# BUSA501 Introduction to Business Analytics COURSE SYLLABUS

Professor: Dr. Yuying(Sarah) Shi Email: yuying.shi@tamuc.edu Office: BA320

When: 2016 Fall Semester

Office Hour: Wednesday 1:30 p.m. - 4:30 p.m. (CST)

## **Course Description**

This course teaches graduate students the process of analyzing big data and discovering new information to support management decision making. Topics include the analysis of production data, analysis and management, and marketing research analysis.

## **Course Objectives**

1. Understand the concept of business analytics.

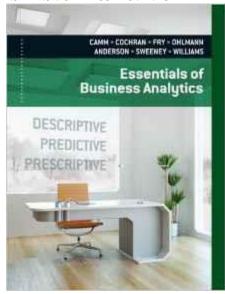
- 2. Use spreadsheets for examining data and building decision models.
- 3. Apply linear regression and time series analysis.
- 4. Apply linear and nonlinear optimization models to make business decision.
- 5. Use simulation models to understand the effect of uncertainty on decisions.

## **Required Text and Materials:**

Textbook: Essentials of Business Analytics (1st edition)

Author: Camm/Cochran/Fry/Ohlmann/Anderson/Sweeney/Williams

#### ISBN:978-1-285-18727-3



#### Required Statistical Software:

Microsoft Excel (2010 is recommended) and Microsoft Access (2010 is recommended).

## **GRADING**

Your grade will be determined by your performance on 2 exams, and 6 assignments. The point distribution for the course is as follows:

2 Exams (40 points: 1@ 20 points)

6 Individual Assignments (60 points: 1 @ 10 points)

Total (100 points)

The following scale will be used to assign final grades:

SCORE	>=90	80-89.9	70-79.9	60-69.9	<60
GRADE	Α	В	С	D	F

## **Important Information**

### **Deadlines are absolute:**

All assignments and exams must be completed on the due date. Late work will not be accepted and will be graded as zero.

#### Extra credit policy:

**NO extra credits will be awarded for individual students**. Don't attempt to ask for individual extra credit at the end of semester to raise your grade. It is not fair to other students.

#### Exams.

Two equally weighted exams will be given during the semester. <u>There is no make-up exam</u>. Each exam time limit is approximately 2 hours. <u>You will not be able to print exams. Exams are not resettable</u>. Access to the exams will be restricted after the due date.

## **Email Policy:**

When you send me email, be sure to include the course title (BUSA501) and section number in the subject line. I receive more than 50 emails a day. To ensure that your email reaches my inbox and reduce confusions, do include your course title and section number in your email subject line.

Students are required to check their email at least once a day. The eCollege environment will be used for class related material and document posting so the students are expected and required to have access to that platform.

## **Assignment Policy**

All assignments will be graded within one week, or at least no more than 10 days after the due date. Some students might turn in the assignment earlier than the due date. I usually grade all assignment together unless you make specific requirement.

#### Time Zone:

The default time zone is Central Standard Time (CST) for all assignments, exams, discussions and etc.

## **Technology Requirement**

At a minimum, you must have access to internet and to Microsoft Office 2013, 2010, 2007 or Open Office. For additional information about system requirements, please see: https://secure.ecollege.com/tamuc/index.learn?action=techn.

This course will be facilitated using Pearson LearningStudio, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to: http://www.tamuc.edu/myleo.aspx.

## **COURSE AND UNIVERSITY PROCEDURES/POLICIES**

## **TECHNOLOGY REQUIREMENTS**

This is an online course and some obvious technological resources will be required. Access to a computer with:

- o Internet access (high-speed preferred)
- o Speakers so you can hear audio enhanced assignments throughout the semester
- o Word processing software (Microsoft Word preferred)

#### **ACCESS AND NAVIGATION**

The course utilizes eCollege., the Learning Mangement System used by TAMUC. To get started with the course, go to: <a href="https://leo.tamuc.edu/login.aspx">https://leo.tamuc.edu/login.aspx</a>

**eCollege Technical Concerns:** Please contact the eCollege HelpDesk, available 24 hours a day, seven days a week. by sending an email directly to helpdesk@online.tamuc.org. You may also reach the HelpDesk by calling 1-866-656-5511 toll FREE, or through the Online Chat by clicking on the "Live Support" tab within your eCollege course.

**Other Questions/Concerns:** Contact the appropriate TAMU-C department relating to your questions/concern. If you are unable to reach the appropriate department with questions regarding your course enrollment, billing, advising, or financial aid, please call 903-886-5511 between the hours of 8:00 a.m. - 5:00 p.m., Monday through Friday.

## **Syllabus Change Policy**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

# University Specific Procedures Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See current Student Guidebook).

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <a href="Netiquette">Netiquette</a>
<a h

#### **ADA Statement**

### **Students with Disabilities**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

## Office of Student Disability Resources and Services

Texas A&M University-Commerce Gee Library- Room 132 Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148

Email: Rebecca.Tuerk@tamuc.edu

Website: Office of Student Disability Resources and Services

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

#### **Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34Safe tyOfEmployeesAndStudents/34.06.02.R1.pdf) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

## **COURSE SCHEDULE**

<u>Date</u>	<b>Topic</b>	Chapter	Assignment
Week 1 (08/31-09/03)	Introduction /Syllabus	1	
Week 2 (09/04-09/10)	Linear Regression	4	Q12, (P.189), Q19(P.194)
Week 3 (09/11-09/17)	Time Series Analysis	5	Q21( P.242)
Week 4 (09/18-09/24)	Data Mining	6	Q9 (P.313)
Week 5 (09/25-10/1)	Spreadsheet Models	7	
Week 6 (10/2-10/8)	Linear Optimization	8	
Week 7 (10/9-10/15)	Linear Optimization	8	Q5, (P391-392)
Week 8 (10/16-10/22)	Exam 1		
Week 9 (10/23-10/29)	Integer Linear Optimization	9	
Week 10 (10/30-11/5)	Nonlinear Optimization	10	Q6, P528
Week 11 (11/6-11/12)	Monte Carlo Simulation	11	
Week 12 (11/13-11/19)	Decision Analysis	12	
Week 13 (11/20-11/26)	Data Analysis I		
Week 14 (11/27-12/3)	Data Analysis II		
Week 15 (12/4-12/10)	Exam 2		

Note: The above schedule is subject to change at the discretion of the instructor.