Instructor: Dr. Dargan Frierson (**frierson@uncw.edu**)
Office: Bear 215
Phone: (910)-962-3290
Office Hours: 11-12 MWF; Other hours by appointment
Textbook (required): **1.** Exploring the Practice of Statistics (1st edition) by Moore, McCabe, and Craig & Stats Portal Access Card
or
2. Stats Portal for Moore, McCabe & Craig including Exploring the Practice of Statistics ebook

Statistics is an important subject in today's world. Not only are students of the sciences expected to understand and be able to interpret the results of standard statistical techniques, but every day all of us read about political polls, medical experiments, new drugs appearing on the market, etc., etc., etc. This course is designed to teach you how statistics is practiced today so you will be able to understand the ideas discussed in these articles and those techniques used in the sciences. You will become knowledgeable of the terminology of statistics and be able to analyze data and interpret the results in many different contexts. We will be introducing computing assignments to help your understanding of statistics by teaching you to use a standard statistical software program to analyze homework data and to reinforce the concepts learned during the lectures and from the text.

It is very important that you keep up with the material. I expect you to buy the textbook and read the sections as they are assigned and work on the problems assigned for homework, so that when you come to class, you will be prepared to discuss the readings and problems, participate in the activities, ask questions, and generally contribute to the class in an intelligent manner. You'll be using a calculator during most classes and the computer on other days. I suggest you bring a TI-83 (or better) to class each day and that you learn to use the statistical functions on it. We will also be using the statistical software program called JMP just about every day, certainly on Fridays when we meet in BR 161. JMP (from SAS in Cary, NC) is an excellent menu-driven program that will do all of the computing and graphing that we'll need for this semester. I expect you to learn how it works and use it for assignments. It will be available on computers in our lab (BR 161) and around campus too. If you have your own personal computer, I'll be giving you specific instructions on how to install it and use it.

Grading:

There will be two tests, a required final comprehensive exam, and several short quizzes and other written assignments covering the problems you've worked for homework, the content of the lectures and computing assignments, and the readings from the textbook. I will average your scores on the above and determine your course grade using a 10-point scale (90-100% = A, etc.). I will use +/- as appropriate for those grades "close" to the end points of the intervals (I don't know what "close" is until the end of the semester). The quizzes and homeworks will be pooled into one grade and each of the tests and the final exam will be weighted equally with that grade for a total of 4 scores to be averaged. If you do exceptionally well on the final exam (so that it would increase your average if counted twice), I will double it and average the 5 scores to determine your course grade.

General Remarks:

1. I don't give make-up tests, but talk with me before a scheduled test about a medical or personal emergency you might have. Test #1 will cover roughly Chapters 1-4 and Test #2 will cover Chapters 5-8 . The remaining sections we cover will be tested on the final exam along with the earlier material. (The above testing schedule is subject to change so be sure to keep up with where we are in the class ...).

2. It is vitally important to your success in this class that you keep up with the reading and the homework as we progress through it. Material at the end of the course is heavily dependent upon what we study at the beginning of the course. You should spend at least 1-3 hours per day, every day, reading the text, reviewing your notes from class, working problems, using the computer software, discussing the material with others, and thinking about the concepts of elementary statistics. I firmly believe that this regular study time is much more beneficial to your understanding of statistics than an average of 10 hours or so per week. I really believe this much time is required since for most of you the ideas presented are new and different (and some might even say difficult). But it has been my experience that students who put in quality time and effort can be successful. Please discuss with me early any difficulties you are having understanding the basic concepts. Catch me after class or call me at 962-3290 to make an appointment. You can also contact me via e-mail at **frierson@uncw.edu** (this is the preferable way…)

3. The University Learning Center (ULC) usually sponsors group studying sessions for STT 215 students – I will let you know more about this as they announce the schedule for this fall.

The Goals and Student Learning Objectives for STT 215 that have been approved by the University Studies Committee are given below.

Goals: The purpose of STT 215 is to introduce the basic concepts of descriptive and inferential statistics. The primary goal of the course is to teach statistical thinking by: (i) recognizing that data is required to answer questions and make decisions in the sciences and social sciences; (ii) learning that data collected through properly designed experimentation and sampling is far superior to that collected with non-statistical methods; (iii) understanding that variability in data can be characterized through proper graphical and numerical analyses and contextual interpretations; (iv) using technology to greatly simplify analyses and simulate modeled variables; (v) utilizing the logical reasoning inherent in significance testing and confidence interval estimation.

Course Student Learning Objectives: Upon completing STT 215, students should be able to:

- describe the variability inherent in univariate and bivariate data in numerical, graphical and written form;
- explain the role randomization plays in designed experiments and in standard sampling methods;
- compute and interpret probabilities of events in everyday random phenomena and of common sampling distributions;

- compute and interpret confidence intervals in one- and two-sample cases;
- conduct tests of hypotheses in one- and two-sample cases and in two-way tables, interpreting the results utilizing p-values;
- utilize technology to perform all but the simplest analyses and simulations;

5. I vigorously support and uphold the University's Academic Honor Code: *The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the university community are encouraged to report occurrences of dishonesty, each individual is principally responsible for his or her own honesty.* (See the UNCW Student Handbook and Code of Student Life for all the details).

6. I will place some notes and handouts to enhance STT 215 on my website (**http://people.uncw.edu/frierson/**) under "Teaching". There is also plenty of online material at the StatsPortal website. You are required to purchase access to StatsPortal for this course. StatsPortal is an online learning space that integrates an interactive eBook, instructional videos, tutorials, homework problems, quizzes, and a number of other study aids. **If you have purchased either a package of the StatsPortal Access Card and your new textbook or the Access Card alone, please follow the instructions below to register for this course:**
a.) Point your browsers to http://courses.bfwpub.com/eps.php (If you are a Mac user, you will need to use Firefox – Safari and Chrome don't work. Ask me if you need help installing Firefox on your Mac).
b.) Click on the link "REGISTER AN ACTIVATION CODE."
c.) You will be prompted to follow the on-screen instructions to find your course. You will start by selecting the state (NC), the school name (UNC Wilmington), then your instructor (Dargan Frierson), course (Introduction to Statistics), and section.
d.) You will enter the activation code (found in your Access Card). You will also be asked to enter your UNCW email address, choose a password and you will be ready to go! If you have any trouble during the registration process, please call **1-800-936-6899** or email the publisher at **techsupport@bfwpub.com**

If you need to purchase the access via the publisher's website, you may do this from the same link above, just choose "Purchase access to Stats Portal" and follow the directions as above.

*** For additional help on signing up and using the Stats Portal see the information about the Portal and the Student User's Guide on my website – Here where you can find the links:

http://people.uncw.edu/frierson/s215.htm

I expect that by the time you've finished this class, you will have learned a great deal about statistics. Some of that learning will come from reading and interacting with the textbook and from our classroom discussions about your questions and concerns; and a

lot will come from your working through the homework exercises and our discussions of them. But the process of learning to "think statistically" is an important objective of this course that I don't believe can be completely understood through the above methods. You must actually do statistics through analysis of data and through writing about the results of the analyses. Be prepared to do some writing on tests, quizzes and homework to show that you understand the concepts we are studying!