



COURSE SYLLABUS

Course: **ECON 4753 Forecasting**

Prerequisite: (ECON 2013 and ECON 2023 or ECON 2143) and (MATH 2043 or MATH 2554) and (MATH 2053 or MATH 2053C) and (WCOB 1033 or STAT 2303).

Course Description:

Elementary forecasting techniques and econometric models will be introduced in this course. Students in this class will learn the skills to do business forecasting, to estimate different econometric models, to compare forecasting models, and to do basic regression analysis with Time Series data. All empirical analysis will be based on Microsoft Excel, Eviews and STATA etc.

Textbook:

Business Forecasting, 9th edition, by John E. Hanke and Dean W. Wichern, Pearson, Prentice Hall. ISBN-13: 978-0-13-230120-6. ISBN-10: 0-13-230120-2. (Required)

Introductory Econometrics, Jeffrey M. Wooldridge, South-Western, ISBN 0-324-28978-2

Course Grade:

Your final grade will be determined by several parts- exams, project, assignments and in class quizzes. The exams will account for 65% of the total grade. The first two in class exams are not cumulative. Final exam is accumulative. You can use final grade to substitute any lower grade in exam 1 and 2. We will have 5 assignments. The highest 4 grades of assignments will account for 20% in final grades. Each accounts for 5% in your final grade. The project accounts for 10% in your final grade.

Project can be group work (2~4 person). You can propose a topic by yourself, collect your own data and apply the techniques we have learned in class to analyze data, construct your own forecasting models, compare different models. You can also use the examples I give in class for project. Every group will present the project at the end of the semester.

Exam 1: Oct. 4, Class time 32.5%

Exam 2: Dec. 6, Class time 32.5%

Final Exam: Dec. 13, 2012, 1-3pm

*All dates and times are subject to change.

There might be 6-7 in-class quizzes. They are multiple choices or short questions. If you get the RIGHT answer, you get 2 bonus points; if you get a WRONG answer, you get 1 bonus points for

attendance; if you get NO answer, you get no point. The highest five quizzes grade will be in final grade count as 5%.

Course Outline:

Chapter 1: Introduction

Chapter 2: Fundamentals of Basic Algebra, Probability and Statistics

Chapter 3: Exploring Data Patterns and an Introduction to Forecasting Techniques

Chapter 4: Moving Averages and Smoothing Methods

Chapter 6: Simple Linear Regression

Exam 1 Oct. 4, in class

Chapter 6: Simple Linear Regression

Chapter 7: Multiple Regression Analysis

Chapter 8: Regression with Time Series Data

Chapter 9: ARIMA Methodology (Optional)

Chapter 5: Time Series and Their Components (Optional)

Exam 2 Dec. 6, in class

Policies:

The student who missed exam must provide an official proven emergency which prevents you from attending class on the scheduled exam date **within 24 hours** after the missed exam to be allowed to take a makeup. Otherwise the student is not eligible to take a makeup exam and the missed exam equals zero point.

There is no makeup for in-class quizzes.

No late homework will be accepted.

If you have any questions during the lecture, please don't hesitate to ask me immediately. More clarification may help you and also other students who may have same questions. If for some reason you will come late or you need to leave early for the class, please sit close to the door and try to disturb the rest of class as little as possible.

Academic Integrity:

“As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail.”

“Each University of Arkansas student is required to be familiar with and abide by the University's ‘Academic Integrity Policy’ which may be found at <http://provost.uark.edu/> Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.”

Special Assistance:

If you need special assistance, please let me know during the first week of the classes, so that the required arrangement could be provided as soon as possible. The American with Disabilities Act (ADA) is 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 believe you have a disability requiring an accommodation, please contact The Center for Educational Access(<http://www.uark.edu/ua/csd/>).

Tentative Lecture Schedule

Week	Date	Content
1	Aug. 21	Introduction and Overview/Math Review
	Aug. 23	Chapter 1/2 Fundamentals of Basic Algebra, Probability and Statistics
2	Aug. 28	Chapter 2 Explore Data Patterns and Forecasting Techniques
	Aug. 30	Chapter 3
3	Sep. 4	Chapter 3
	Sep. 6	Chapter 3
4	Sep. 11	Computer Lab
	Sep. 13	Moving Averages and Smoothing Methods Chapter 4
5	Sep. 18	Chapter 4
	Sep. 20	Simple Linear Regression Chapter 6
6	Sep. 25	Chapter 6
	Sep. 27	Chapter 6
7	Oct. 2	Review
	Oct. 4	Exam 1 (in class)
8	Oct. 9	Chapter 6
	Oct. 11	Multiple Regression Analysis Chapter 7
9	Oct. 16	Fall Break
	Oct. 18	Chapter 7
10	Oct. 23	Chapter 7
	Oct. 25	Chapter 8
11	Oct. 30	Computer Lab
	Nov. 1	Chapter 8
12	Nov. 6	Chapter 9
	Nov. 8	Chapter 9
13	Nov. 13	Timeseries and Their Components (optional) Chapter 5
	Nov. 15	Project Presentation (optional)
14	Nov. 20	Prepare for the project
	Nov. 22	Thanksgiving
15	Nov. 27	Project Presentation
	Nov. 29	Project Presentation
16	Dec. 4	Project Presentation
	Dec. 6	Exam 2 (in class)
	Dec. 13	Final Exam

The instructor reserves the right to adjust the contents, requirements and schedule of this course.