New Jersey City University
School of Business
Syllabus–FINC 665
3 credits
Monday 6:00 PM – 8:45 PM

COURSE TITLE:	FINC 665 – 2760 (Regression Analysis)
SEMESTER:	Spring 2020
CLASSROOM:	Harborside Plaza 2, Room 229
INSTRUCTOR:	Dr. Li Xu
OFFICE:	Harborside Plaza 2, Room 205G
OFFICE HOURS:	Friday, 5:00PM-6:00PM or by appointment
E-MAIL:	lxu@njcu.edu
PHONE NUMBER:	201-200-2145

Text & Materials (Required)

Chris Brooks. Introductory Econometrics for Finance, 4th Edition 2019, Cambridge University Press. (ISBN: 9781108436823)

Relevant Periodical Sources:
Journal of Finance
Journal of Financial Economics
Review of Financial Studies
Journal of Financial and Quantitative Analysis
Journal of Financial Econometrics

Relevant Online Materials:
Bureau of Labor Statistics **(www.bls.gov)**
Federal Reserve Economic Data **(FRED) (https://research.stlouisfed.org/fred2/)**
Bureau of Economic Analysis **(www.bea.gov)**
Current Population Statistics **(census.gov)**
Financial Accounts of the United States
(http://www.federalreserve.gov/releases/z1/Current/)

***Software*:**
Python, R, Stata, EViews, Excel or any Statistical software

Course Description

This course will provide students with a thorough understanding of regression analysis. It covers both the theory and application of regression analysis. It focuses on maximum likelihood and time series techniques. As well, this course also covers the interpretation of regression results and best practices for regression analysis.

Prerequisites

The prerequisite for this course is FINC 620 Statistical and mathematical methods for Data Science

Do not wait until the last minute to submit your homework, project assignments through Blackboard. I will not accept any excuse associated with computer/Blackboard System issues if it is not addressed by NJCU Information Technology and School of Business.

Ask IT staff for help in error messages and technical issues you may encounter.

Learning Objectives

Upon completion of this course, students will be able to:

A. **EXPLAIN** the empirical results presented in an academic, business and popular publications.
B. **ILLUSTRATE** the relationship between two or more variables.
C. **ANALYZE** regression results.
D. **SELECT** empirical results that are credible.
E. **FORMULATE** the design of an empirical study for various types of data.
F. **PREPARE** tables and graphs that illustrate an elucidate regression results.
G. **APPLY** regression techniques using statistical software.
H. **DEMONSTRATE** knowledge of mathematically based concepts in order to produce credible empirical results.
I. **USE** statistical software for data preparation and data analysis.
J. **DEVELOP** data processing, analytic and computer skills.
K. **EVALUATE** literature that uses multivariate regressions to make arguments.

Instructional Method

Lecture with Learning Management Systems (i.e. Blackboard).

Communication

Students should use NJCU email for official communication with the instructor. Group message will be sent via Blackboard. You may receive the group email from the instructor through NJCU or Non-NJCU email depending on what email account you provided to *GothicNet*. You should submit all your assignments via Blackboard. Do not email to your instructor directly or hand in physically if you are not requested. Check out your Blackboard announcement everyday! For prompt and continuous improvement of your grade, the up-to-date "running grade" is found on Blackboard.

Evaluation of Students

Your performance will be evaluated based on: project, assignments and exams.

Assignments	10%
Project	40%
Midterm Exam	25%
Final Exam	25%
	100%

Note: Assignments, evaluation, policies and procedures, etc. can be adjusted by instructor.

Project

This is a group project up to three members. You can choose any topics you are interested in either from any textbooks or research papers. But you have to give a clear references for anything you use. It is expected that you will be able to conduct a well thought out analysis. This case contributes 50% to your final grade: 20% for presentation and 15% for the report and 15% for participation of others presentation.

Presentation

Oral presentation consists of a 20-minute presentation followed by 10-minute for Q & A session and/or classroom discussion. All presentations should incorporate the use of attractive, effective PowerPoint slides.

Appropriate dress for presenters is business casual.

You should assume the role of consultants employed to present your analysis and recommendations to the assigned company's senior management—you do NOT have the option of ignoring this assigned role.

