

Monfort College of Business
Course Syllabus

(2009-2010)

COURSE PREFIX/TITLE: BAFN 291--Business Statistics I

Sem. Hrs. 3

Ed. Cap. 40

CATALOG DESCRIPTION: Prerequisites: Successful completion of the computer proficiency exam or BA 101, and MATH 124. Learn the use of statistics in business activities through techniques of descriptive statistics, sampling distributions, statistical estimation, tests of hypotheses, and introduction to bi-variate linear regression.

PREREQUISITE: Successful completion of the computer proficiency exam or BA 101, and MATH 124.

COURSE OBJECTIVES: The student will become familiar with techniques and tools of statistical analysis including the use computer software, and tables. Upon completion of this course, students will be prepared for the Business Statistics II course.

COURSE TOPICS:

Approx.

50 Min.

Periods

Topics Covered

Description

1	Introduction	Introduce statistical concepts and course objectives.
3	Graphical Methods	Describe frequency distribution tables, histograms, and stem-and-leaf diagrams. The use of least square trends to describe time-series data.
3	Numerical Methods	Describe grouped and raw data; mode; median, mean, range, variance; standard deviation, box plots, outliers, and skewness.
3	Probability	Discuss counting methods, marginal/conditional/joint probabilities, mutual exclusion, independence, complements, and Venn diagrams.
1	Bayes Theorem	Discuss computations, tree diagrams, and tables.
1	Discrete and Continuous Probability Distributions	Discuss probability density functions, exact and cumulative probabilities.
2	Bernoulli Events and Binomial Distribution	Discuss binomial probabilities, mean and variance of the binomial distribution.

Approx.
50 Min.
Periods

	<u>Topics Covered</u>	<u>Description</u>
3	Poisson Distribution	Discuss Poisson and its applicability, exponential distribution and its relationship to the Poisson.
2	Normal Distribution	Discuss the standard-normal probability table; the generalized normal Z-transformation, the relationship of Z-scores to areas/probabilities.
2	Central Limit Theorem	Discuss the theorem's limitations, and the sampling distribution of the arithmetic mean.
3	Estimates of Population Mean	Discuss Point and Interval/Lower-bound/Upper-bound estimates of population mean, large/small samples, population variance known/not known.
2	Estimates of Population Proportion	Discuss Point and Interval/Lower-bound/Upper-bound, estimates of population proportion, large/small samples.
3	Introduction to Linear Models	An introduction to correlation, linear regression, scatter plots and linear fits, and errors.
7	Tests of Hypotheses	Discuss tests of hypotheses for the population mean, proportion, alpha and beta risks, the manufacturer's and consumer's risks, and the determination of decision rules and sample size.
4	Linear Regression Analysis	Bi-variate linear regression, and linear statistical models with tests of hypothesis about the regression parameters. Error Analysis.
1	Ethics	Discuss appropriate use of statistics and reporting in light of ethical considerations.
<u>4</u>	Exams	Three in-class examinations. Review materials and explain results.
45	Total	

COURSE REQUIREMENTS: Examinations.

TYPE OF GRADING: Letter

SUGGESTED TEXT AND/OR SUPPLEMENTS: (Note: These books are only suggested. Prior to purchasing books and other materials, students need to check with the class instructor for their book and class material choices.)

Freed, N. (2007). *Understanding business statistics*. Independent Publishing.

ASSESSMENT STATEMENT: The Monfort College of Business may collect data in this course that will be used to assess student progress toward our program learning goals and objectives. Individual student performance information will be kept confidential; however, this data may be disseminated in an aggregate form to professional groups and through research publications. If you do not wish your performance in this class to be included in research about overall student performance (beyond the accreditation process), please inform your instructor in writing of this intent.

COMPUTER UTILIZATION: Students are expected to use Microsoft Excel and The Kaddaddin, a statistical software product. It is available on the MCB network and can be accessed from any workstation in Kepner. It provides support for a wide range of statistical techniques and in this course is used with graphical methods, descriptive statistics, correlation and regression.

