

SYLLABUS OF INSTRUCTION

QMTH 2330

Business Statistics

Dr. Jim Downey

Spring 2019



UNIVERSITY OF CENTRAL ARKANSAS
COLLEGE OF BUSINESS
VISION, MISSION, AND CORE VALUES STATEMENT

COB Vision

Our vision is to be a recognized leader in developing business talent and ideas that create growth and opportunity in Arkansas and globally.

COB Statement of Mission and Core Values

We educate a diverse population of current and future business professionals to successfully and ethically meet the challenges of the global business environment. Through active engagement with the local, regional, national, and global communities, our faculty strive to deliver a high-quality business education via experiential education, a relevant curriculum, and scholarly contributions. We pursue continuous improvement opportunities to add value for our College and its stakeholders.

In carrying out this mission, the College of Business is guided by the following core values and expects the following outcomes:

1. Intellectual Excellence.

- 1.1. Educate students: We promote intellectual and professional development of students by emphasizing communication, critical and analytical thinking, collaboration, information management and a broad exposure to key business disciplines.
- 1.2. Scholarship: We believe that faculty and students should engage in professional development and scholarly endeavors that promote and impact the application, creation and dissemination of knowledge through contributions to business practice, learning and pedagogical research, and discipline-based scholarship.
- 1.3. Cultural competence: We maintain and develop current and responsive curriculum that prepares students for the global business environment through broad exposure to key business disciplines.
- 1.4. Physical learning environment: We strive to provide a physical infrastructure with appropriate technology that provides an environment in which our students and faculty can thrive professionally and intellectually.

2. Community.

- 2.1. Collegiality: We encourage transparency in our decision making practice through a process of shared governance based on interactions among faculty, staff, and students.
- 2.2. Service: We pursue collaborative partnerships between our internal and external stakeholders to impact and promote life-long and experiential learning, research, service, and community engagement.

3. Diversity.

- 3.1. We value the opportunity to work, learn, and develop in a community that embraces the diversity of individuals and ideas.

4. Integrity.

- 4.1. Ethics: We are committed to ethical and responsible behavior in our own actions and to developing the same commitment in our students by promoting the awareness of professional ethical responsibilities.
- 4.2. Responsibility: We commit to being responsible and accountable in our operations at all levels, including assessment and continuous improvement of our academic programs and transparency in our fiscal and operational proceedings.

Learning Goals

Our graduates shall possess:

1. Critical Thinking & Analytical Thinking Skills;
2. Awareness of the Global Business Environment;
3. Ethical Reasoning Abilities;
4. Effective Communication Abilities;
5. Effective Collaborative Skills;
6. Understanding of a Broad Range of Business Disciplines.

Course Syllabus

Course Information

Course Number:	QMTM 2330
Course Name:	Business Statistics
CRN:	29837
Semester:	Spring 2019
Location:	COB 307
Class Hours:	TT 1440-1555

Instructor Information

Name:	James Downey
Office Location:	305J
Work Email:	jdowney@uca.edu
Phone:	501-450-5327
Office Hours:	MTWF: 9-11 and 2-4

Prerequisite:

MATH 1390 College Algebra (or equivalent)

Textbook and Instructional Materials Required:

Text: *Statistical Techniques in Business & Economics (17th Edition)*
by Lind, Marchal, Wathen
ISBN: 978-1-259-66636-0

Course Description:

This is a required course for all business majors in the Business Foundation. The mode of instruction is lecture. The course involves an introduction to descriptive statistics, graphing, probability theory, discrete and continuous distributions, sampling methods, estimation and confidence intervals, and one sample tests of hypotheses. Learning statistics involves solving problems. A few of these problems may be computer based, using Microsoft Excel (a common business organization spreadsheet); most will merely require a calculator. The key to learning statistics is actually doing these problems, in the form of homeworks!

