

STA 290: Introduction to Probability and Statistical Inference, 3 credits

Prerequisite: MAT 291, and at least concurrent registration in MAT 292, or equivalent courses, or permission of instructor

Textbook (Required):

***Statistics for the Sciences*, by Buntinas and Funk, Thompson Publishing, ISBN: 0-534-38774-8**

Topics to be covered

We will attempt to cover Chapters 1-5, 7-13 and 15. Statistical package MINITAB will be used throughout the course. Some of the topics will require knowledge of Calculus I and II. Specific topics to be covered include:

Descriptive statistics; Basic probability laws; Standard discrete and continuous probability models such as binomial, hypergeometric, geometric, normal, gamma and beta; Central limit theorem; Introduction to hypothesis testing and confidence intervals; Basic correlation and regression.

Course Objectives

After completing this course, you should be able to

- **Understand basic diagnostic tools to weed out outliers.**
- **Calculate probabilities of events using basic probability laws.**
- **Use discrete and continuous probability distributions to model random processes.**
- **Understand some important sampling distributions**
- **Use sample estimates to make valid inferences regarding population parameters.**

Grades

Grades will be based on the following components.

Homework Assignments/Computer Projects, Two Midterm Exams, Final Exam.

Grading Scale

90 and above	A+, A, or A-
80 – 89	B-, B or B+
70 – 79	C-, C or C+
60-69	D or D+
Less than 60	F

A slight variation to this rule may be possible based on class averages.

Attendance Policy

You are expected to attend all classes but there is no formal attendance policy. You will be responsible for knowing the material covered during any lecture you happen to miss. Also, you will be responsible for knowing any announcements that might be made in any class regarding exam schedules etc.

Use of Blackboard

Assignments and all major announcements will be posted on the blackboard site for the course. Make a habit of checking the site regularly. You will need to activate your UNCG computer account to be able to visit the blackboard website (<https://blackboard.uncg.edu>).

Academic Integrity

Students are encouraged to discuss with others solutions to assignments, but each student is expected to write-up his or her solutions independently. Copying other people's work is plagiarism and is an Honor Code violation. You are responsible for knowing and abiding by the UNCG Academic Integrity Policy (<http://sa.uncg.edu/handbook/academic-integrity-policy/>)

Disabilities

If you have a documented disability and wish to discuss academic accommodations, please contact me as soon as possible.