

# ECON 468 A01 Financial Econometrics

Winter Session: 2025 09 - CRN 11135, 1.5 units, Contact hours: 3 per week

Course schedule: TWF 1:30-2:20 in Elliot 160

## UVic Land Acknowledgement

We acknowledge and respect the Lə $\mathring{k}^w$ əŋən (Songhees and X $^w$ sepsəm/Esquimalt) Peoples on whose territory the university stands, and the Lə $\mathring{k}^w$ əŋən and  $\underline{W}$ S $\mathring{A}$ NE $\acute{C}$  Peoples whose historical relationships with the land continue to this day.

Instructor Name: Dr. Ken Stewart

Office: BEC 352

**E-Mail**: Please see the section on *Email Correspondence* toward the end of this course outline.

Office Hours: TWF 11:00-12:00 in person, or by appointment.

Teaching Assistant: The TA will be announced on Brightspace when one is assigned.

# Teaching and assessment modality

This course is face to face and all exams are held in person. If you wish to be eligible for a classroom participation component to the course grade, you should subscribe to the iClicker Cloud app on your mobile device.

#### Course Content

An introduction to time series econometrics through the medium of financial applications. The lognormal model of asset returns and the random walk model of stock prices. Variance ratio tests of the random walk/martingale hypothesis. Stationary versus nonstationary stochastic processes. Autocorrelations and tests for temporal dependence. Trend stationary versus difference stationary models of nonstationarity. ARMA models for stationary variables. GARCH models of volatility clustering. Unit root tests and cointegration.

# Course prerequisites/corequisites

One of Econ 305 or Com 240; one of Econ 345, Econ 365, Stat 350, or Stat 353. Econ 435 recommended.

#### **Textbook**

There is no textbook. Teaching materials will be provided via *Brightspace*. The only for-purchase resource that you will need is an iClicker Cloud subscription. See the information below on the role of the iClicker classroom response system in the course.

## **Brightspace**

*Brightspace* will be our learning management system through which assignments, teaching materials, TA office hours, and other information will be disseminated. This includes a *Log of Class Progress* that I update daily indicating the topics of each lecture and how you should prepare for the upcoming class.

*Brightspace* has a gradebook, allowing you to verify that your assignment and exam grades and clicker scores have been recorded correctly. The *Brightspace* gradebook is the final and definitive grade record that is used to calculate your course grade. If a grade for any item of evaluation does not appear correctly, you should notify me promptly.

## **Learning Outcomes**

In this course you will learn how to analyze some of the most common types of financial data that are observed over time. Your learning will occur primarily through weekly assignments. The role of the lectures is to motivate and support your work on those assignments. Each assignment will have its learning outcomes stated.

# Course Structure, Assessments, and Grading

#### Learning components

The course structure will follow the topics list of the Calendar course description. For a detailed indication of our intended progress through the Handouts relating to these topics, see the Table of Contents posted to *Brightspace*.

#### Use of Al

I discourage the use of AI for completing the assignments. If you rely on AI to help with your writing, you will never learn how to express yourself accurately and succinctly. This will limit your ability to advance in any professional career. At worst, AI may even cause you to express yourself incorrectly.

One reason for using the econometrics software EViews in this course is that, relative to other leading software such as R and Stata, it is relatively Al-impervious. So, when you work hard to obtain your EViews output from scratch for an assignment, you can be reasonably confident that other students are not obtaining theirs using Al shortcuts.

#### **Grading Scheme**

Your course grade will be determined according to the best of the following two grading schemes. This will be done automatically at the end of the course; no action on your part is necessary. Essentially, Grading Scheme 2 allows you to compensate for weak exam grades with a stronger class participation grade if it turns out to be in your interest to do so.

	Scheme 1	Scheme 2			
Assignments	40%	40%	(weekly)		
Midterm Exam	20%	15%	(Wednesday October 22)		
Final Exam	40%	30%			
Class participation	0%	15%	(Assessed with iClicker Cloud)		

The Faculty of Social Sciences grading policy adopted in 2017 prohibits instructors from releasing final exam grades or course grades until after course grades are submitted to Records Services by the Department. Be aware that the posting of your final exam grade to Brightspace will be delayed for this reason.

#### Mandatory/Essential Course Components

Except as may be prescribed by broader university policies, no component of the evaluation in this course is mandatory. To pass the course you need only achieve an aggregate grade of at least 50%, according to one of the above grading schemes. Consequently, only the final exam is eligible for deferment, upon approval of a formal *Request for Academic Concession* (RAC).

#### Dates of Assessments, Due Dates of Assignments

**Assignments** are normally due by noon Thursday. I anticipate that there will be approximately 10 assignments.

**Midterm**: The midterm exam is scheduled for Wednesday October 22. It will cover the lecture material and assignments up to that date.

**Final exam**: There will be a two-hour final exam held during final exam period.

#### **Grading Scale**

A+	Α	A-	B+	В	B-	C+	С	D	F or N
90-100	85-89	80-84	77-79	73-76	70-72	65-69	60-64	50-59	0-49

Students should review the University's more detailed <u>summary of grading</u>.

#### Assignments

Assignments are submitted to the box labelled *ECON 468 A01*, located in the corridor by the Economics Department office on the third floor of the Business & Economics Building. For your grade to be properly recorded, be sure to indicate clearly your name and student number on your assignment. It should also indicate *ECON 468 A01*. In their haste students sometimes inadvertently put their assignment in the wrong box. Even if it has your name and student number, another instructor receiving your assignment will have no idea how to redirect it unless the course is also indicated.

