

<b>STATISTICS 1100 SEC. 11-20</b> <b>FALL 2012</b> <b>MWF 9:00-9:50 ROOM: PB 36</b>	<b>STATISTICS 1100 SEC. 21-30</b> <b>FALL 2012</b> <b>MWF 1:00-1:50 ROOM: PB-36</b>
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**Instructor: Kathleen McLaughlin**

**Overview:** In this course we will take a critical look at data: how can we organize, analyze and interpret data, how can we use data to make decisions, what role does randomness play in our decision making? I like to divide the course into 4 major components:

1. **Descriptive Statistics:** We begin by taking raw data (univariate and bivariate) and organizing it into useful graphical displays. Next, we summarize the data numerically using measures of central tendency, measures of variation and linear regression.
2. **Data Collection Designs:** We discuss different techniques for collecting data, selecting samples and designing questionnaires. We compare observational studies to randomized experiments and discuss the advantages and disadvantages of each these two methods of data collection.
3. **Probability:** We discuss basic probability theory using tree diagrams and Venn Diagrams. We look at discrete and continuous probability models that are used in statistical analyses.
4. **Statistical Inference:** In this last section, we look at confidence intervals and hypothesis tests for one- and two-sample situations.

**Office Hours:** MWF 10:45 – 12:15 CLAS321

If those times are not convenient for you, please see me and I can arrange to meet with you at other more convenient times.

**E-mail:** You can contact me using [Kathleen.McLaughlin@uconn.edu](mailto:Kathleen.McLaughlin@uconn.edu). You can also use the Mail My Professor option within HuskyCT.

Your TA will maintain a separate HuskyCT site for your Discussion section. He/she will give you details about that when you meet with him/her. Discussion sections will start on Tuesday September 4, 2012.

### COURSE MATERIALS

**Text, Class Notes and Web-Assign:** This is a bundled package that includes: Utts and Heckard, Mind on Statistics, 4<sup>th</sup> ed. custom printed for UConn, a Notebook that contains all the Overhead Slides used in the lecture and the Access code for the On-Line homework in Web-Assign. Note: You can also purchase this bundled package with the Utts textbook as an e-book (rather than a soft cover textbook).

**COMPUTER MANUAL:** McLaughlin, Wakefield, An Introduction to Data Analysis Using MINITAB for Windows, 4th edition.

**CALCULATOR:** I recommend the TI-83 or TI-84 Graphing Calculator. You may also use the TI-89 or the TINspire. Note: If you do not own one of these calculators, please see me.

## SYLLABUS

### Exam Schedule:

Wednesday, September 26	Exam #1
Wednesday, October 24	Exam #2
Friday, November 16	Exam #3
Wednesday, December 12	Final Exam

Final assessment week for fall 2012 takes place from Monday, December 10th through Sunday, December 16th. Students are required to be available for their exam and/or complete an assessment during the time stated in the Registrar's Office Schedule. If you have a conflict with this time you must visit the Office of Student Services and Advocacy to discuss the possibility of rescheduling this assessment.

**\*\*NEW THIS YEAR\*\*** OSSA is REQUIRING that students who have a conflict about which they have or should have had advanced notice (bunched, religious obligation, legal/medical appointments...) MUST seek permission to reschedule their assessment NO LATER THAN November 30<sup>th</sup>.

Please note that vacations, previously purchased tickets or reservations, graduations, social events, misreading the assessment schedule and over-sleeping are not viable excuses for missing a final assessment. If you think that your situation warrants permission to reschedule, please contact the Office of Student Services and Advocacy (2<sup>nd</sup> floor Wilbur Cross) to meet with a staff member.

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### STUDENT INFORMATION:

1. Exams will cover material from text, supplementary readings, lectures, Discussion Section assignments, homework assignments and MINITAB assignments. If you are unable to be present on an exam date, you must notify me **on or before** the exam date to arrange a Make-Up Exam.

**MAKE-UP EXAMS WILL NOT USE THE MULTIPLE CHOICE FORMAT.**

2. **MINITAB Computer Assignments:** We will be doing Chapters 1 – 9 and 11 in the MINITAB Manual. (Note: You can also do Chapter 10 as an Extra Credit assignment.)

