EMBA 510 01W 83351

Economic Forecasting Fall 2014

Professor: Stanley Holmes

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TAMU office: BA 107

Office Hours: 11:00 A.M. to 12:00 P.M. and 2:00 P.M. to 3:30 P.M. Central Time Wednesdays and Thursdays Central Time or by appointment (BA Room 107 TAMU Commerce). We may also meet online at our Classlive website during the hour before class and by appointment.

Text: Business Forecasting 9th ed., Hanke and Wichern.

Pearson/Prentice Hall, Inc, ISBN: 139780132301206

Software: You need to rent the student version of MINITAB 17. On The Hub.com is an on-line distributor of Minitab software. As a student you can rent Minitab 17 on-line and download it straight to your personally owned computer. You will be required to provide a campus e-mail address (.edu) or other proof of your academic status.

OnTheHub.com offers two rental options. Currently they offer a six month rental of Minitab 17 for \$29.99. They also offer a 12 month rental of Minitab 17 for \$49.99. These licenses are for the full professional version. To rent go to www.onthehub.com/minitab (note do not rent or use Minitab 16 for our classwork.)

You will also need to have a copy of Microsoft Excel and Word on the same computer.

| Hardware: Reliable access to a computer with Microsoft Excel and Word along wit |
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Minitab 17. In addition, you should have a computer camera and headset with a

microphone. Be sure to test the equipment before class begins.

Important Dates: Refer to the academic calendar at:

http://www.tamu-commerce.edu/registrar/pdfs/academicCalendar09.pdf

Class:

Online Lectures Thursdays and from 6:30 P.M. to 9:30 P.M.. Lectures will cover specific chapters and examples. Log on the eCollege Course Home for live lectures that will cover specific chapters and examples. Online lectures can be reviewed by replay.

Course Objective:

Objectives of this course is to introduce the student to the basics of quantitative methods and their application to real business situations as well as the use of current software available for forecasting. After taking this course the students will be able to apply different forecasting techniques to empirically test the effects of business programs and business policy analysis and professionally present the results of their analysis.

Course Outline:

Chapter 1 Introduction to Forecasting in the Enterprise - Week of Aug. 25

Chapter 2 Review of Basic Statistical Concepts - Week of Aug. 25

Chapter 3 Data Patterns and Forecasting Techniques - Week of Sept. 1

Chapter 4 Moving Averages and Smoothing Methods - Week of Sept. 8

Chapter 5 Time-Series and Their Components - Week of Sept. 15

Project Part 1- Data identification and collection of historically important independent variables -- 20 points

Project Part 2 - Exponential Smoothing and Decomposition X Variable Forecasts – 20 points - Due Sep. 24

Chapter 9 Box-Jenkins (ARIMA) Type Forecasting

- Week of Sep. 22

Project Part 3 - ARIMA Forecasts for each X variable and selection of the forecast to be

used in regression – 20 points - Due Sep. 29

Chapter 6 Simple Linear Regression - Week of Sep. 29

Chapters 7& 8 Multiple Regression Analysis/Time Series - Week of Oct. 6

Project Part 4 Multiple Regression Forecast submission – 20 points - Due Oct. 13

Combining Forecasts using Regression - Week of Oct. 13

Project submission (10 points) - Due by Oct. 25

Project Part 5 Completed Online Forecast Presentation(schedule TBA) - 20 points -

Week of Oct. 27

NOTE: This outline is subject to change! Check your e-mail multiple times every day, check our class eCollege website and attend the class regularly.

Grades and Administrative Matters:

Grades will be based on a 4-part project forecast (total of 20 points.), and a completed formal project presentation (20 points). Project forecasts must be completed and submitted on time. No late work will be accepted. Again, late projects will not be accepted. Course grades will be assigned as:

$$80-89 \% B$$

Below 60 % F

See the student evaluation criteria below.

Helpful Hints: Since this is an online course, you need to follow your school emails regularly. You will have regular announcements and uploads posted in the class eCollege website. For each chapter assigned, you need to read your book, make sure you understand the key concepts and apply the concepts using MINITAB. Reading the assigned materials, working the assigned exercises, using office hours, being in frequent communication with your instructor, and checking the class website regularly are very important learning tools. A textbook will be placed on 2 hour reserve in the library on campus in case the dog ate yours. It can be checked out from the circulation desk. Unfortunately, there is not a similar online opportunity.

All assignments must be submitted to the appropriate assignment dropbox in the course eCollege website. Each submission should have a filename with your **first initial** followed by your **last name**, **eco 510** and **assignment number (assign#)**.

Project Parts: You will have to upload your project proposals and projects to the relevant dropbox folder on e-College by midnight of the specified due date. Each submission should include a summary page of what you had done, how you have done it and interpretations of the results. Plots, statistics, tables and other Minitab or Excel software output without interpretation will be considered incomplete and will not be graded. Please submit everything in Word format, cite and LABEL your variables.

Class, Lab, Class Workshops and Office Hours: I strongly recommend using all options. Do not miss a class lecture session and if you have any questions contact me for further explanations via the email. If you need to miss a lecture be sure you view a replay.

Rules, Regulations and Other Stuff:

All students enrolled at the university shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. If you have a disability requiring an accommodation, please use the contacts listed below.

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

StudentDisabilityServices@tamuc.edu

Office of Student Disability Resources and Services

Gee Library, Room 132

Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148

StudentDisabilityServices@tamu-commerce.edu

<u>PLAGIARISM</u> The College of Business and Technology at Texas A&M University-Commerce students will follow the highest level of ethical and professional behavior. Actionable Conduct includes illegal activity, dishonest conduct, cheating, and plagiarism. Failure to abide by the principles of ethical and professional behavior will result in sanctions up to and including dismissal from the university.

Plagiarism represents disregard for academic standards and is strictly against University policy. Plagiarized work will result in an "F" for the course and further administrative sanctions permitted under University policy. Guidelines for properly quoting someone else's writings and the proper citing of sources can be found in the APA Publication Manual. If you do not understand the term "plagiarism", or if you have difficulty summarizing or documenting sources, contact your professor for assistance.

<u>STUDENT WORKLOAD</u> University students are expected to dedicate a minimum of *90 clock hours* during the term/semester for a 3SH course.

Student Evaluation Criteria

| Criteria | 1(Unsatisfactory) | 2 (Emerging) | 3 (Proficient) | 4 (Exemplary) |
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| Understanding of time series data and components using various statistical and graphical tools. | Student can't demonstrate understanding of the components. | Student can identify some components. | Student can identify most components using most of the tools. | Student can identify all components using all the tools. |
| Understanding of Regression Analysis and application to both time series and cross section data. | Student cannot demonstrate an understanding of regression analysis. | Student demonstrates an understanding of some regression concepts but cannot apply it. | Student demonstrates an understanding of the concept of regression and can apply those concepts. | Student demonstrates an understanding of the concept of regression and can apply to time series and cross section data. |
| Understanding and application of different univariate time series models including but not limited to Smoothing, Decomposition, and ARIMA. | Student cannot demonstrate an understanding of univariate methods. | Student demonstrates an understanding of some/ all of the univariate time series models but can't apply. | Student demonstrates an understanding of some/ all univariate time series models and apply some of them successfully. | Student demonstrates an understanding of all univariate time series models and apply them successfully. |
| Deriving the best forecast of key enterprise data from the combination of various forecasts. | Student cannot demonstrate an understanding the processes to derive the best enterprise forecast. | Student can demonstrate an understanding of 1 out of 3 of these processes. | Student can demonstrate an understanding of 2 out of 3 of these processes. | Student can demonstrate an understanding of the entire processes. |