

# Economics 309

## Economic Forecasting

### SUMMER II 2014

Professor: Asli K. Ogunc  
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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 at <http://www.onthehub.com/minitab/> There is a free 30 day trial, however, it is cutting very close to the end of the semester. It might work if you are careful.

Important Dates: Please refer to the academic calendar at <http://www.tamuc.edu/admissions/registrar/academicCalendar.aspx>

Class LivePro: TBA  
We will cover specific chapters and do examples.

#### **COURSE OBJECTIVE**

Objectives of this course is to introduce the student to the basics of both regression and time series techniques 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 policy analysis and professionally present the results of their analysis.

#### **COURSE OUTLINE**

##### WEEK 1:

Chapter 1 Introduction to Forecasting  
Chapter 2 A Review of Basic Statistical Concepts  
Chapter 3 Data Patterns and Forecasting Techniques

*Project Part 1 (Proposal- 5 points)*

*Sunday, July 13*

##### WEEK 2:

Chapter 4 Moving Averages and Smoothing Methods  
Chapter 5 Time-Series and Their Components

*Project Part 2 – 5 points*

*Sunday, July 20*

✓ *1<sup>st</sup> EXAM—Chapters 1,2,3,4, 5 TBA*

WEEK 3 & 4:

Chapter 6      Simple Linear Regression

*Project Part 3- 10 points*

*Sunday, July 27*

Chapter 7      Multiple Regression Analysis/Time Series

*Project Part 4- 10 points*

✓ *2<sup>st</sup> EXAM—Chapters 6,7*

*Sunday, August 3*

WEEK 5:

Chapter 9      Box-Jenkins (ARIMA) Type Forecasting Models

*Project Part 5 - 10 points*

✓ *Final EXAM— Comprehensive - Thursday, July 7*

NOTE: This outline is subject to change! Check your e-mail multiple times every day and listen to the Class Live regularly.

**GRADES AND ADMINISTRATIVE MATTERS:**

Grades will be based on 2 exams (15 points each), completed project (total of 40 points), participation (10 points) and a comprehensive final exam (20 points). 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 your professor is notified prior to the exam and the excuse is a legitimate medical one or officially approved. Regardless of the excuse, if you miss two tests you will automatically fail the class. 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

**HELPFUL HINTS**

SINCE this is an online course, you need to follow your school emails very regularly. You will have regular announcements and uploads. 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 electronic office hours, being in constant communication with your instructor, 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.

**EXAMS:** The multiple choice portion of each exam will be online. You will have limited time to work on the problems part, too. You will have to upload your answers to problems to the relevant folder by the specified deadline. Late work will not be accepted.

**PROJECT PARTS:** You will have to upload your projects to BOTH turn-it-in.com and the relevant 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 in complete and will not be graded. Please submit everything in Word format and LABEL your variables.

**CLASS LIVE PRO AND VIRTUAL OFFICE HOURS:** I strongly recommend using both options. In case you miss a session, please listen to the archived recordings and contact me for further explanations or questions via the email. To be able to use the chat platform for e-College, you will need a head-set with earphones and a microphone. The combo can be purchased online or at Wal-mart for approximately \$20. Separate speakers and a microphone will not work as they create feedback in the system.

#### **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. 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  
Gee Library, Room 132  
Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148  
[StudentDisabilityServices@tamu-commerce.edu](mailto:StudentDisabilityServices@tamu-commerce.edu)

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 graduate students are expected to dedicate a minimum of *90 clock hours* during the term/semester for a 3SH course delivered online.

<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.

This course is part of the business core