Course Objectives: this course enables students to understand core statistical concepts, be able to calculate common statistical functions, and help students use statistics to optimally solve business problems and make wiser business decisions. Understanding such principles will prepare students for future classes within the business (or any discipline) curriculum as well as serve students as they enter the business profession.

Course Delivery Method:

Lecture and lab.

Grading:

The final grade is comprised of daily homework/quizzes and tests. Doing HW is a must; it not only counts toward your final grade, but every test question has HW equivalents. Read the chapter before this class!! There are no makeups for the quizzes and if you are not present or arrive late, you will simply miss the quiz (receiving a zero). There will be three exams, plus a final, which will be a comprehensive test. You may (will) drop your lowest test grade.

Therefore should you choose to use your first three tests for your three “required” exams, you do not need to take the final (it will be optional in this case). You will know all your test grades prior to the final so you can choose. Should you take all four tests, again, the lowest test grade will be dropped. **Should you miss any test, for any reason, that will be the test that is dropped.** You will no longer have the option of not taking the final.

Homework/Quizzes:	10%
Each Test (3 of 4 required):	30% (each)

SCALE:

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 59% and below

It is suggested that each student keep a portfolio of his/her graded work. If a grade is missing or questioned, and the student has no proof of the grade, the instructor’s grade will be accepted.

Grading Rules

1. You must show each step of the problem-solving process in order to receive credit on HWs and exams. A correct answer without complete supporting work will receive no credit.
2. Generally, round all answers to three decimal places. Use standard rounding conventions (digits from 1-4 are rounded down, 5-9 are rounded up). When using tables, which are typically four decimal places, use four.
3. Computational errors result in incorrect answers. When an answer is incorrect, it is simply not possible to check each and every step of every incorrect answer for every student. Partial credit is given where possible, but that will clearly be the exception (unless you show all steps). **BE METICULOUS!**
4. Students must bring calculators to the exams. Students are not allowed to share a calculator nor may you use a cell phone as a calculator (cell phones must not be visible during exams). Calculators must be advanced enough to raise a number to a negative exponent.

5. Students must show each step in the problem-solving process (note this repeats step 1)! If you are figuring standard deviation, for example, a calculator will calculate it for you, but if you do not show each step of the calculation you will receive no credit. I want you be able to work the formulas (most which will be provided). You must show the formula, substitute the known data values, do the arithmetic, and show the final answer (rounded to three decimals).

6. Exams for each student will be different. While they will have similar problems, the numbers will be changed so that each answer will be different.

Description of Major Deliverables/Course Requirements:

Class Schedule: See last page.

Evaluations

Student evaluations of a course and its professor are a crucial element in helping faculty achieve excellence in the classroom and the institution in demonstrating that students are gaining knowledge. Students may evaluate courses they are taking starting on the Monday of the thirteenth week of instruction through the end of finals week by logging in to myUCA and clicking on the Evals button on the top right.

Policies and Procedures:

Calculator/Software

A calculator will be required; you may use any type, including a simple one. The primary software we use will be Microsoft Excel (rare use).

Attendance and Drop policies:

Attendance is important for this class; much of the assigned work is done in class. I will take roll every class period. More than 3 absences without explanation could result in the student being dropped from the class with a W. Only excused absences will be allowed for makeup. I will not accept homework from an absent student.

Assignment Submission:

Homework is due at the **beginning** of the class before the lecture begins. If you show up late and I've already collected the homework, the HW will be late. Do not wait until you get to class to complete or print an assignment. I will accept HW late one class period; that is, if an assignment is due on Wednesday (at the beginning of class), I will accept it only until the beginning of the next class (Friday). The penalty for a late HW is 15%.

Makeup Exams: make up exams will not be given, except in extreme emergency. If a student misses an exam, that exam will count as the test grade that is dropped. A second missed exam will typically be given a zero.

Classroom Policies: Appropriate classroom behavior is expected at all times. Respect for others at all times is also expected. In classrooms, there is no eating or drinking. Cell phones are not allowed for tests. Bring a calculator! You will need one. Tests are open notes, open book.

