Prerequisite: A passing score on the entry Level Mathematics Exam or Math 105.

Text: *Biostatistics for the Biological and Health Sciences* by Triola and Triola.

Course Description from the Course Catalog: Critical reasoning using a quantitative and statistical problem-solving approach to solve real-world problems. Uses probability and statistics to describe and analyze biological data collected from laboratory or field experiments. Course will cover descriptions of sample data, probability and empirical data distributions, sampling techniques, estimation and hypothesis testing, ANOVA, and correlation and regression analysis. Students will use standard statistical software to analyze real world and simulated data.

Grading: Grades will be determined as follows:

- Attendance/Quizzes (5%)
- Homework (15%)
- Two Exams (20% each)
- Final Exam (40%)

Attendance and Quizzes: Since we meet only twice a week, attendance is essential. After three absences, you will lose one percentage point from your attendance grade for each subsequent absence. The quizzes will be based on material covered in previous lectures or homework. Although these will be unannounced, they will be treated as a means to gauge your progress in learning the material, as well as a chance to interact with your classmates (and instructor) in the classroom. In other words, you will have no reason to “fear” the quizzes!
**Homework:** I will assign homework daily to be turned in on every Monday (unless otherwise stated) at the beginning of lecture. Make sure that your presentations are well-organised. If you use more than one sheet of paper, please write your name at the top of each sheet, and be sure to staple them all together. This will make my job to grade them much easier. If you make a clear and sincere effort to try to answer every question on these assignments, you will automatically receive 50% of the assignment’s grade. You are highly encouraged to work with others on these assignments. If so, be sure that you can do these problems by yourself, too.

**Computer Information and Math 399:** We will use a combination of SPSS statistical software and MS Excel on the computer systems in the lab. As you will be using this in some of your homework, please sign up for Math 399 Section 2. Further Excel and SPSS instructions will be given in the lab.

**Exams:** The two exams will be given in class around the sixth and twelfth weeks of lecture. The final exam will take place on Wednesday 13 May at 4:00 PM. Unless you have a genuine doctor’s note, you have to take the exams when they are given.

**Extra Help:** In addition to myself and your fellow classmates, please check out the Learning Resource Center (in the Broome Library). This center’s math tutors will be happy to help you!

**General Education Information:** This course satisfies a ‘B3’ General Education requirement. As a reminder, General Education courses are intended:

- To foster an ability to think clearly and logically;
- To prepare students to find and critically examine information;
- To communicate at an appropriate level in both oral and written forms;
- To acquaint students with the physical universe and its life forms and to impart an understanding of scientific methodology and of mathematical concepts and quantitative reasoning;
- To cultivate through the study of philosophy, literature, languages, and the arts-intellect, imagination, sensibility, and sensitivity;
• To deal with human social, political, and economic institutions and their historical backgrounds, with human behavior and the principles of social interaction; and
• To integrate their knowledge by forming an interdisciplinary and insightful approach to learning.

Learning Outcomes: Through this course, students will be able to

• Apply quantitative problem-solving skills to biological problems and issues.
• Select, apply, and interpret descriptive statistics in an appropriate fashion.
• Select, apply, and interpret hypothesis testing methods in an appropriate fashion.
• Reason both inductively and deductively with quantitative information and data.
• Use statistical software to conduct complex statistical analysis of real-world and simulated data.
• Write the results of a statistical study in a lab report.

Academic Honesty: Cheating and plagiarism will not be tolerated in this class. For information on the University’s policy, please read the University Catalog (“Policies and Regulations” section).

Disability Statement: Cal State Channel Islands is committed to equal educational opportunities for qualified students with disabilities in compliance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990. The mission of Disability Accommodation Services is to assist students with disabilities to realize their academic and personal potential. Students with physical, learning, or other disabilities are encouraged to contact the Disability Accommodation Services office at (805) 437-8510 for personal assistance and accommodations.

Disclaimer Statement: Information contained within this syllabus, other than that mandated by the University, may be subject to change with advance notice, as deemed appropriate by the instructor.