

TEXAS A&M UNIVERSITY – COMMERCE

College of Business

Department of Economics & Finance

Economics 309 02E CRN #81157

Economic Forecasting

Fall 2014

Syllabus

**Professor:** Stanley Holmes, Ph.D. Assistant Professor of Economics – Professional Track

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**Office Hours:** 11:00 A.M. to 12:30 P.M. and 1:45 P.M. to 3:30 P.M. Central Time Mondays and Wednesdays or by appointment (BA Room 102 TAMU Commerce Main Campus).

**Text:** *Business Forecasting* 9<sup>th</sup> ed., Hanke and Wichern.

Pearson/Prentice Hall, Inc, ISBN: 139780132301206

**Software:** You need to rent the student version of MINITAB 17. OnTheHub.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](http://www.onthehub.com/minitab) (note do not rent or use Minitab 16 for our classwork.)

**Important Dates:** Please refer to the academic calendar at:

<http://www.tamuc.edu/admissions/registrar/academicCalendar.aspx>

**Class** Class will meet in BA 345 every Monday and Wednesday from 9:30 A.M. to 10:45 A.M. Central Time. The lecture will cover specific text chapters and examples in the order mentioned in the syllabus. Our first class will meet on Monday, August 25.

**Course Objectives** 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 economic theories and business policy analysis and professionally present the results of their analysis.

**Course Outline:** 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.

Chapter 1 Introduction to Forecasting

Chapter 2 Review of Basic Statistical Concepts

Chapter 3 Data Patterns and Forecasting Techniques

***Project Part 1 (Proposal - 5 points) Due 9/17***

Chapter 4 Moving Averages and Smoothing Methods

***Project Part 2 (Exponential Smoothing - 5 extra credit points) Due 9/24***

Chapter 5 Time-Series and Their Components

***Project Part 3 (Decomposition - 5 extra credit points) Due 10/8***

✓ ***EXAM 1—Chapters 1,2,3,4, 5 (25 points) Due 10/15-10/18***

Chapter 9 Box-Jenkins (ARIMA) Type Forecasting Models and Combining Forecast Methods

***Project Part 4 (ARIMA - 5 extra credit points) Due 11/5***

✓ ***EXAM 2— Chapter 9 (25 points) Due 11/12-11/15***

Chapter 6 Simple Linear Regression

Chapters 7& 8 Multiple Regression Analysis/Time Series

***Project Part 5 (Regression - 5 extra credit points) Due 11/26***

✓ ***EXAM 3—Chapters 6,7 and 8 (25 points) 12/3 - 12/6***

***Completed Class Project Part 5 (20 points) Due 12/3***

**Grades and Administrative Matters:** Grades will be based on 3 exams worth 25 points each and a 2-part formal class project that includes a proposal and a final project report for a total of 25 points. The three exams and project form the basic grade points for this course. In addition, there are 4 other assigned project parts that may be completed and submitted on time to earn credit. I strongly suggest doing the extra credit work since it will contribute to additional earned points and a better class project.

No late work will be accepted or graded. Plan in advance for the exams: there will be no early exams, no make-up exams or time extensions. An exam that is missed will be considered an F, unless I am notified prior to the exam and the excuse is a legitimate medical one or officially approved. Computer issues are not a valid excuse for not submitting a completed exam. Regardless of the excuse, if you miss two tests you will automatically fail the class. Again, late assignments and projects will not be accepted. Course grades will be assigned as:

90 – 100 % A

80 – 89 % B

70 – 79 % C

60 – 69 % D

Below 60 % F

See the student evaluation criteria below.

**Helpful Hints:** Since this is an enhanced 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 309** and **assignment number (assign#)**.

**Exams:** Each exam will be online and can be found just before the exam date on our class eCollege course home website. The exams may also require data to be downloaded from Doc. Sharing in our eCollege website. Each exam is subject to a time limit. You will have to submit your answers to exam problems by the specified deadline. Late work will not be accepted or graded.

**Project Parts:** You will have to upload your project assignments, proposals and completed class project 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 and output without interpretation will be considered incomplete and will not be graded. Please submit everything in Word format, cite and LABEL your variables.

**Class Live, Lab 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.

**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 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:** 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.

**Student Workload:** University students are expected to dedicate a minimum of *90 clock hours* during the term/semester for a 3SH course.

### **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](mailto:StudentDisabilityServices@tamuc.edu)

#### **Student Evaluation Criteria**

<b>Criteria</b>	<b>1(Unsatisfactory)</b>	<b>2 (Emerging)</b>	<b>3 (Proficient)</b>	<b>4 (Exemplary)</b>
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.
Identification of the best model from alternative models and obtaining forecasts using at least one software.	Student cannot demonstrate an understanding of the model selection processes.	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.