

1125-J5-1049 **Brian J Birgen*** (brian.birgen@wartburg.edu), 100 Wartburg College, Waverly, IA 50677. *An Alternative First Year Calculus Course: Modeling Calculus.*

Instead of the traditional Differential Calculus, we offer to our incoming college students a numerical based modeling with differential equations course. The students learn Euler's method and slope fields which do not require strong Algebra skills immediately and are analyzing simple population models by the end of the first month. Topics covered in the course include air resistance, rocket motion, bungee jumping, predator-prey, malaria just to name a few. Students are required to read journal articles and replicate their mathematical models.

We will discuss the benefits and pitfalls to such an alternate approach. (Received September 14, 2016)