



Syllabus

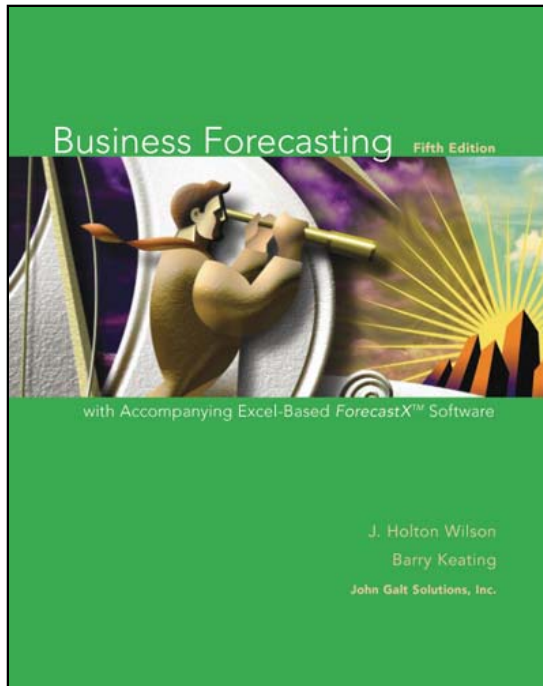
Spring 2008:

Instructor: Professor Barry Keating
Office: 226 Mendoza College of Business

Business Forecasting (FIN 70230)

Syllabus -- Spring 2008

[Jump to Assignment Sheet directly.](#)



Three items are needed to begin this course:

1) **Textbook:** J. Holton Wilson and Barry Keating. **Business Forecasting, Fifth Edition** (McGraw-Hill/Irwin, 2007) ISBN 0-07-320398-X

2) **ForecastX For Excel** (statistical software **included with the textbook** above and available in the campus clusters)

3) **XLMiner** (a required software package available [here](#))

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Assignment Sheet

Class# Date Topic Assignment

1 1/14 Introduction to Business Forecasting,

- Overview of the ForecastXTM computing package
- Overview of the XLMinerTM computing package
- Cryptography
- The Syllabus
- Chapter 1

2 1/16 The Forecast Process, Data Considerations, and Model Selection --Chapter 2 --

3 1/21 -- Moving Averages and Exponential Smoothing -- Chapter 3

- [Condiment I Problem](#) (do not include "events" in the analysis)
- [Condiment II Problem](#) (include "events" in the analysis)
- [Disinfectant I Problem](#) (do not include "events" in the analysis)
- [Disinfectant II Problem](#) (include "events" in the analysis)

4 1/23 -- Introduction to Forecasting with Regression Methods --Chapter 4

- [Cellular Telephone Adoption](#)
- [Color Television Adoption](#)

[Microelectronic Density Forecast - Use a Gompertz Model](#)

[World Nuclear Generating Capacity - Use a Logistics Model](#)

problem c4p4

problem c4p5

problems c4p6

problem c4p7

problem c4p8

problem c4p9

problem c4p10

problem c4p11

problem c4p12

problem c4p13

Create a "growth model" with original data.

5 1/28 -- Forecasting with Multiple Regression -- Chapter 5

problem c5p5

problem c5p6

problem c5p7

problem c5p8

problem c5p9

problem c5p10 (use the "[Economagic](#)" site to collect data)

problem c5p11

problem c5p12

problem c5p13

Create a causal multiple regression with original data.

6 1/30 -- Time-Series Decomposition --Chapter 6

problem c6p5

problem c6p6

problem c6p7

problem c6p8

problem c6p11

problem c6p6

problem c6p9

problem c6p12

7 2/4 -- Box-Jenkins (ARIMA) Type Forecasting Models -- Chapter 7

problem c7p5

problem c7p6

problem c7p8

problem c7p9

8 2/6 Midterm Examination

9 2/11 -- Combining Forecast Results - Chapter 8

problem c8p3

problem c8p4

problem c8p5

problem c8p6

10 2/13 -- Introduction to Data Mining with XLMiner™

k-Nearest Neighbor

11 2/18 -- Classification Practice: k-Nearest Neighbor

["Confusion Matrix" Explanation](#)

["Lift Chart" Explanation](#)

Use k-nearest neighbor analysis on the following data sets:

[ridingmowers](#)

[universalbank](#)

[accident](#)

12 2/20 -- Classification and Regression Trees Practice

Use regression tree analysis on the following data sets:

[Classification Tree Exercise](#)

[Gatlin2data.xls](#)

[Regression Tree Exercise](#)

[Boston Housing.xls](#)

13 2/25 -- -- Naive Bayes

Use Naive Bayes analysis on the following data sets:

[Naive Bayes Exercise](#)

[Gatlin2Data.xls](#)

[Naive Bayes Titanic Exercise](#)

14 2/27 Last Class Day -- Logistics Regression

Use Logistics Regression analysis on the following data sets:

[Rainy Days Logistics Regression](#)

[Mail Order Customers Logistic Regression](#)

Final Examination for Business Forecasting:

TBD

