

# **Graduate Course Syllabus**

**FIN 690: Financial Econometrics** 

### **Course Prerequisites**

FIN-500 and ECO-500

### **Course Description**

This course focuses upon the fundamental statistical tools used in contemporary financial analysis both in academia and in the real world of finance itself. The course will involve both a theoretical development of the techniques as well as empirical applications. The applications will involve computer printouts with an emphasis on the SPSS statistical package and the EViews statistical package. The course will begin with a review and extension for the classical linear regression model, including its development in matrix form. The remainder of the course will then explore modern time-series econometrics, which is especially relevant for finance.

#### **Course Outcomes**

- Develop a student's competency in being able to apply classical regression techniques to the area of finance
- Develop a student's competency in being able to apply modern time-series econometrics to the area of finance
- Develop a student's knowledge and proficiency in the use modern statistical software
- Develop a student's ability to analyze and interpret the results of the computer printouts from the statistical software package
- Develop a student's ability to read and understand the empirical research done in the area of finance and related areas

### **Required Materials**

Using your learning resources is critical to your success in this course. Please purchase directly through SNHU's online bookstore, <u>MBS Direct</u>, rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the Help Desk, your advisor, and the instructor can provide you with support if you have problems.

Introductory Econometrics for Finance
Brooks, Chris
Cambridge University Press
3rd Edition
2014

ISBN: 978-1-107-66145-5

#### Additional software

EViews, Student Version, by Quantitative Micro
http://www.eviews.com/EViews8/EViews8Student/evstud8.html

### **Instructor Availability and Response Time**

Your class interaction with the instructor and your classmates will take place on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions discussion topic so that your questions and the instructor's answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours.

#### **Grade Distribution**

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	9	10	90
Problem Sets	10	25	250
Quizzes	9	35	315
Final Project	1	325	325
		Total Course Points:	1,000

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

# **University Grading System: Graduate**

		Total Points.	1000	
Grade	Numerical Equivalent	Points	Points Equivalent	
			Lower	Upper
Α	93-100	4.00	930	1000
A-	90-92	3.67	900	929
B+	87-89	3.33	870	899
В	83-86	3.00	830	869
B-	80-82	2.67	800	829
C+	77-79	2.33	770	799
С	73-76	2.00	730	769
F	0-72	0.00	0	729
I	Incomplete			
IF	Incomplete/Failure*			
W	Withdrawn			

\*Please refer to the <u>policy page</u> for information on the incomplete grade process.

# **Grading Guides**

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Assignment Guidelines and Rubrics section of the course.

# **Weekly Assignment Schedule**

All reading and assignment information can be found within each module of the course. Assignments and discussion posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and discussion posts for the remainder of the term are due by 11:59 p.m. of the student's local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module.

Module	Topics and Assignments
1	Getting Started
	Reading: Introductory Econometrics for Finance, Chapters 1 and 2
	1-1 Discussion: Notable Technical Points for Module One
	1-2 Final Project Milestone No. 1: Annotated Bibliography Source #1
	1-3 Problem Set 1
	1-4 Quiz: Module One
2	Linear Regression Models with One Independent Variable
	Reading: Introductory Econometrics for Finance, Chapter 3
	2-1 Discussion: Notable Technical Points for Module Two
	2-2 Final Project Milestone No. 2: Annotated Bibliography Source #2
	2-3 Problem Set 2
	2-4 Quiz: Module Two
3	Multiple Regression
	Reading: Introductory Econometrics for Finance, Chapter 4
	3-1 Discussion: Notable Technical Points for Module Three
	3-2 Final Project Milestone No. 3: Annotated Bibliography Source #3
	3-3 Problem Set 3
	3-4 Quiz: Module Three
4	Autocorrelation and Heteroskedasticity
	Reading: Introductory Econometrics for Finance, Sections 5.1-5.7
	4-1 Discussion: Notable Technical Points for Module Four
	4-2 Final Project Milestone No. 4: Annotated Bibliography Source #4
	4-3 Problem Set 4
	4-4 Quiz: Module Four
5	Non-Normal Residuals, Dummy Variables and Multicollinearity
	Reading: Introductory Econometrics for Finance, Sections 5.8-5.15
	5-1 Discussion: Notable Technical Points for Module Five
	5-2 Final Project Milestone No. 5: Annotated Bibliography Source #5
	5-3 Problem Set 5

