



Central Connecticut State University

Department of Mathematical Sciences

STAT 215

Statistics for Behavioral Sciences I

Fall 2010

**Tuesday and Thursday, 6:45pm – 8:00pm
MS 101**

PREREQUISITE:

Successful completion of MATH 101 (with a grade of C- or higher) or by placement. Students who do not have the necessary prerequisite will not be allowed to stay in the course.

CATALOG DESCRIPTION:

Introductory treatment of research statistics used in behavioral sciences. Quantitative descriptive statistics, including frequency distributions, measures of central tendency and variability, correlation, and regression. A treatment of probability distributions including binomial and normal. Introduction to the idea of hypothesis testing. No credit given to students with credit for STAT 104, 108, 200, 314 or 315.

INSTRUCTOR:

Dr. S. A. Lesik
MS 225
Phone: (860)832-2837
E-mail: lesiks@ccsu.edu

The quickest way to reach me is by e-mail ... but be sure to put STAT 215 in the subject line.
My office hours for the Fall 2010 semester are:

Monday	11:30am – 2:00pm
Tuesday	10:30am – 11:00am, and 3:45pm – 4:15pm
Thursday	12:30pm – 2:00pm

And by appointment

TEXT:

Business Mathematics, Custom published by Pearson Custom Publishing (ISBN 0-536-74420-3)

GRADES AND COURSE POLICIES:

Grades will be based on the following:

Three Hour Exams	45%
In-class Quizzes/Take Home Computer Projects	30%
Final Exam (cumulative)	25%

In order to be fair to all students, no extra-credit work will be accepted at any time. **As a general rule there will be no make-ups allowed for missed or late work.** There are no exceptions to this policy, so please do not ask. However, if you know ahead of time that you are going to be out on the day when an exam is scheduled (not applicable to in-class quizzes), you can speak to me about arranging a time to take an exam in advance. Take home quizzes also can not be handed in late.

There will be three cumulative hour exams throughout the semester. If your grade on the final exam is greater than any single hour-exam grade, the hour-exam grade will be replaced by the grade you received on the final. If you miss an exam you will receive the grade of 0 for that exam, and the grade you receive on the final exam will be averaged in for the missed exam in determining your final grade. Cell phones, PDA's, laptops, or any other electronic devices (with the exception of graphing calculators) are not to be turned on during class or used during exams or quizzes unless otherwise permitted.

Quizzes will be given at random and will be based on the problems in the text or topics covered in class. Quizzes given in class can not be taken early. No missed or late quizzes can be made-up. In order to account for the occasional absence, I will drop the two lowest quiz grades.

Since there are two dropped quizzes and your lowest exam grade is replaced by the grade you receive on the final exam (provided it is higher), no excuses of any kind will be accepted. If you have so much going on in your life where you are excessively absent and thus can not keep up with the work on schedule, you may need to consider whether you should drop the course and take it at a time when you have less going on.

Please contact me privately to discuss your specific needs if you believe you need course accommodations based on the impact of a disability, medical condition, or if you have emergency medical information to share. I will need a copy of the accommodation letter from Student Disability Services in order to arrange your class accommodations. Contact Student Disability Services, room 241, Copernicus Hall if you are not already registered with them. Student Disability Services maintains the confidential documentation of your disability and assists you in coordinating reasonable accommodations with your faculty.

COURSE ETIQUETTE:

It is expected that all class participants will act appropriately at all times. I expect that all members of the course will work together to create a productive learning environment which includes giving others a chance to speak and respecting the rights and opinions of others. Excessive chatting and interruptions during class is a distraction to others who are trying to learn.

ELECTRONIC DEVICES POLICY:

Cell phones, laptops, or any other personal electronic device are not to be used during class, examinations, or quizzes unless special accommodations are necessary.

UNIVERSITY POLICIES:

- ❑ You must take the final examination at the time specified in the course selection book.
- ❑ If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share with me, or you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible. My telephone number and office hours are given above.
- ❑ In the event of a weather emergency which requires curtailment or cancellation of classes, listen to WTIC (10800 AM) or call (860)832-3333 for the “general snow message”, or log on to the college website (www.ccsu.edu) for any updates.
- ❑ The last day to drop a course with the grade of “W” is Monday, October 26th. From September 16th through October 26th, students may withdraw from the course by completing a withdrawal form, available in the Enrollment Center, in Willard Hall. During this period approvals for withdrawal are not required; however, it is strongly recommended that students consult with their academic advisors prior to deciding to withdraw. Cessation of attendance, notice to the instructor, or telephone calls to the Enrollment Center, are *not* considered official notice of a student’s intention to drop the course. After October 26th, withdrawals are allowed only under extenuating circumstances and require approval of the course instructor, department chair, and the dean of the School of Arts and Sciences.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT:

At Central Connecticut State University we value personal integrity as fundamental to our interactions with each other. We believe that one of the purposes of a University education is for students learn to think critically, to develop evaluative skills, and to express their own opinions and voices. We place special weight on academic honesty in all of our intellectual pursuits because it is a value that is fundamental to academic life and scholarly practice. All members of the University community are obligated to uphold high standards of academic honesty in their scholarship and learning. Therefore, we expect students to take personal responsibility for their intellectual work and to respect and acknowledge the ideas of others. Academic honesty means doing one's own work and giving proper credit to others whose work and thought one may draw upon. It is the responsibility of each student to become familiar with what constitutes academic dishonesty and plagiarism and to avoid all forms of cheating and plagiarism.

