

## **STA 271: Fundamental Concepts of Statistics, 3 credits**

**Prerequisite: MAT 150 or STA 108**

### ***Textbook***

**Required: *Introduction to the Practice of Statistics* by David Moore, Freeman, 5th edition.**

### ***Topics to be covered***

**We will cover most of the important topics from Chapters 1 - 12, and selected topics from some of the other chapters. Although the computer package MINITAB will be integrated in all of the topics covered in the course, some of the more advanced topics such Regression Analysis and multi-sample comparisons will depend more heavily on MINITAB. Students will also be exposed to another software package SPSS. Major topics to be covered include:**

**Data cleaning methods, Graphs and other descriptive measures, simple linear regression and correlation, data collection techniques, basic probability and probability models, point and interval estimation, tests of statistical significance, analysis of variance, use of statistical software(s).**

**This course will provide an appropriate preparation for more advanced statistics courses in any discipline**

### ***Course Objectives***

**After successfully completing this course, you should be able to**

- 1. Understand various data collection, data cleaning techniques, data organization and data presentation techniques.**
- 2. Understand the concept of probability and its simple laws.**
- 3. Understand the distinction between discrete and continuous probability models.**
- 4. Understand the statistical significance of evidence present in variety of data.**
- 5. Have good understanding of multi-sample comparisons.**
- 6. Have some knowledge of relationship between random variables.**

### ***Grades***

**Grades will be based on the following components.**

**Homework Assignments/Computer Assignments, Two Midterm Exams, One Final Exam.**

### ***Grading Scale***

<b>90 and above</b>	<b>A- , A or A+</b>
<b>80 – 89</b>	<b>B-, B or B+</b>
<b>70 – 79</b>	<b>C-, C or C+</b>
<b>60 – 69</b>	<b>D-, D or D+</b>
<b>Below 60</b>	<b>F</b>

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

### ***Attendance Policy***

**There is no formal attendance policy but you are expected to attend all classes. Research shows that regular class attendance is positively correlated with higher grades. 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 made in 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 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 Honor Code](#).**

### ***Disabilities***

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