LIBRARY UTILIZATION: Students are encouraged to use the Michener Library collections and online subscription information resources to supplement readings and to complete assignments. Library databases include *Business Source Premier*, *Business & Company Resource Center*, *LexisNexis Academic*, and many others available at <http://library.unco.edu/articlefinder.htm>. The business reference librarian, Annie Epperson, holds regular Kepner office hours. Find her contact information at <http://www.unco.edu/library/personnel/epperson.htm>.

GLOBAL DIMENSION COVERAGE: As appropriate, students are encouraged to consider the global dimension as they complete their outside readings and assignments.

ETHICAL DIMENSION COVERAGE: "How not to lie with statistics" is a major concern. The selection of appropriate statistical measures, the selection of appropriate techniques and sampling bias are discussed in light of ethical considerations. In addition, honest and complete reporting of statistical results is considered.

DISABILITY STATEMENT: Any student requesting disability accommodation for this class must inform the instructor giving appropriate notice. Students are encouraged to contact Disability Support Services at (970) 351-2289 to certify documentation of disability and to ensure appropriate accommodations are implemented in a timely manner.

CLASSROOM TECHNOLOGY GUIDELINES:

Each student is required to review and become familiar with the following classroom technology guidelines: <http://www.mcb.unco.edu/Technology/Classroom%20Technology%20Guidelines.pdf>

Food is not allowed in classrooms. Only drinks in a container with a screw top lid are allowed.

KENNETH W. MONFORT COLLEGE OF BUSINESS STATEMENT

The Kenneth W. Monfort College of Business students are expected to conduct themselves in accordance

with the highest standards of academic honesty. Cheating, plagiarism, illegitimate possession and
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disposition of examinations, alteration, forgery, or falsification of official records and documents, and similar acts or the attempt to engage in such acts are grounds for disciplinary action. This action can include the following in addition to any University disciplinary action:

1. A failing grade for a particular assignment.
2. A failing grade for a particular course.
3. Suspension from the College of Business Administration.
4. Expulsion from the College of Business Administration.

Students are expected to complete all prerequisites for a business class prior to the first day of class. Students may not concurrently enroll in a class and its prerequisite(s) unless it is expressly stated in the bulletin that the class is a co-requisite. Any exception to this policy must be approved by the Director of the School offering the class.

Students must submit original works for assignments required in this class. This includes term papers, cases and other course requirements. A student who submits a work that was previously submitted to another class without prior approval from the instructor is in violation of this policy. A student who violates this policy may receive a failing grade for the assignment, a failing grade for the class, and face termination of his/her business degree program.

MONFORT COLLEGE OF BUSINESS STUDENT CODE OF PROFESSIONAL CONDUCT:

Monfort College of Business students represent the professional and academic interests of the entire MCB & UNC communities. Accordingly, MCB expects all students to behave in a professional manner and adhere to high ethical standards in every business class and in every activity connected with the Monfort College of Business. This professional behavior is required not only in the classroom but also in all MCB-related interactions such as e-mails, conferences and use of technology.

MCB students should exhibit respectful behavior in classes. This behavior includes arriving on time to class, staying in class until the lecture ends, having the discipline to stay engaged in class, turning-off or silencing cell phones and pagers while in class, refraining from text-messaging, and avoiding coming to class wearing clothing that is unduly provocative or has written messages that are rude, insensitive or obscene. MCB students should engage in respectful behavior in all activities where they act directly or indirectly as a representative of the MCB. Respectful behavior creates a more desirable, civilized, and productive learning environment, and it models behavior that is both productive and pleasant when students transition from the classroom to the workplace.

MCB students should master and apply the fundamental skill of preparing and sending class or university related e-mails that are properly written, show professionalism and communicate a clear message. E-mails containing profanity, spelling mistakes, punctuation errors, or poor composition evidence sloppiness and show disrespect to the recipient. MCB students should use proper forms of address when communicating orally or in writing with faculty or staff (i.e., Dr. Smith, Professor Jones, Ms. Abbot, etc.). If a student does not know how to address a faculty member, he or she should ask.

This code of professional conduct complements, but does not replace, the Honor Code of the Monfort College of Business or the Honor Code of the University.

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