Your grade on the presentation will be based on six factors:

1. The clarity and thoroughness with which you identifies and articulates the problems—**12%**,
2. The caliber (depth and breadth) of your analysis of the problems and demonstrated ability to use the concepts and tools of strategic analysis in a competent fashion—**30%**,
3. The breadth, depth, and practicality of your solutions, caliber of supporting arguments—**20%**,
4. The caliber of your PowerPoint slides—**15%**,
5. The degree of preparation, professionalism, energy, enthusiasm, and skills demonstrated in delivering your part of the presentation—**15%**, and
6. Your answers to the questions posed by the class—how well you defend and support your analysis during the Q&A period—**8%**.

Assignments

After each lecture, you will be asked to solve problems from the textbook and others given by the instructor. Chapter notes and PowerPoint slides must be reviewed each week. All assignments and due dates are listed below tentatively and will be updated on Blackboard.

Late Assignments

A late assignment will be accepted after due date with 10% deduction per day from the score given for each work (set up on Blackboard).

Midterm and Final Exam

The midterm exam and final exam location and time is TBD.

Grading Scale: (Based on University Criteria)

Numerical grades	are equivalent to:	
93 – 100	A	(4.0)
90 – 92	A-	(3.7)
87 – 89	B+	(3.3)
83 – 86	B	(3.0)

80 – 82	B-	(2.7)
77 – 79	C+	(2.3)
73 – 76	C	(2.0)
70 – 72	C-	(1.7)
60 – 69	D	(1.0)
Below 60	F	(0.0)

Course Outline

The schedule and procedures described in this course outline are subject to change depending on the needs of the class.

Course Schedule

Week	***Topic***	***Learning Outcomes***
1	Introduction and mathematical foundations	**A, B, C**
2	Statistical foundations and dealing with data	**A-J**
3	A brief overview of the classical linear regression	**A-J**
4	Further development of classical linear regression	**A-J**
5	**President's Day, No Class**	
6	Classical Linear Regression Model Assumptions and Diagnostic Tests	**A-K**
7	Midterm	**A-D**, **H, K**
8	Univariate Time-Series Modelling and Forecasting	**A-J**
9	Multivariate Models	**A-J**
10	Modelling Long-Run Relationships in Finance	**A-J**
11	Modelling Volatility and Correlation	**A-J**
12	Modelling Volatility and Correlation	**A-J**
13	Switching and State Space Models	**A-K**
14	Project Presentation	**A-K**
15	Final Exam	**A-D**, **H, K**

Academic Integrity

New Jersey City University (NJCU) is committed to nurturing the growth of intellectual reasoning, academic and professional values, individual ethics and social responsibility in its students. Academic integrity is central to this growth and is defined as a commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect and responsibility. From these values flow principles of behavior that enable academic communities to translate ideals into action.

An academic community of integrity advances the quest for truth and knowledge by requiring intellectual and personal honesty in learning, teaching, research and service.

Academic integrity is the obligation of all members of the NJCU community: students, faculty and administration. Maintaining a high level of integrity is not a passive act. Academic

dishonesty must be actively deterred; apathy or acquiescence in its presence is not a neutral act.

All members of the university academic community at NJCU have an obligation to be informed about:

A list of what constitutes acts of academic dishonesty, but not limited to:

- The penalties imposed for acts of academic dishonesty and the consequences of these penalties.
- The process by which penalties are imposed.

The University maintains that all students are expected to embrace the highest standards of academic integrity in their course work. Any violation of such may be subject to a penalty based on the infraction that may include a reprimand, reduction in grade, failing grade, suspension or dismissal from the University.

Statement Regarding Civility

Comments made, shared, and discussed in the classroom should demonstrate respect for fellow student colleagues. The instructor will not tolerate swearing and/or derogatory statements in the classroom environment. Everyone is entitled to his or her opinions. The Professor has the right to ask you to leave the classroom. It is up to you to contact the instructor to schedule an appointment to discuss such an incident prior to returning to the classroom.

Disability Students:

If there is any student in this class who has special needs because of learning disabilities, or other kinds of disabilities, please feel free to discuss your needs with me. For more information about the ADA and academic accommodations of adjustments, contact the Office of Specialized Services (OSS) at 201-200-3138.

Statement of Sensitivity

Due to the nature of some of the course content some students may find some topics sensitive. All material in the curriculum is considered college health information. If a topic or material is sensitive to you, please feel free to speak to your professor.

PLEASE TURN OFF ALL CELL PHONES AND PAGERS PRIOR TO CLASS.

Bibliography

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