	5-4 Quiz: Module Five
6	Basic Concepts of Time Series
	Reading: Introductory Econometrics for Finance, Sections 6.1-6.5
	6-1 Discussion: Notable Technical Points for Module Six
	6-2 Final Project Milestone No. 6: Annotated Bibliography Source #6
	6-3 Problem Set 6
	6-4 Quiz: Module Six
7	Autoregressive-Moving Average (ARIMA) Models
	Reading: Introductory Econometrics for Finance, Sections 6.6-6.13
	7-1 Discussion: Notable Technical Points for Module Seven
	7-2 Final Project Milestone No. 7: Annotated Bibliography Source #7
	7-3 Problem Set 7
	7-4 Quiz: Module Seven
8	Simultaneous Equations Models
	Reading: Introductory Econometrics for Finance, Sections 7.1-7.10
	8-1 Discussion: Notable Technical Points for Module Eight
	8-2 Final Project Milestone No. 8: Annotated Bibliography Source #8
	8-3 Problem Set 8
	8-4 Quiz: Module Eight
9	Vector Autoregression
	Reading: Introductory Econometrics for Finance, Sections 7.11-7.17
	9-1 Discussion: Notable Technical Points for Module Nine
	9-2 Final Project Milestone No. 9: Annotated Bibliography Sources #9-10
	9-3 Problem Set 9
	9-4 Quiz: Module Nine
10	Final Project
	10-1 Final Project Milestone No. 10: Final Project
	10-2 Problem Set 10

# **Attendance Policy**

Online students are required to submit a graded assignment/discussion during the first week of class. If a student does not submit a posting to the graded assignment/discussion during the first week of class, the student is automatically withdrawn from the course for non-participation. Review the <u>full attendance policy</u>.

# **Late Assignments Policy**

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the <u>full late assignment policy</u>.

# **SNHU College of Online and Continuing Education Student Handbook**

Review the student handbook.

# **ADA/504 Compliance Statement**

Southern New Hampshire University is dedicated to providing equal access to individuals with disabilities, including intellectual disabilities, in accordance with Section 504 of the Rehabilitation Act of 1973, Title III of the Americans with Disabilities Act (ADA) of 1990, and the ADA Amendments Act of 2008. The university prohibits unlawful discrimination on the basis of disability and takes action to prevent such discrimination by providing reasonable accommodations to eligible individuals with disabilities.

As soon as you become aware of a disability, we encourage you to contact the Online Accessibility Center (OAC) to discuss accommodations for which you may be qualified. Reasonable accommodations are established through an interactive process between the student and the OAC. Note that accommodations are not retroactive and that disability accommodations are not provided until an accommodation letter has been processed.

**Contact Information:** 

Online Accessibility Center

Phone: 866-305-9430 Email: oac@snhu.edu

For questions concerning support services, documentation guidelines, or general disability issues, visit the <u>Online Accessibility Center</u> website.

If you feel you have been denied appropriate disability-related accommodations, including appropriate auxiliary aids and services, you may file a grievance as described in the ADA/504 Grievance Policy found on the <u>Disability</u> Services webpage.

# **Academic Honesty Policy**

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the <u>full academic honesty policy</u>.

### **Copyright Policy**

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the <u>full copyright policy</u>.

# **SNHU College of Online and Continuing Education Withdrawal Policy**

Review the full withdrawal policy.

### **Southern New Hampshire University Policies**

More information about SNHU policies can be found on the policy page.

### **Assessment Calibration and Student Work Samples**

For the purpose of continuous improvement of our educational training, Southern New Hampshire University's College of Online and Continuing Education may, on occasion, utilize anonymous student work samples for internal professional development and staff training. If you have any questions or concerns, contact your advisor. If you would like to withdraw permission for use of your work, please contact the assessment calibration administrator at assessmentcalibration@snhu.edu. See this document for more information.