Economics 309 01W 21334
Economic Forecasting
Spring 2015

Professor: Stanley Holmes

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Office Hours: From 2:00 until 4:00 P.M. Mondays and Wednesdays. From 12:30 to 4:00 P.M. Central Time on Tuesdays and Thursdays in BA 102. Other time by appointment. We may also meet online at our ClassLive website by appointment.


Software: You need to rent the student version of MINITAB 16 for 6 months at http://www.minitab.com/en-US/academic/. You will also need Microsoft Excel on your computer.

Important Dates: Please refer to the academic calendar at:

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

CLASS Online lectures will be held on Tuesdays from 6:30 P.M. until 9:30 P.M. central time. During the lectures we the will cover specific chapters and examples mentioned in the syllabus. You may use the BA computer lab or the library computers at TAMUC as an alternative to your personal computer. I suggest that you download a copy of Minitab to enable you to follow examples during the lecture.

SOFTWARE: You need to rent the student version of MINITAB 16 for 6 months at:


You also need Microsoft Excel on your computer. Download and test the software before the course begins.
**HARDWARE:** You must have a headset with microphone for this class. It is required to participate during class. Be sure to test the equipment before class begins.

**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 economic theories and business policy analysis and professionally and present the results of their analysis in a formal business report.

**COURSE OUTLINE**

Chapter 1 Introduction to Forecasting  
Week of Jan 20

Chapter 2 Review of Basic Statistical Concepts  
Week of Feb 2

Chapter 3 Data Patterns and Forecasting Techniques  
Week of Feb 9

*Project Part 1 (Proposal- 5 points)  
Due by Feb 18*

--Includes data collection in Excel and data analysis

Chapter 4 Moving Averages and Smoothing Methods  
Week of Feb 16

*Project Part 2 (up to 5 extra credit points)  
Due by Feb 16*

Chapter 5 Time-Series and Their Components  
Week of Feb 23

*Project Part 3 (up to 5 extra credit points)  
Due by Feb 30*

✓  
*EXAM 1— Chapters 1 through 5 (25 points)  
Week of Mar. 2*

Chapter 9 Box-Jenkins (ARIMA) Type Forecasting Models  
Week of Mar 9

*Project Part 4 (up to 5 extra credit points)  
Due by Mar 30*

✓  
*EXAM 2— Chapter 9 (25 points)  
Week of Mar 30*

Chapter 6 Simple Linear Regression  
Week of Apr 6

Chapters 7 & 8 Multiple Regression Analysis/Time Series  
Week of Apr 13

*Project Part 5 (up to 5 extra credit points)  
Due Apr 27*

*Completed Class Project Part 6 (20 points)  
Due by May 1*
Includes the best forecast with each method presented in Excel format along with a Minitab graphical presentation.

☑️ EXAM 3—Chapters 6, 7 and 8 (25 points)   Week of May 4

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 3 exams (25 points each) and a 6-part formal class project (total of 25 points). Four of the project parts may be submitted for extra credit. These are shown in red in the course outline above. Project Parts must be completed and submitted on time as scheduled during the course to earn credit. No late work will be accepted. Plan in advance for the exams: there will be no early exams and no make-up exams. 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. 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 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 and Excel. 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.
Do not fall behind in this class or underestimate the time it will take to do the assignments. You must do the work when it is required. Experience has shown that students have a much better chance of success in this course when all extra credit assignments are completed and submitted on time.

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 on our class eCollege website. Each exam is subject to a time limit. For each exam you will need to download data found in an Excel file in Doc Sharing. You will have to complete the selection of your answers to exam problems by the specified submission deadline. Late work will not be accepted.

CLASS PROJECT

The project objective is to derive the best two year forecast for the sales revenue for the company assigned to you. The historical revenue data from Hoovers will be provided to you in excel format. You will be responsible for collecting other data in excel format for variables that you hypothesize have a causal influence on the assigned company revenue. A list of acceptable data sources is provided in Doc Sharing. Your hypothesis and the variable data will be included in a project proposal. A description of the project proposal and project general outline can be found in Doc Sharing.

You will need to upload your project proposal and project to the appropriate Dropbox folder on e-College by midnight of the specified due date. Each submission should include a summary page of what was done and interpretations of the results. Plots and output without interpretive narrative will be considered incomplete and will not be graded. Submit everything in Word format including inserted data files in Excel format, a citation for each variable data series and a label for each of the variables.

CLASS, LAB/WORKSHOP 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.

NONDISCRIMINATION  A&M-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.

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

Student Evaluation Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>1 (Unsatisfactory)</th>
<th>2 (Emerging)</th>
<th>3 (Proficient)</th>
<th>4 (Exemplary)</th>
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<tbody>
<tr>
<td>Understanding of time series data and components using various</td>
<td>Student can’t demonstrate understanding of the components.</td>
<td>Student can identify some components.</td>
<td>Student can identify most components using most of the tools.</td>
<td>Student can identify all components using all the tools.</td>
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<tr>
<td>Understanding and graphical tools in excel and Minitab.</td>
<td>Understanding of Regression Analysis and application to both time series and cross section data.</td>
<td>Understanding and application of different univariate time series models including but not limited to Smoothing, Decomposition, and ARIMA.</td>
<td>Identification of the best model from alternative models and presenting the best forecasts in excel format and Minitab graphics.</td>
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<tr>
<td>Student cannot demonstrate an understanding of regression analysis.</td>
<td>Student demonstrates an understanding of some regression concepts but cannot apply it.</td>
<td>Student demonstrates an understanding of some/ all of the univariate time series models but can’t apply.</td>
<td>Student cannot demonstrate an understanding of the model selection processes.</td>
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<tr>
<td>Student demonstrates an understanding of the concept of regression and can apply those concepts.</td>
<td>Student demonstrates an understanding of all univariate time series models and apply some of them successfully.</td>
<td>Student demonstrates an understanding of all univariate time series models and apply them successfully.</td>
<td>Student can demonstrate an understanding of the entire processes.</td>
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