Professor: Dr. Talitha M. Washington

Contact Info: Office: KC 318; Phone: 488-2213; E-mail: tw65@evansville.edu

Office hours: TBA

Text: Heavily supplemented with other materials from books, journals, and the internet

Course Website: *Blackboard,* http://acebb.evansville.edu

Course Time: Monday 10-11 AM in KC 304

Course Description: MATH 291 Special Topics in Calculus (1): Covers mathematical modeling in biology. We will study differential and difference equations and how they can provide predictive and quantitative insight into problems in biology. Prerequisite: Grade of C- or better in Mathematics 134 or 211.

Course Learning Objectives: The general course goals are to help you:

- Model biological phenomena using difference equations
- Model biological phenomena using the concepts of differential calculus
- Analyze mathematical models

Methods of Instruction: The method of instruction for most classes will be a lecture/discussion. Students are encouraged to participate in class by asking questions, contributing to discussions, and working problems. Outside of class, students are expected to read the assignment, complete all homework, and come to my office hours and ask questions about the homework.

Grading: I will provide you with a number grade on each assignment and on each test, so that you may keep track of your performance. As a guideline, the components will contribute in the following proportion to the final grade:

- Active Participation/Attendance – 50%
- Final Project – 50%

Final grades will be assigned using the following percentages: A 90-100; B 80-89; C 70-79; D 60-69; F 0-59. All grades will be posted and updated regularly on *Blackboard*.

Course requirements and policies:

a. Active Participation Expectations: Each student is expected to contribute to the discussions, read all assignments, and complete ALL work. Please do your share of the work required to keep this communal enterprise going, in whatever roles you feel comfortable taking on (see section below on student roles).

b. Final Project: The final project will involve applications of mathematics to biology. Project teams will consist of ~3 students. Each member is expected to contribute to the preparation and presentation of the projects. Guidelines for the final project will be given out at a later date and will hopefully lead to a publication.

c. Honor Code: It is expected that students are familiar with and will comply with the terms of the University's Academic Honor Code:

I will neither give nor receive unauthorized aid, nor will I tolerate an environment which condones the use of unauthorized aid.

d. Accessibility: Please let me know immediately if you have a learning or physical disability requiring accommodation. For more information, contact the Office of Counseling and Health Education at 488-2663.