

York University
Department of Economics
Faculty of Liberal Arts and Professional Studies
Winter 2022
AP/ECON 4140N 3.0
“Financial Econometrics”

Instructor	Shervan Vafa
Contact	E-mail: svafa@yorku.ca
Office Hours	By appointment through Zoom
Lecture Time	Please note that this is an online course. The course, including the submission of assignments, participation/discussion and test-taking, might take place partially on the course’s website.
Lecture Location	e-course + DB 0010
Course Webpage	Students MUST check the course website for regular announcements: https://www.yorku.ca/eclass/ . All lecture videos, if any, will be posted to the website, along with practice questions and Python codes.
Course Description	This course is an introduction to financial econometrics for students who have taken Econ 3210 or Econ 3500. Background knowledge of finance is not required. The objective of the course is to explain, in simple terms, the use of selected statistical methods and econometric models in finance. The content of the course includes simple static and dynamic models of financial returns, ARIMA models and forecasting, Multivariate models, and ARCH models. All theoretical concepts introduced in this course will be illustrated in class by various empirical examples. Additional examples will be assigned as homework. The assignments (if any) will require only basic programming skills in R or Python.
Textbook	Required: Chris Brooks, “Introductory Econometrics for Finance”, 2019, Cambridge, ISBN: 978 – 1108436823. Recommended: Ruey S. Tsay, “Analysis of Financial Time Series”, 2010, Wiley, ISBN:978 – 0470414354.

Evaluations

- There will be one mid-term test worth 40% and the exam is worth 60% of the final grade:

Mid-term	40%
Exam	60%
Total	100

- Mid-term Test will be held during the lecture:
 - **Wednesday February 16th, 2022 7-9pm**
- Mid-term test will be 120 minutes.
- A grade of zero will be awarded to students who do not write the test, unless an appropriate and convincing note is received within one week of the missed test (explaining why the test was missed).
- The note must clearly state that on the date of the test, the student was too sick to write the test. Illness before the test is not enough grounds for missing the test.
- I will review each sick note to determine whether there are enough grounds for a student to be excused from a test. Part of this review process may include meeting with the student, and/or following up with the physician.
- There will not be a make-up midterm. Instead, the exam grade will count towards the final grade.
- If a student wishes to appeal a grade, he/she must provide a written explanation of why they believe their grade is mistaken and submit it to the TA within one week of the test being returned to the class. Note that the entire test will likely be re-graded, and the appealed grade can be lower or higher than the original grade.

Important Dates:

- Last date to enroll in the course without the instructor's permission: **January 23rd**
- Last date to enroll in the course with the permission of the instructor: **February 7th**
- Last date to drop the course without receiving a grade: **March 18th**
- Examination period: **April 12th – 19th**

Tentative Course Schedule

Module	Topic	Chapter
1	Introduction and Mathematical Foundations	1
2	Statistical Foundations and Dealing with Data	2
3	Victoria Day	-
4	Statistical Foundations and Dealing with Data	2
5	A Brief Overview of the Classical Linear Regression Model - 1	3
6	A Brief Overview of the Classical Linear Regression Model - 2	3
7	Midterm	-
8	Further Development and Analysis of the Classical Linear Regression Model	4
9	Classical Linear Regression Model Assumptions and Diagnostic Tests - 1	5
10	Classical Linear Regression Model Assumptions and Diagnostic Tests - 2	5
11	Univariate Time-Series Modelling and Forecasting - 1	6
12	Univariate Time-Series Modelling and Forecasting - 2	6
13	Modelling Volatility and Correlation	9

Misc.

IMPORTANT: I take your feedbacks very seriously and look forward to your suggestions for improving the course. Please do not hesitate to come forward with criticism and new ideas. I would like you to “enjoy” the course first and foremost, to have a pleasant learning experience and get a good mark at the same time.

Important Policies

In this course, we strive to maintain academic integrity to the highest extent possible. Please familiarize yourself with the meaning of academic integrity by completing SPARK’s [Academic Integrity module](#) at the beginning of the course. Breaches of academic integrity range from cheating to plagiarism (i.e., the improper crediting of another’s work, the representation of another’s ideas as your own, etc.). All instances of academic dishonesty in this course will be reported to the appropriate university authorities and can be punishable according to the [Senate Policy on Academic Honesty](#). All students are expected to familiarize themselves with the following information:

- [Student Rights & Responsibilities](#)
- [Academic Accommodation for Students with Disabilities](#)

Technical requirements for taking the course

Students will need a computer and highspeed internet to access the course material. In addition, students must have [Anaconda](#) installed. Here are some useful links for student computing information, resources and help:

[Student Guide to Moodle](#)

[Zoom@YorkU Best Practices](#)

[Zoom@YorkU User Reference Guide](#)

[Computing for Students Website](#)

[Student Guide to eLearning at York University](#)

Private Third-Party Tutoring Companies, Academic Honesty and Support Resources

Many private, third-party tutoring companies advertise their services to YorkU students. One way you can help eliminate these advertisements is by changing your eClass profile settings to private (see instructions below). Some of these private companies claim to be affiliated with, or recognized and supported by, York University. Some also claim to help you by providing you with quiz and test answers, suggesting that this practice is safe and permitted by York. These claims are **not** true. York University has not officially recognized or endorsed any third-party tutoring service. When you are provided with quiz, test and exam answers, you run the risk of violating the **university's academic honesty policy**. Students have been caught using these services to cheat and gain unfair advantage over honest students. The cheating students and "tutors" have received academic dishonesty punishments ranging from failing courses, to being expelled, to losing their YorkU degrees. Officially supported resources to help students learn course material will be provided by YorkU officials, such as your professors and your department. These services are offered at no cost to you as a student. Your professor will likely provide weekly office help hours to meet with students and if you are a first- or second-year student and would like help with course material, make sure you join one of our weekly **Peer Assisted Study Sessions (PASS)**. If you require help with any of your numeracy-related courses that involve math, statistics or Excel, drop in online to meet with one of our peer tutors at the **Student Numeracy Assistance Centre at Keele (SNACK)**. If you are ever unsure of whether a resource is allowable or endorsed by YorkU, please feel free to email the Department of Economics at lapsecon@yorku.ca and they would be happy let you know.

To hide your email address in eClass: Step1: Click your name on the top-right of the eClass website, then click "Profile" on the drop-down menu; Step 2: Under "User details" click "Edit profile"; Step 3: From the "Email display" drop-down menu choose "Hide my email address from non-privileged users"; Step 4: Scroll to the bottom of the page and click on the "Update profile" button.