The CSU code of conduct, Guidelines for Student Rights and Responsibilities and Judicial Procedures, defines **academic misconduct** as including, but "...not limited to providing or receiving assistance in a manner not authorized by the instructor in the creation of work to be submitted for academic evaluation including papers, projects and examinations (cheating); and presenting, as one's own, the ideas or words of another person or persons for academic evaluation without proper acknowledgement (plagiarism)."

Cheating may take many forms. It includes, but is not limited to, the following actions, unless explicitly authorized by the instructor:

Exams:

- ❑ Copying from another person's paper or receiving unauthorized aid from another person during an examination;
- ❑ Use of unauthorized materials or devices during an examination or any other form of academic evaluation and grading; e.g., use of signals, notes, books, or calculators during an examination when the instructor has not approved their use;
- ❑ Knowingly allowing another person to copy from one's paper during an examination;

Improper Behavior:

- ❑ Use of another person as a substitute in any form of academic evaluation or acting as a substitute for another person in any form of academic evaluation. e.g., a student cannot have another person take an examination for him/her;
- ❑ Acquisition or distribution of improperly acquired examinations; e.g., stealing examinations before the test period or taking a copy of an examination from a testing room without the permission of the instructor; (Examinations which have been distributed by an instructor are legitimate study tools);
- ❑ Submission of another's material as one's own for academic evaluation;
- ❑ Preparation of work for another student to submit for academic evaluation;
- ❑ Unauthorized collaboration in the preparation of materials to be submitted for academic evaluation; e.g., working with another student on an assignment when the instructor has not authorized working together;
- ❑ Submission of the same work, or substantially similar work, in more than one course without prior consent of the evaluating instructor(s);
- ❑ Disruption in classroom, lab, or research and study areas; any conduct or actions that grossly or persistently interferes with the academic process. (See the CSU, Rights and Responsibilities, "Proscribed Conduct," No. 7, *CCSU Student Handbook*.)

AVAILABLE RESOURCES:

- ❑ If you need help, take advantage of my office hours. Don't wait until just before the exams to do so.
- ❑ The Learning Center is located in Room 241, Copernicus. Free statistics tutoring is available. A schedule for the hours the Center is open will be posted shortly after the beginning of the semester.
- ❑ Form a study group with other students in your class. Explaining solutions to homework problems to each other is a good way to learn.
- ❑ A list of private stats tutors is available in the math department office, Marcus White 107, (860)832-2835.
- ❑ Please contact me privately to discuss your specific needs if you believe you need course accommodations based on the impact of a disability, medical condition, or if you have emergency medical information to share. I will need a copy of the accommodation letter from Student Disability Services in order to arrange your class accommodations. Contact Student Disability Services, room 241, Copernicus Hall if you are not already registered with them. Student Disability Services

maintains the confidential documentation of your disability and assists you in coordinating reasonable accommodations with your faculty.

TENTATIVE LIST OF TOPICS (*to be covered if time permits):

Chapter 1

Descriptive and Inferential Statistics
Variables and Types of Data
Data Collection and Sampling Techniques
Observational and Experimental Studies
Uses and Misuses of Statistics
Computers and Calculators

Chapter 2

Organizing Data
Histograms
Stem-and-Leaf Plots
Scatterplots

Chapter 3

Measures of Central Tendency
Measures of Variation
Measures of Position
Exploratory Data Analysis

EXAM #1

- 10.1 Scatter Plots and Correlation
- 10.2 Regression*
- 10.3 Coefficient of Determination and Standard Error of the Estimate*

- 4.1 Sample Spaces and Probability
- 4.2 The Addition Rules for Probability
- 4.3 The Multiplication Rules and Conditional Probability

- 5.1 Probability Distributions
- 5.2 Mean, Variance, Standard Deviation, and Expectation
- 5.3 The Binomial Distribution

EXAM #2

- 6.1 Normal Distributions
- 6.2 Applications of the Normal Distribution
- 6.3 Central Limit Theorem
- 6.4 The Normal Approximation to the Binomial Distribution

- 7.1 Confidence Intervals for the Mean when σ is Known
- 7.2 Confidence Intervals for the Mean when σ is Unknown
- 7.3 Confidence Intervals for Proportions*

- 8.1 Steps in Hypothesis Testing – Traditional Method
- 8.2 z - Test for a Mean
- 8.3 t – Test for a Mean
- 8.4 z – Test for a Proportion*

EXAM #3

FINAL EXAM