ECON 4117: BUSINESS AND ECONOMIC FORECASTING
Syllabus for Spring 2015
9:30 a.m. – 10:45 a.m. MW
Friday 107

Instructor
Rob Roy McGregor
227C Friday Building
Phone 704-687-7639
Email rrmcgreg@uncc.edu

Office Hours
2:30 p.m. – 3:15 p.m. MW & 4:45 p.m. – 5:30 p.m. MW
If the hours established are not convenient, feel free to make an appointment with me for another time or to stop by at another time when I am in the office.

Textbooks and Other Resources
There is one textbook that is required for this course:


There is one textbook that is recommended for this course:


The appropriate readings for each topic from the required textbook and/or the recommended textbook are indicated on the course outline. Additional readings may also be assigned from time to time.

Course Objectives
Our principal focus will be on understanding how and when to apply various forecasting techniques and how to interpret the results. In this course, we will develop and apply selected time series and regression-based approaches to forecasting.

Software
We will use STATA for the forecasting applications that we will be doing in this course. STATA is available in the public student computer labs (Friday 216 and Friday 338). You can purchase STATA at a reduced rate through the STATA website (http://stata.com/order/new/edu/gradplans/gp-direct.html). The STATA/IC version is sufficient for the problem sets that you will be assigned in this course. A website maintained at UCLA (http://www.ats.ucla.edu/stat/Stata/) has a number of resources that are quite useful for working with STATA.

Means of Student Evaluation
Course grades will be determined by your performance on three in-class tests, four problem sets, and a comprehensive final examination. These components will have the following weights in the calculation of your final grade: 12% for each of the three tests, 10% for each of the four problem sets, and 24% for the comprehensive final examination.
As a general rule, make-up tests will **not** be given. The weight of missed tests will be added to the weight of the comprehensive final examination.

Problem sets must be typed and must be submitted in class on the assigned due date. A problem set may be submitted after the due date, but there will be a penalty of one letter grade for each day that the submission is late. Once a problem set has been graded and returned to the class, no late submission will be accepted, and you will receive a grade of zero on that problem set.

Letter grades for the course will be based on the following scale:

- A: 90% and above
- B: 80%-89.99%
- C: 70%-79.99%
- D: 60%-69.99%
- F: below 60%

**NOTE WELL:** Grades will be based solely on your performance on the three tests, the four problem sets, and the comprehensive final examination. Individual extra credit assignments will **NOT** be made.

### Problem Set Distribution & Due Dates

Problem Set #1 will be distributed on January 12 and will be due on February 4. Problem Set #2 will be distributed on February 16 and will be due on March 11. Problem Set #3 will be distributed on March 23 and will be due on April 8. Problem Set #4 will be distributed on April 20 and will be due on April 27.

On the day that a problem set is due, if the University is closed or is closing early (i.e., prior to the completion of the allotted time for this class), then the required problem set submission will be postponed until the next regularly scheduled class day on which the University is open for its normal hours.

### Test Dates

Test #1 will be given on February 11. Test #2 will be given on March 18. Test #3 will be given on April 15. The comprehensive final examination will be given at 8:00 a.m. on May 6 (the examination slot assigned for this course).

On the day of a test, if the University is closed or is closing early (i.e., prior to the completion of the allotted time for this class), then the test will be postponed until the next regularly scheduled class day on which the University is open for its normal hours.

### Academic Integrity

Students are required to abide by the UNC Charlotte Code of Student Academic Integrity. Violations of the Code will result in disciplinary action as provided in the Code. The Code is available from the Dean of Students Office or online at [http://www.legal.uncc.edu/policies/ps-105.html](http://www.legal.uncc.edu/policies/ps-105.html).

### Disability Accommodations

UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from the Office of Disability Services early in the semester. For more information about accommodations, you may contact the Office of Disability Services at 704-687-0040 or visit the Office of Disability Services itself in Fretwell 230.

### Other

The standards and requirements set forth in this syllabus may be modified at any time by the course instructor. Notice of such changes will be by announcement in class and by email.
The last day to withdraw from courses with grades of W is March 17.

There will be no class meeting on January 19 (Martin Luther King Day).

Spring break will be the week of March 2-7.

On any given class day, if I am more than 15 minutes late for class and you have received no notification from me to the contrary, you may assume that class is canceled.

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

Outline of Topics and Reading Assignments

I. Introduction to Forecasting
   
   Recommended: Wilson and Keating, Chapter 1

II. Review of Statistics
    
    Required: Wooldridge, Appendices B & C
    
    Recommended: Wilson and Keating, Chapter 2, pp. 64-83

III. Exponential Smoothing
     
     Recommended: Wilson and Keating, Chapter 3

IV. Moving Averages and Seasonal Adjustment
    
    Recommended: Wilson and Keating, Chapter 6, pp. 298-307

V. Review of Simple Regression Analysis
   
   Required: Wooldridge, Chapter 2

VI. Forecasting with Simple Regression
    
    Recommended: Wilson and Keating, Chapter 4

VII. Classical Time Series Decomposition
     
     Recommended: Wilson and Keating, Chapter 6, pp. 308-320

VIII. Review of Multiple Regression Analysis
      
      Required: Wooldridge, Chapters 3, 4, & 5

IX. Forecasting with Multiple Regression
     
     Required: Wilson and Keating, Chapter 5

X. Regression Analysis with Time Series Data
    
    Required: Wooldridge, Chapters 10, 11, & 12

XI. Advanced Time Series Topics
     
     Required: Wooldridge, Chapter 18
     
     Recommended: Wilson and Keating, Chapter 2, pp. 84-88
     
     Recommended: Wilson and Keating, Chapter 7

XII. Combining Forecast Results
     
     Recommended: Wilson and Keating, Chapter 8

XIII. Forecast Implementation
      
      Recommended: Wilson and Keating, Chapter 10