BIOL 7050 Experimental Design and Data Analysis Fall 2015

COURSE INFORMATION:

a. Instructor: Dr. Timothy Henkel (tphenkel@valdosta.edu)
b. Office: Bailey Science Center 2212
c. Office Hours: TH 12-1 pm and by appointment
d. Class Meets: TTH 8-9:15 am Bailey 1202

CATALOG DESCRIPTION:

BIOL 7050 Experimental Design and Data Analysis in the Biological Sciences
Prerequisites: MATH 2620 or comparable course and admission into the graduate program or permission of the instructor. Application of statistical methods to the study of biological problems, with an emphasis on the interaction between the choice of statistical methods and experimental design.

GENERAL COURSE DESCRIPTION:

This course examines the principles of experimental design, including hypothesis formation and testing, replication, data collection, analysis, and presentation. The course will provide a framework for developing new projects using appropriate statistical models as well as a toolset for evaluating methods used in biological literature.

REQUIRED TEXT: A Primer of Ecological Statistics (2ND edition; 2013) by Nicholas J. Gotelli and Aaron M. Ellison (1ST edition text will work for the most of the course).

REFERENCE TEXTS (These will be used during in class discussions)

- Biometry (3rd edition; 1995) by Robert R. Sokal and F. James Rohlf
- Biostatistical Analysis (4th edition; 1999) by Jerrold H. Zar
- Primary literature used throughout the semester

GRADES: There will be two exams during the semester, a midterm and final, as well as a set of assignments. ET EMC exams during the semester

ACADEMIC HONESTY: As a graduate student, you are expected to only submit work that you have personally completed. Any evidence that your work is not your own will result in failing the course and follow up with the Graduate School. You are responsible for knowing, understanding and complying with