ECON 4117: BUSINESS & ECONOMIC FORECASTING
Syllabus for Spring 2016
9:30 a.m. – 10:45 a.m. MW
Friday 106

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 textbook readings for each topic are indicated on the course outline at the end of this syllabus. 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 applications that we do 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 useful for working with STATA.

Means of Student Evaluation
Course grades will be determined by your performance on two 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: 15% for each of the two tests, 10% for each of the four problem sets, and 30% for the comprehensive final examination.
Letter grades for the course will be based on the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>90% and above</td>
</tr>
<tr>
<td>B</td>
<td>80%-89.99%</td>
</tr>
<tr>
<td>C</td>
<td>70%-79.99%</td>
</tr>
<tr>
<td>D</td>
<td>60%-69.99%</td>
</tr>
<tr>
<td>F</td>
<td>below 60%</td>
</tr>
</tbody>
</table>

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

**Problem Sets**
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.

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.

**Tests**
Test #1 will be given on February 17. Test #2 will be given on April 6. The final examination will be given at 8:00 a.m. on May 11 (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**
All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Definitions and examples of plagiarism are set forth in the Code. The Code is available from the Dean of Students Office or online at [http://legal.uncc.edu/policies/up-407](http://legal.uncc.edu/policies/up-407).

Please be aware that faculty may ask students to produce identification at examinations and that faculty may require students to demonstrate that assignments completed outside of class are their own work.

**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 21. Students are expected to complete all courses for which they are registered at the close of the add/drop period. If you are worried about your ability to succeed in this course, then you should talk with me as soon as possible. University policy
allows students only a limited number of opportunities to withdraw from courses. It is important for you to understand the financial and academic consequences of course withdrawals. For more information, see the UNC Charlotte policy on withdrawals at http://provost.uncc.edu/policies/academic/withdrawals.

There will be no class meeting on January 18 (Martin Luther King Day).

Spring break will be the week of March 7-12.

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 assume that you have a basic knowledge of calculus and statistics, so we will not review these topics in class. The material that we need is covered in Appendices A, B, and C of Wooldridge (2013).

I. Introduction
   Recommended: Wilson & Keating, Chapter 1

II. Exponential Smoothing
    Recommended: Wilson & Keating, Chapter 3

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

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

V. Forecasting with Simple Regression
    Recommended: Wilson & Keating, Chapter 4

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

VII. Review of Multiple Regression Analysis
     Required: Wooldridge, Chapter 3, pp. 68-88 & pp. 93-104
     Required: Wooldridge, Chapter 4

VIII. Forecasting with Multiple Regression
      Recommended: Wilson & Keating, Chapter 5

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

X. Advanced Time Series Topics
    Required: Wooldridge, Chapter 18, pp. 639-646 & pp. 652-667
    Recommended: Wilson & Keating, Chapter 2, pp. 84-88
    Recommended: Wilson & Keating, Chapter 7

XI. Combining Forecast Results
     Recommended: Wilson & Keating, Chapter 8

XII. Forecast Implementation
     Recommended: Wilson & Keating, Chapter 10