Although bioinformatics is often described as a computational discipline, it is rich in underlying mathematics. This talk will examine ways in which bioinformatics and mathematics can intersect in the undergraduate classroom. We will address the questions 1.) How can topics in bioinformatics be used as an engine for teaching undergraduate mathematics? 2.) How can bioinformatics be understood as both a source of interesting mathematics and a target for useful mathematical applications? 3.) In what ways is bioinformatics a mathematical problem solving discipline? (Received September 14, 2005)