Introduction to Applied Statistics
STA2122

Sections: **17** and **19**
Term: **Spring Semester 2014**
Department: **Statistics**
Credit: **3 Hours**
Meeting: **Tue and Thur 3:35 to 4:50PM in OSB 108** (sec. 17)
　　　　　Tue and Thur 5:15 to 6:30PM in OSB 108 (sec. 19)
Instructor: **Thomas F. P. Wiesen**
Office: **OSB 201G** (please enter through the Wilcoxon library)
Office Hours: **Wed & Thur 2:00 to 3:00PM or by appointment**
Email: **Twiesen@stat.fsu.edu**

Class Details

Textbook and Materials:
The Basic Practice of Statistics 6th edition by Moore

　　　This Textbook is required for class as homework will often be problems from the book. I also reserve the right to assign reading from the book as homework. The first homework assignment will be assigned two weeks into the class so you have until then to purchase/rent the textbook. Although you should perchance/rent the book, you will rarely need to bring it to class.

　　　Please bring paper (or some type of notebook), a writing instrument, and a scientific calculator to every class. Most lectures will have a lecture packet associated with it. I will typically post the lecture packet a day in advance and you are expected to print it out and bring it to class. Students will need a scientific calculator on the exams and quizzes! Sharing calculators will NOT be allowed. There is no need for a graphing calculator or anything programmable. You will NOT be able to use your cell phone as a calculator on the exams and quizzes.

Course Content
　　　Basic statistical definitions: population, sample, parameter, statistic, individuals, observations, variable - including definitions of categorical/quantitative variables, distribution. Graphs: bar chart, pie chart, histogram, stem & leaf plot. Summary Statistics: mean, median, quartiles, range, inner quartile range, variance, standard deviation, z-score, boxplot. Normal Distributions: percentage of data problems. Simple Random Sampling & Central Limit Theorem: we discuss percentage of data or probability. One-sample inference: one-sample z-interval, one-sample t-interval, one-sample z-test, one-sample t-test, interpreting the P-value (left, right and two-sided P-value approach hypothesis tests).

Correlation & Simple Linear Regression. Introduction to Multiple Linear Regression:
Regression Inference, variable selection. One-way ANOVA*. Chi-square Tests*:
goodness-of-fit tests* and tests of independence*. Two-sample inference.*
*time permitting

Course Details according to Blackboard

Subsequent credit for STA 5126 is not permitted. No credit is given for STA 2122 if
a "C-" or better is earned in STA 2171, STA 3032, or QMB 3200. Only two credit hours are
given for STA 2122 if a "C-" or better was previously earned in STA 2023 or STA 3014.
The course covers data collection, sample variation, basic probability, confidence intervals,
hypothesis testing, analysis of variance, contingency tables, correlation, and regression.
MAC1105 (College Algebra) is a prerequisite for this class.

Grades

The class will be out of a total of 1000 points and will be divided up by homework
assignments (20%), one midterm (20%), cumulative quizzes (27%), and one cumulative
final examination (33%). See the class calendar for more details on how the points will be
divided up amongst the homework, midterm exam, quizzes, and final examination.

Everything except the homework will be cumulative. This way, by the end of the
semester you will not be "rusty" with the material taught in the beginning of the semester;
instead you will be experts because you have seen it so many times. This technique has
worked well in prior semesters of when I have taught this course.

Grade Distributions by Points Earned. These are minimum scores and if need be, I
will introduce a "curve." The curve will consist of lowering the minimum score required for
a particular grade. For instance, a typical curve may consist of making the minimum score
for an "A" 920 instead of 930. However, you should in no way depend on the curve for
your grade because the curve is NOT guaranteed, and if I do implement it, it may be very
small. All students should take all exams and quizzes. I will not drop any grades of any
assessments. All questions regarding grades will be directed to this section in the syllabus.

1000-930	A		769-730	C
929-900	A-		729-700	C-
899-870	B+		699-670	D+
869-830	B		669-630	D
829-800	B-		629-600	D-
799-770	C+		599-0	F

Class Policies

Attendance

According to FSU policies all students must attend the first day of class. If they miss the first day of class they risk being dropped from the course. Attendance after that is not mandatory; however I may from time to time take give extra credit attendance for the purpose of encouraging class attendance. That being said, missing a lecture is still highly frowned upon even though it is not technically mandatory. If you do end up missing class be sure to get the missed notes from a classmate.

