

CLAREMONT GRADUATE UNIVERSITY

MATH 463, Spring semester 2009, Prof. Hedley C. Morris

COURSE INFORMATION

Course Objectives:

- To learn some basic knowledge of Financial time series data
- To study simple models and methods for analysis of Financial time series
- To assess market risk and to study methods for calculating Value at Risk (VaR)
- To understand proper use and limits of econometric methods in Finance.

Textbook: *Analysis of Financial Time Series* by Ruey S. Tsay (John Wiley, 2005), 2nd Ed., ISBN 0-471-69074-0.

Secondary Text: **Time Series Analysis and Its Applications: With R Examples, second edition, 2006, Robert H. Shumway and David S. Stoffer, Springer, ISBN: 0387293175**

Web: All data sets used can be downloaded from:

<http://wfs.cgu.edu/morrish/home/data/>

Handouts and assignments are posted on Web at

<http://wfs.cgu.edu/morrish/home/Math463.html>

(or click on the course name on my teaching web page)

Students are encouraged to check the course web site regularly for information concerning the course.

Office hours:

Mon/Tue/Wed mornings by appointment (email me)

My phone number (909)607-2683, My office: Math House North (710 College Ave.)

E-mail: Hedley.Morris@cgu.edu (the easiest way to make contact with me)

Grading:

Take Home Exam (30%), Final project (30%), Labs (35%) and Presentation (5%)

Computing and software:

Data analysis is an integral part of the course. This class primarily uses R. *Instructions for using R will be given and discussed. No prior knoweldge of R is required.* R is a free software.

Special notes:

R is free at <http://www.r-project.org> (with R-Metrics, R.2.1.1 or higher. Also, R needs the Ox package with G@RCH.