Each Chapter presents a new set of MINITAB instructions. I suggest that you read through the chapter and follow the instructions in MINITAB to learn the techniques for that particular chapter. At the end of the Chapter there is an **assignment**. Complete the **assignment**. **Be sure to include all graphs that are required.** The easiest way to include the graphs is to copy and paste the graphs into a Word document. You can then shrink the graphs so that you can fit two or three graphs on one page. **Note: Your TA will assign a specific version of the data files in the MINITAB assignments to be used in your discussion section.**

Each computer assignment is worth 10 points.

YOUR TA CANNOT ACCEPT ASSIGNMENTS LATER THAN ONE WEEK BEYOND THEIR DUE DATES. THESE ASSIGNMENTS MUST BE HANDED DIRECTLY TO ME. We will accept a maximum of two late Minitab assignments.

**3. Homework Assignments:** We will be using the On-Line homework system that accompanies the textbook. In your bundled package of materials (Textbook, Notebook and Web-Assign) you will have an Access Code to the Website (WebAssign) for the Homework. When registering for WebAssign, use your **NetID** for the UserID and use **stat** for the Password. For example, if your NetID is kmm00001 then your User ID will be kmm00001 and your Password will be stat. Each assignment will be worth 5 points. You can do an assignment as many times as you would like so that you can always earn a perfect score.

**4. Discussion Worksheets and Lecture Worksheets:** In your Discussion Section and in some Lectures you will work on Worksheets that relate to the material that is presented in Lecture. These worksheets will be available to you thru HuskyCT. Worksheets that you will use in your Discussion sections will be available in the Disc. Section Husky site; worksheets that will be used in lecture will be available in the HuskyCT site for the lecture. Each worksheet is worth 5 points.

### **5. Course Grade**

Exams 1, 2 and 3 are each worth 17% of your final grade; MINITAB, homework assignments, Discussion and Lecture Worksheets combined are worth 25% of your final grade and the Final Exam is worth 24% of your final grade.

In the past, students have asked if there were any extra-credit assignments for this course and I did not have any. So, this semester I am including an **Optional Project**. The idea of the project is to give you an opportunity to work with a real data set. If you choose to do this optional project, I will recalculate your Course Grade in the following way:

Exams 1, 2 and 3 are worth 12% each and the Extra-Credit Project is worth 15% of your final grade; MINITAB, homework assignments and Discussion and Lecture Worksheets combined are worth 25% of your final grade and the Final Exam is worth 24% of your final grade.

**6. Use of HuskyCT:** HuskyCT will be used throughout the course. I will maintain a main site for the lecture. Your TA will maintain a site for your Discussion Section. **It is your responsibility to check both sites for assignments.** Your TA will explain how he/she will be using the Discussion section site. Here is the information that will be available to you in the lecture site:

- a.) **Syllabus:** You will see a Syllabus icon on the Homepage. If you click on that, you can access this syllabus.
- b.) **Weekly Schedule:** I will maintain a weekly schedule that I will post in Husky CT. This will show you exactly what we are covering during that week and also what you are required to do (On-Line homework, Minitab assignments, Textbook reading and supplemental reading.) To view this weekly information, click on the **Syllabus Learning Module** on the Homepage and then click on the specific week in the Table of Contents.
- c.) **Audio Files:** Prior to each exam I will post an Audio file that you can use as you prepare for the exam.

- d.) **Grades:** We will be posting all your grades in HuskyCT. This includes Test Grades and HW grades (in the main Lecture site), Minitab Grades and Lecture Worksheet and Discussion Worksheet Grades (in the Discussion section site). It is your responsibility to confirm these grades. Please let us know as soon as possible if there are any discrepancies. All grades posted by mid-semester (October 29th) must be confirmed and changes must be made at that point. All grades for the second half of the course must be confirmed and changes must be made by December 7th.

## Stat 1100 Optional Project

Overview: The purpose of the project is to give you an opportunity to see what it is like to actually collect data and analyze it.

If you choose to do this optional project, refer to the grading system described above in the syllabus to see how this project will be incorporated into your grade.

I will post the details of the project in HuskyCT.