

STAT 250 INTRODUCTION TO BIOSTATISTICS

“This course will cover statistical analysis and interpretation of data in the biological sciences; probability; distributions and statistical inference for one- and two-sample problems.” 3 credits

Prerequisite: 3 credits in mathematics

Objectives:

In this course you will gain problem solving skills that will allow you to decide for yourself if research involving data is trustworthy or not. Mathematical calculations are necessary but more important is interpreting the values computed. At the end of the semester you will be able to organize data using numerical and graphical summaries, collect data without bias or diagnose bias in collected data, apply properties to data based on the distribution that it follows, make calculations that prove or disprove a hypothesis, interpret the trend in new data compared to a previous standard and diagnose the trustworthiness of inference.

Faculty Contact:

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TA information:

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301 Thomas
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Office hours:
MF 2:00 - 3:00 pm
and by appointment at other times

Office hours:
Thursday 10-12 pm

Materials:

Textbook: Marcello Pagano and Kimberlee Gauvreau's *Principles of Biostatistics* Second Edition, Duxbury.

Calculator: Any kind that can compute a square root (graphing ok)– cell phones prohibited in exams.

Computer: One day each week (Wednesday) you will have the use of a computer in class (lab). You will need to access ANGEL regularly for all course information.

Web Page: <https://cms.psu.edu> -- VERY IMPORTANT

- Please send **ALL** course-related e-mail via “In-Touch” tab in ANGEL
- You are responsible for reading the appropriate sections of the book prior to lecture. (see course calendar)
- All Homework, Labs, Data, Grades and Solutions will be posted on ANGEL.
- Check course calendar regularly to keep up with the pace of this course.

Course Policies:

Lectures, and Lab activities will be posted in a timely manner on ANGEL. I encourage you to print out and review each lecture before it is presented in class, bringing a printout to the lecture to assist you in following along.

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Academic Integrity:

You are expected to complete all your own work in a collaborative setting. Please remember that copying anyone else's work is considered cheating. As a reminder, the University has a policy on academic honesty. You are expected to abide by the procedures set forth in the University's document at <http://www.psu.edu/dept/ufs/policies/47-00.html#49-20>.

All Penn State and Eberly College of Science policies regarding academic integrity apply to this course. See <http://www.science.psu.edu/academic/Integrity/index.html> for details. Violations of academic integrity will be not be condoned in this course and will be punished harshly.

Evaluation:

	Percent
Homeworks (drop 2 lowest)	20%
Lab Quizzes (drop 2 lowest)	15%
Unit Exams	30%
Final Exam	20%
Project	15%
Total	100%

- The homework will consist of problems from the textbook and will be collected in class on the assigned due date. Anything turned in after the beginning of class is late and will be graded for half credit. Late assignments will be accepted from the due time until the end of the next class on Monday. Documented extenuating circumstances will be considered.
- A brief 10 question quiz taken through ANGEL in lab on Wednesdays. Lab quizzes are to be taken during the scheduled lab time, in the lab classroom, only. Late or missed lab quizzes, and those taken outside the lab classroom will be scored as a zero except for those who has permission from TA who conducts the lab. The permission will be given only if the students attend the lab but cannot finish it during class. When taking each quiz on ANGEL, be sure to only press the SUBMIT button when you are completely finished taking the quiz. Lab quizzes are open notes, book, and open for discussion among classmates.
- There will be four unit exams during the semester. Exams may be made up only with a documented extenuating circumstance for up to one week after the original exam time. If you know ahead of time that you will miss the exam, you must notify us prior to the exam and you may take the exam early, but not later than the original scheduled time. Note that You will not be able to negotiate missed exams at the end of the semester.
- The final will be comprehensive.
- Projects must be turned in on the due date, at the beginning of class. Late projects are not accepted.
- In addition, there may also be other opportunities for extra credit as well.

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From the day that any graded material is returned to you, you have two class periods to bring any errors in grading to my attention in writing. So please review any graded materials upon receiving them. Also, note that I reserve the right to adjust final grades based on overall effort.

Tentative Grading Scale:

93%	A
90%	A -
87%	B +
83%	B
80%	B -
77%	C +
70%	C
60%	D
Below 60%	F