Academic Integrity Statement:

The University of Central Arkansas affirms its commitment to academic integrity and expects all members of the university community to accept shared responsibility for maintaining academic integrity. Students in this course are subject to the provisions of the university's Academic Integrity Policy, approved by the Board of Trustees as Board Policy No. 709 on February 10, 2010, and published in the Student Handbook. Penalties for academic misconduct in this course may include a failing grade on an assignment, a failing grade in the course, or any other course-related sanction the instructor determines to be appropriate. Continued enrollment in this course affirms a student's acceptance of this university policy.

Disabilities Act Statement:

The University of Central Arkansas adheres to the requirements of the Americans with Disabilities Act. If you need an accommodation under this Act due to a disability, please contact the UCA Office of Disability Services, 450-3613.

Sexual Harassment and Academic Policies:

All students are required to familiarize themselves with the University of Central Arkansas policy on sexual harassment and on academic policies. These policies are printed in the Student Handbook.

Title IX:

If a student discloses an act of sexual harassment, discrimination, assault, or other sexual misconduct to a faculty member, the faculty member cannot maintain complete confidentiality and is required to report the act and may be required to reveal the names of the parties involved. Any allegations made by a student may or may not trigger an investigation. Each situation differs and the obligation to conduct an investigation will depend on those specific set of circumstances. The determination to conduct an investigation will be made by the Title IX Coordinator. For further information, please visit: <https://uca.edu/titleix>.

Emergency Procedures Summary (EPS):

An Emergency Procedures Summary (EPS) for the building in which this class is held will be discussed during the first week of this course. EPS documents for most buildings on campus are available at <http://uca.edu/mysafety/bep/>. Every student should be familiar with emergency procedures for any campus building in which he/she spends time for classes or other purposes.

Other Required Materials/Competencies/Resources:

Dishonesty in any form – including plagiarism, turning in assignments prepared by others as one’s own, unauthorized possession of exams, using other student’s work or files, or providing for others your own work – will result in an “F” for the assignment and may result in the student being dropped from the class with an F. No tests are to be kept by the student. Failure to return a test will result in an F for that test and may result in an F for the course.

Note: homework is an individual effort. You may not use others’ work in any fashion (nor may you allow anyone to use *your* work).

Accreditation & Assurance of Learning**Learning Goal(s) Assessed in this Class**

There is no formal assessment activity scheduled in this class.

There is formal assessment activity scheduled in this class.

Learning Goals:

[N/A]

Learning Objective:

[N/A]

Measure:

[N/A]

Benchmark:

N/A

QMTB 2330 Business Statistics Spring 2019

Month	Date	Topics	Chapter
Jan	10	Introduction to Statistics/Variables	1
	15	Describing Data	2
	17	Graphics	2
	22	Measures of Location	3
	24	Measures of Dispersion/Variance	3
	29	Displaying Data/Measures of Position	4
	31	Skewness and Scatterplots	4
Feb	5	Probability/Rules of Addition	5
	7	TEST 1 (Chapters 1-4)	
	12	Rules of Multiplication	5
	14	Principles of Counting	5
	19	Discrete Probability Distributions	6
	21	Binomial Probability Distributions	6
	26	Poisson Probability Distributions	6
	28	Continuous/Normal Probability Distributions	7
Mar	5	Normal Distributions	7
	7	Standard Normal Probability	7
	12	Sampling Methods	8
	14	Lab	
	19	TEST II (Chapters 5-7)	
	21	CLT/Sampling Distribution of Sample Mean	8
	26/28	SPRING BREAK	
Apr	2	Confidence Interval-Population Mean	9
	4	CI-Population Proportion	9
	9	Sample Sizes	9
	11	Hypothesis Testing	10
	16	Testing with Known σ	10
	18	Testing with Unknown σ /p-values	10
	23	TEST III (Chapters 8-10)	
	25	Review; final class	