

**SCMA 3300 - BUSINESS STATISTICS
SPRING 2018
ROBERT FRESE**

Revised: 2/5/18

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Office hours: Wed 10:30-11:00 Thr 12:00-12:30 or
By Appointment.

Lectures: *Section 002* MW 11:00-12:15AM in ABH 003
Section 004 TT 12:30 - 1:45PM in SSB 132

Prerequisites: MATH 1105, INFSYS 1800, and a 2.0 campus GPA. If you do not meet these prerequisites, the College of Business may unilaterally drop you from the class.

Course Description: Construction and use of statistical models for business management. Students will learn techniques used for statistical analysis and business forecasting and how to apply them to business management. Tools include Chi-Square tests of statistical independence; analysis of variance; simple linear regression and correlation; multiple linear regression; and extrapolative techniques such as moving averages and exponential smoothing. Emphasis is placed on problem definition, construction of statistical models, analysis of data, and interpretation of results. Computers are utilized to facilitate solutions to more complex models.

Primary Text:

Statistics for Business and Economics by Anderson, Sweeney, and Williams, 13th edition revised, Cengage Learning (2018, 2015) *Note: No other editions of text will be referenced*

Software:

Microsoft Office **EXCEL** as directed in class
Interface for course: **canvas.umsl.edu** and **cengage.com**

Grading:

35% (175 pts) Homework assignments (**100 pts**) & quizzes (**75 pts**) (*the lowest homework and quiz score will be dropped*). Homework will be a combination of computerized and hand-written assignments; all quizzes will be completed as open-book, in-class written exercises.

40% (200 pts) Two midterms with weights of 20% each (100 pts ea); *study points provided.*

25% (125 pts) Final Exam (comprehensive): **Sec 002 5/7 at 10:00; Sec 004 5/10 at 10:00AM**

Grading Scale: A = 90%+ B = 80-89% C = 70-79% D = 60-69% F = Below 60%

NOTE: +/- grades will be used in the assignment of course grades

No projects for "extra credit" at the end of the semester will be offered

Communication: Students will receive email communications which will be issued in the form of announcements within the *canvas* Learning Management System. Note that homework assignments will generally be issued, completed, and graded within the *Cengage* system now utilized within many SCMA and other CoBA courses.

Additional Resources: Notes in the form of Power Point slides will be posted on the *canvas* site for most chapters. It will be helpful for most student to review the PPT slides and read the text before each class. You should read the text SLOWLY and in all likelihood MORE THAN ONCE. EXCEL software will be utilized to facilitate solving problems from several chapters. Expectations regarding the use of Excel are discussed on the last page.

Exams/Assignments: All homework assignments must be submitted on time in the assigned format; no make-ups for missed quizzes. A midterm can be scheduled in the Test Center only if you schedule ahead. If valid extenuating circumstances cause you to miss a midterm, the percent earned on the Final will become the basis for the missed score.

Class Preparedness: Students should come prepared for each class with textbook, pencil, and calculator. Items can NOT be shared on exams and are NOT provided by the instructor.

Attendance: Note that 10 bonus points can be earned at the end of the term if you miss at most one class on those days when attendance is taken. Regardless of the frequency you choose to attend, you are responsible for ALL material presented in class - whether you are present or not.

Special Needs: If you have documented special needs, it is your responsibility to notify the instructor and provide required documentation so that necessary accommodations can be made.

Classroom Decorum: Civilized behavior is expected in the classroom, especially within larger classes. Excessive talking with classmates, routinely arriving late, and leaving before class is dismissed are all disruptive and complicate the creation of a positive learning environment.

Academic Honesty: According to the University Standard of Conduct, Section 6.0101, “The Board of Curators recognizes that academic honesty is essential for the intellectual life of the University. Faculty members have a special obligation to expect high standards of academic honesty in all student work. Students have a special obligation to adhere to such standards.” Any student(s) caught cheating in any manner on any exam/assignment may receive a reduced grade for that exam/ assignment. Also, ALL such incidents must be reported to the Office of Academic Affairs. Please note this can lead to suspension or dismissal from the university!

Note on Homework Assignments: Although discussion of homework assignments with other students is encouraged, note that **each student must prepare his/her own solutions.** This means it is NOT acceptable to xerox or simply “cut and paste” someone else’s work and then add your name to it. **THIS WILL BE CONSIDERED TO BE ACADEMIC DISHONESTY!**

Note on Exams/Quizzes: Cell phones or any electronic devices capable of transmitting text must be stored in backpack, book-bag, purse, etc. **Should you need to use a restroom, only 1 at a time, and phone must be left on my desk. Do not take ACADEMIC DISHONESTY lightly!**

Tutoring: Tutoring assistance will be provided by Deanna Pan (238) and Juan Zhang (240) in Express Scripts Hall. **Office hours will be: Mon (9:00-11:00 JZ and 1:00-3:00 JZ and 5:45-6:45 JZ); Tue (11:00-12:30 DP); Wed (9:00-11:00 JZ and 1:00-3:00 DP and 5:45-6:45 JZ); Thr (11:00-12:30 DP).** See Canvas for SI session schedule. **These resources come at zero cost!**

On your own:

Expand your familiarity with the Excel software package. If you do not have your own computer with EXCEL, it is available in the Student Computer Labs on campus. EXCEL provides a vehicle for creating a printable, neat summary of your analysis as well as a means of facilitating extensive data calculations and statistical function lookups. Knowledge of EXCEL will be very useful as well as necessary to solve some homework problems. Although the development of student proficiency in EXCEL is important, you will **not** be tested on EXCEL per se.

TENTATIVE SCHEDULE

INITIAL REVIEW FROM MATH 1105:

You should carefully review Chapter 5 on Discrete Probability Distributions and Chapter 6 on Continuous Probability Distributions – primarily the standard normal distribution. Chapter 7 (Sec 1-8): Sampling & Sampling Distributions Chapter 8 (Sec 1-4): Interval Estimation Chapter 11 (Sec 1): Inferences about Variances

COURSE MATERIAL (subject to change):

Wk of JAN 28	[29, 31] [30, 1]	Chapter 9 - Hypothesis Testing
Wk of FEB 4	[5, 7] [6, 8]	CH 9 (cont)
Wk of FEB 11	[12, 14] [13, 15]	Chapter 10 - Mean Inferences w/Two Populations
Wk of FEB 18	[19, 21] [20, 22]	Chapter 11 - Inferences about Variances
Wk of FEB 25	[26, 28] [27, 1]	EXAM 1; Chapter 12 - Tests of Goodness of Fit
Wk of MAR 4	[5, 7] [6, 8]	CH 12 (cont); Chapter 13 – ANOVA
Wk of MAR 11	[12, 14] [13, 15]	CH 13 (cont)
Wk of MAR 18	[19, 21] [20, 22]	Chapter 14 - Simple Linear Regression
Wk of MAR 25	-----	<i>Spring Break</i>
Wk of APR 1	[2, 4] [3, 5]	Chapter 15 – Multiple Regression
Wk of APR 8	[9, 11] [10, 12]	EXAM 2; Chapter 17 - Forecasting
Wk of APR 15	[16, 18] [17, 19]	CH 17 (cont)
Wk of APR 22	[23, 25] [24, 26]	Chapter 18 - Nonparametric Testing
Wk of APR 29	[30, 2] [1, 3]	Chapter 20 - Index Numbers
Wk of MAY 6*	7, 10	FINAL EXAM

* See notes on pg 1 for specific exam times