

CAMPBELLSVILLE UNIVERSITY

MATH/CIS

Course Syllabus

Dr. Janet Miller

I. TITLE: Mathematics 331, Probability and Statistics

II. CATALOG DESCRIPTION: This course will include topics in the history of probability theory, probability, odds, counting techniques, mathematical expectations, distributions, moments, sampling, hypotheses testing, and other applications in statistics. Prerequisite: Math 211 (Calculus II) or consent of instructor.

III. TEXTBOOK: Introduction to Probability and Statistics by Mendenhall and Beaver, 14th edition, Duxbury publishing, 2013.

IV. OBJECTIVES:

1. Student's will develop a historic perspective in this area of study.
2. Student's will demonstrate a working knowledge of both statistics and probability.
3. Student's will apply their knowledge to the area of statistical inference.
4. Students will problem solve within and outside the field of mathematics using statistical modeling.
5. Student's will demonstrate the ability to communicate mathematical ideas in written and oral form.
6. Students will make connections between previous mathematical courses and the field of probability and statistics.
7. Student's will use available technology and statistical software to solve probability and statistics problems.

V. COURSE REQUIREMENTS:

1. Attendance: Each student is expected to be present for every class meeting unless some unavoidable circumstance arises. In the event that a student misses class they will still be held responsible for the material covered and the assignment. Also this course will comply with the University's Student Attendance Policy. (See student handbook).

2. Testing and Grading: Daily assignments will be made and discussed. There will be four 100 point exams, as well as 4 case studies worth 25 points each. These tests and projects will occur approximately 4 weeks apart. Solutions to some problem solving may require the use of statistical software or similar software with statistical applications. There will be weekly quizzes that will be averaged and used as an additional test score. Make-up exams will be given only for legitimate excused absences and if the professor is contacted in advance.

The grading scale is based on 600 points using percents as follows:

<u>Percent</u>	<u>Grade</u>
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

3. Teaching Methods: Students will be taught problem solving and application, through class participation, discussion, group work, and lecture.

4. Academic Integrity

Cheating will not be tolerated in this course. The first time a student is determined to be cheating on an exam or quiz a grade of zero will be assigned to that quiz or exam. The second time the student is determined to be cheating on a quiz or exam the course grade will automatically become an F regardless of past or future performances in that course.

5. CELL PHONE (or similar device) POLICY: Each student is required to read and sign a contract describing the cell phone policy for this course. A copy of the contract will be kept on file and another provided to the student. This course adheres to a NO TOLERANCE POLICY ON CELL PHONE (or similar device) USE during class time. (See the attached contract.)

6. Electronic Devices, Programmable Devices, and Calculators:

Graphing calculators are required for this course. There may be restricted use of graphing calculators as determined by the professor. However, this will be a very helpful tool for problem solving.

7. Children In Class Policy

Only in extreme cases are children allowed in the classroom or laboratory facilities, and then only with approval of the instructor *prior* to class.

8. Disability Statement: Campbellsville University is committed to reasonable accommodations for students who have documented physical and learning disabilities, as well as medical and emotional conditions. If you have a documented disability or condition of this nature, you may be eligible for disability services. Documentation must be from a licensed professional and current in terms of assessment. Please contact the Coordinator of Disability Services at 270-789-5192 to inquire about services.

9. Campus Security Phone Numbers:

OFFICE: 270-789-5555

10. Title IX Statement: Campbellsville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires all responsible employees, which includes faculty members, to report incidents of sexual misconduct shared by students to the University's Title IX Coordinator.

Title IX Coordinator:

Terry VanMeter

1 University Drive

UPO Box 944

Administration Office 8A

Phone – 270-789-5016

Email – twvanmeter@campbellsville.edu

Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at : www.campbellsville.edu/titleIX

VI. COURSE OUTLINE:

1. Introduction to statistics
2. Describing sets of data
3. Probability and probability distributions
4. Discrete Distributions
5. The Normal and other continuous distributions
6. Sampling distributions
7. Large-sample estimation
8. Large-sample tests of hypothesis
9. Inferences from Small Samples

VII. AUXILIARY TEXTBOOKS FOR REFERENCE PURPOSES:

1. Statistics by Robert Witte 9th edition
2. Statistics by Freedman, Pisani, and Purves

VIII. OFFICE HOURS:

My office is #315 in Carter Hall. My office hours schedule will be posted on the bulletin board next to my office door. Other hours are available by appointment.

My email: jmiller@campbellsville.edu My phone number is (270) 789-5325.

**Cell Phone (or similar device) Policy Contract for
MTH 331**

*PLEASE READ THE FOLLOWING VERY CAREFULLY SINCE, THIS IS A NO TOLERANCE POLICY ON
PHONE USE IN CLASS AND THE FAILURE TO COMPLY IS SEVERE.*

- (1) USE OF CELLULAR TELEPHONES (or similar devices) ARE PROHIBITED DURING CLASS TIME. THIS INCLUDES TEXT MESSAGING.

- (2) ANY STUDENT USING THEIR DEVICE DURING CLASS TIME WILL BE ASSIGNED A FAILING GRADE FOR THE COURSE and will no longer need to attend the class.

- (3) Although different policies exist in varying courses this course has a NO TOLERANCE POLICY ON COMMUNICATION DEVICES USED DURING CLASS. Research has shown that a student using a cell phone unrelated to the course material during class time diminish their abilities to learn the subject matter being presented. No student needs this kind of handicap while trying to master a subject. If using the telephone is more important than your grade in the course then wasting your time and the professor's time is an unnecessary outcome.

- (4) For purposes of campus safety Dr. Miller will have a cell phone at her disposal in case of an emergency.

- (5) TURN OFF YOUR PHONES AND PUT THEM SOMEWHERE THAT DOES NOT CREATE A TEMPTATION AT THE BEGINNING OF EVERY CLASS.

I understand what is stated in this policy and agree to adhere to these conditions under penalty of a failing grade.

Student

Dr. Janet Miller, Professor