If you miss a quiz or the midterm, then your absence must be documentable. If it is a "of the moment" type absence, such as illness, please let me know at least by the morning before the class. If you are sick enough to miss a quiz or midterm, then you are sick enough to go to the University Health Services and get a note. If the absence was known in advance, such as jury duty, please let me know at least 3 days in advance. I reserve the right to see the documentation for the absence. With the exception of very extreme circumstances, such as being in a coma, final exam make ups will not be given.

Classroom conduct

You are expected to act professionally in the classroom. This expectation includes but is not limited to: being quiet, silencing your cellular device, respecting other students, respecting the instructor, and asking questions by raising one's hand. If you are acting disorderly to the point where you are impeding on other students' ability to learn, I reserve the right to ask you to leave the classroom.

Late Work

All homework will be due at the beginning of the class period. If the homework is turned in the next class meeting time after the due date, it will be marked off 20%. If it is turned in one week late, it will be marked off 40%. If it is turned in two weeks late, it will be marked off 60%. And if it is turned in three weeks late, it will be marked off 80%. No points will be rewarded more than three weeks after the due date.

Office Hours

My office is located on the second floor of the Oceanography and Statistics Building (OSB) room 201G. My official office hours are Wednesdays and Thursdays from 2:00 PM to 3:00 PM. However, my unofficial office hours are anytime I am in my office. I am usually in my office available to discuss things or answer questions. I strongly encourage you all to utilize my office hours and come to me if you need extra help with anything. Although email is good for short questions, I would greatly prefer you to speak to me in person for any lengthy questions. By far, the easiest way to contact me is by coming to my office.

If you do come see me, all I ask is that you enter through the Wilcoxon Library. The only times I am not available to discuss things are when I am doing lecture preparation or other duties. For more details of my schedule of availability see http://www.stat.fsu.edu/~twiesen/spring14availability.pdf.

Syllabus
        This syllabus should be considered a contract between me (the instructor) and you (the student). However, there may come a time when a change to the syllabus becomes necessary. In such an event, the change will be announced in class and posted to blackboard.

Calendar

Date	Event	Points (if any)
Tuesday, Jan 7	First day of class, mandatory attendance	---
Thursday, Jan 16	HW 1 assigned	.
Tuesday, Jan 28	HW 1 Due	35
Thursday, Jan 30	Quiz 1	50
Tuesday, Feb 4	HW 2 Assigned	.
Thursday, Feb 13	HW 2 Due	35
Tuesday, Feb 18	Quiz 2	60
Thursday, Feb 20	HW 3 Assigned	.
Friday, Feb 21	Last day to withdraw from class	---
Tuesday, Mar 4	HW 3 Due	35
Thursday, Mar 6	Midterm Examination	200
Tuesday, Mar 11	Spring Break, No Class	---
Thursday, Mar 13	Spring Break, No Class	---
Tuesday, Mar 18	HW 4 Assigned	.
Thursday, Mar 27	Hw4 Due	35
Tuesday, Apr 1	Quiz 3	75
Thursday, Apr 3	HW 5 Assigned	.
Tuesday, Apr 15	HW 5 Due	35
Thursday, Apr 17	Quiz 4	85
Tuesday, Apr 22	HW 6 Assigned	---
Friday, Apr 25**	HW 6 Due** (5PM)	25
Tuesday, Apr 29	Cumulative Final Examination (12:30-2:30 block exam)	330
Tuesday, May 6	Final Grades uploaded to Blackboard (4PM)	total 1000
Wednesday, May 7	Final Grades visible to students (Noon)	---

** HW 6 is due on Friday, April 25th at 5 PM. We do not have class on Fridays, so just turn in the homework by putting it in my mailbox. My mailbox is located on the second floor of the Oceanography and Statistics Building (OSB).

University Policies

Academic Honor Code
      The Academic Honor Policy of The Florida State University outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to ". . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University." Please see the full statement of the Florida State University Academic Honor Policy at http://fda.fsu.edu/Academics/Academic-Honor-Policy.

      <u>Academic Honor Code violations will not be tolerated</u> and may result in receiving a zero for the assignment, failing the class, and disciplinary action from the University.

Completing this class as an Incomplete or Audit
      If you are auditing this course or taking it to complete an "Incomplete" earned in a previous term, make yourself known to me so that I may let you have access to our current Blackboard websites. If you are completing an "Incomplete", let me know who your former instructor was so that I may inform them of your grade at the end of the term.

Grading Appeals
      Grading appeals will be dealt with on a case to case basis.

Americans with Disabilities Act
      Students needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for and type of accommodation. This should be done during the first week of class. This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:
Student Disability Resource Center
108 Student Services Building
874 Traditions Way
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
http://www.disabilitycenter.fsu.edu/