Syllabus

MBA 5X03

June 2016

1 Course information

Course title: Fundamentals of Business Statistics
Course number: MBA 5X03 N
Credit hours: 3
Semester: June 2016
Room: Cameron 220
Days & hours: TTh 5:30-9:30pm
Web page: WebAssign.net Class key = ust.tx 9179 6910

2 Instructor Information

Name: J. Patrick King, Ph.D.
Email: jcking@stthom.edu
Office hours: after class and by appointment

3 Course catalog description

MBA 5X03 (3 credit hours) This course provides an introduction to probability and statistics with applications for students without an introductory undergraduate course in statistics. It is not a course in mathematical statistics, but provides a balance between statistical theory and application. Topics include: descriptive statistics; basic probability models; random variables; discrete and continuous probability distributions; statistical estimation and testing; confidence intervals and an introduction to linear regression.
4 MBA program goals and objectives

The Masters of Business Administration program has six goals for students who complete the MBA degree at the University of St. Thomas:

1. They will be effective communicators.
   
   Objective 1: Graduates will deliver a compelling oral presentation.
   
   Objective 2: Graduates will write professional quality documents.

2. They will be effective team members.
   
   Objective 1: Graduates will demonstrate appropriate group techniques to participate in team task that results in effective performance.
   
   Objective 2: Graduates will demonstrate effective leadership skills in a group project.

3. They will be ethical decision makers.
   
   Objective 1: Graduates will recognize the ethical issues implicit in a business situation.
   
   Objective 2: Graduates will describe and use ethical frameworks applicable to business situations.
   
   Objective 3: Graduates will develop a variety of ethical alternatives for resolving, or at least addressing, a problem in business.

4. They will be globally aware.
   
   Objective 1: Graduates will perform a global business situation analysis.
   
   Objective 2: Graduates will formulate global business strategy.
   
   Objective 3: Students will evaluate global business strategy.

5. They will be able to integrate knowledge across multiple business disciplines.
   
   Objective 1: Graduates will identify business problems and opportunities that result from actors internal and external to the organization.
   
   Objective 2: Graduates will apply quantitative and qualitative techniques from the different business disciplines to address problems and opportunities.

6. They will be knowledgeable about multiple business disciplines.
5 Course learning objectives

This course will introduce concepts and techniques for summarizing and analyzing data. The course provides definitions of statistical terms and types of data, techniques for describing data, and methods of estimation and testing hypotheses. Upon completion of the course, the student will be able to:

- Identify different types of data/variables and the appropriate summary statistic for describing each
- Create tables/graphs describing data sets and variables
- Identify random variables and probability distributions
- Construct and interpret confidence intervals
- Conduct hypothesis tests
- Fit and interpret linear regression models
- Use excel as appropriate for all of these tasks

6 Textbook

Textbook: *Introductory Statistics* by Illowsky & Dean OpenStax College 2013

7 Instructional methods

This course will combine lectures, demonstrations, guided practice, online exercises, and independent projects.

8 Technology

Students will use Microsoft Excel to complete some assignments. Students are expected to access their UST email accounts. Email communications from the professor will be via the UST class roster email list which sends emails to the UST email account of each student. If you do not regularly access this account, it is imperative that you have your email forwarded to the account which you regularly use.
9 Course schedule

First week: 31 May and 2 June

Ch 12: regression part 1. Ch 1: types of data, frequency tables. Ch 2: describing and summarizing data using plots and statistics, z-scores. Ch 5, 6: continuous random variables, the normal distribution, z table quiz.

Second week: 7, 9 June

Ch 3, 4, 5: discrete random variables (like coins, dice and the binomial family), dice quiz. Ch 7: sampling distributions, central limit theorem. Ch 8: t distribution, t table quiz.

Third week: 14, 16 June

Ch 9: hypothesis testing. Ch 12: regression part 2, correlation.

Fourth week: 21, 23 June

Ch 8: confidence intervals. Ch 9, 12: more regression, more confidence intervals, more hypothesis testing.

Last week! 28, 30 June

Review and loose ends on Tuesday. Final exam on Thursday.

10 Grading and policies

Course grades will be calculated according to the category weights listed below.

- Homework assignments in WebAssign (30%). Due dates in WebAssign are absolute.

- Excel quizzes submitted via email and any in-class quizzes (30%). Excel quizzes may require multiple revisions based on email feedback from me. Due dates refer to the first submission only. All quizzes are due in final form by 30 June and there will be limited time for back and forth in the last week of class.
• Final exam (30%). For the final exam you can prepare and use a single front-and-back page of notes. You can use any computational tools you want. I will provide printed probability tables for the old-school students. Some questions will require excel. Missing the final exam on Thursday 30 June guarantees you will fail the course.

• Participation (10%). Attendance will be taken in every class. Your class participation will be evaluated subjectively based upon measures of punctuality, attendance, in-class work, relevance and insight reflected in classroom questions and commentary. Differences in technical background will not be a criterion. Students will be expected to be familiar with the readings, even though they might not understand all of the material in advance.

Course grades will be converted to final letter grades as follows:

- 93 and higher = A
- 90 to 92 = A-
- 88 to 89 = B+
- 83 to 87 = B
- 80 to 82 = B-
- 78 to 79 = C+
- 73 to 77 = C
- 70 to 72 = C-
- below 70 = F

Dropping the course: If you decide you do not wish to continue the course, it is your responsibility to go through the proper channels and officially drop the course. Always consult with your advisor and instructor before dropping the course.

11 Available support services

Students needing extra assistance with course concepts are advised to take advantage of the tutorial services offered by the Department of Mathematics, Computer Science and Cooperative Engineering, The Cameron School of Business or visit the Tutorial Services Center.
Mission statement

Inspired by the Basilian Fathers’ motto of Goodness, Discipline and Knowledge, the Cameron School of Business provides a comprehensive, high quality, ethically-oriented business education to a diverse student body enabling graduates to serve as leaders of faith and character in a global economy.

Academic honesty

Ethical conduct is essential to a community of scholars and students searching for truth. Anything less than total commitment to honesty and honorable conduct undermines the efforts of the entire community. Academic integrity lies at the very heart of any institution of higher learning. In the Cameron School of Business, students and faculty are expected to commit to a code that exemplifies each individual’s honor and integrity. Any conduct that violates this standard and betrays the respect of others is a matter of grave concern and, accordingly, is deemed unacceptable.

Policy/procedure

Policy on academic dishonesty can be found in the CSB Graduate Student Handbook, Fall 2013. Every offense against academic honesty seriously undermines the teaching-learning process for which the University exists, and such offenses will be dealt with expeditiously according to the following criteria.

Definition

Academic dishonesty includes but is not limited to:

1. Cheating on an examination or test; for example, by copying from another’s work or using unauthorized materials before or during the test, including the use of electronic devices;

2. Plagiarism, which represents as one’s own the work of another, whether published or not, without acknowledging the precise source;

3. Participation in the academic dishonesty of another student, even though one’s own work is not directly affected;

4. Any conduct which would be recognized as dishonest in an academic setting.
Penalty

The penalty for an incident of academic dishonesty is, at the discretion of the faculty member, either a mark of zero for the work in question or a grade of F for the course.

Accommodations

The University of St. Thomas abides by the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, which stipulates that no student shall be denied the benefits of an education "solely by reason of a disability." If you have a documented disability that may impact your performance in this class and for which you may require accommodations, you must be registered with and provide documentation of your disability to Counseling and Disability Services which is located on the second floor of Crooker Center. Contact Debby Jones or Rose Signorello at 713-525-6953 or 713-525-3162.