The assignments in this course play a central role in helping you learn the material and prepare for exams. You may work jointly with other students on assignments. However, the assignment solutions

you submit for grading should be your own work, independently written up. Identical date/time markings on Eviews output indicates that you have violated this policy.

**Assignment Sketch Answers** are posted to *Brightspace* following the return of graded assignments. Questions about the grading of an assignment should be raised promptly during the TA's next office hour, while the grading scheme is fresh in their mind. The TA's office hours are given on *Brightspace* and are solely for the purpose of answering questions about assignment grading. Old assignment grades will not be revisited at the end of the term.

#### Class Participation Grade

The Class Participation component of Grading Scheme 2 is determined with the iClicker Cloud system, which is the UVic-endorsed and supported classroom response system:

#### https://www.uvic.ca/systems/services/learningteaching/iclicker/index.php

It will be used to record your responses to questions that are occasionally posed in class. You must create an iClicker Cloud subscription according to the instructions given at

#### https://mhe.my.site.com/iclicker/s/article/How-to-Create-an-iClicker-Student-Account

It offers a two-week free trial should you decide to drop the course.

We will begin using iClicker Cloud on Friday September 5. Your class participation score for the term will be the total of all correctly answered questions, so all questions are worth the same amount. However, up to 4 incorrect or unanswered questions over the term will not prevent you from earning full points. For example, suppose that 54 questions are asked during the term and that you correctly answer 40 of them. Then your class participation grade out of 15 is  $15 \times 40/(54-4)=12$ . Only 50 questions would have to have been answered correctly to achieve full points of 15/15.

It is your responsibility to ensure that you have iClicker Cloud access through your mobile device, typically your phone. Lack of access because, say, you forgot to charge your phone, is covered through the "four forgiven questions" rule.

The purpose of the iClicker system is to recognize attendance and alertness to the lecture material. You cannot expect to be so rewarded if, for whatever reason, you are unable to attend or participate. This includes medical excuses and the many other legitimate reasons why students are sometimes absent. You should hold your "four forgiven questions" in reserve to cover such contingencies.

For the same reason, it is not acceptable to submit iClicker responses on behalf of other students. You should only be using your own iClicker Cloud access.

Clicker questions are **not** posted subsequently. If you wish to have a record of them for studying, you should record them as they are posed.

#### **End-of-term Travel**

Students are advised not to make work or travel plans until after the examination timetable has been finalized. Students who wish to finalize their travel plans at an earlier date should book flights that depart after the end of the examination period. Students do not qualify for an academic concession if travel plans conflict with the examination.

#### Waitlist Policies

- Instructors have no discretion to admit waitlisted students or raise the cap on the course.
- Students on the waitlist should discuss with the instructor how to ensure they are not behind with coursework in the event they are admitted.
- Registered students who do not participate as specified in this outline during the first 7 calendar days from the start of the course may be dropped from the course.
- Registered students who decide not to take the course are responsible for dropping the course and are urged to do so promptly out of courtesy toward waitlisted students.
- Waitlist offers cease after the last date for adding courses irrespective of published waitlists.

## **Academic Integrity**

Academic integrity requires commitment to the values of honesty, trust, fairness, respect, and responsibility. Students are expected to observe the same standards of scholarly integrity as their academic and professional counterparts. A student who is found to have engaged in unethical academic behaviour, including the practices described in the <u>Policy on Academic Integrity</u> in the University Calendar, is subject to penalty by the University.

The University reserves the right to use a plagiarism software to detect violations of academic integrity.

## **Appeals**

Depending on the nature of your concern, the order in which you should normally try to resolve the matter is:

- 1. Me, the course instructor
- 2. the Associate Chair: econassoc@uvic.ca
- 3. the Associate Dean of Academic Advising
- 4. the Senate.

If you're seeking a formal review of an assigned grade, you should also consult the regulations in the academic calendar regarding <u>review of an assigned grade</u>."

# University Policies and Statements

This course is executed in a manner consistent with these University statements and policies.

- a. University Calendar Section "Information for all students"
- b. Creating a respectful, inclusive and productive learning environment
- c. Academic Integrity
- d. <u>Academic Concession Regulations</u>, <u>Academic Concession and Accommodation</u>, Academic Accommodation Policy AC1205
- e. Accommodation of Religious Observance
- f. Student Conduct
- g. Non-academic Student Misconduct
- h. Accessibility
- i. <u>Diversity / EDI</u>
- j. Equity statement
- k. <u>Sexualized Violence Prevention and Response</u>

I. Discrimination and Harassment Policy

#### Resources for students

- a. Student wellness
- b. Centre for Accessible Learning
- UVic Learn Anywhere. UVic Learn Anywhere is the primary learning resource for students that
  offers many learning workshops and resources to help students with academics and learning
  strategies.
- d. <u>Library</u> resources
- e. Centre for Academic Communication (CAC)
- f. Learning Strategies Program (LSP)
- g. Academic Advising
- h. Economics Undergraduate Advising: <a href="mailto:ecadvice@uvic.ca">ecadvice@uvic.ca</a>
- i. Student Awards and Financial Aid
- j. International Student Advising
- k. Indigenous student services (<u>ISS</u>)
- I. <u>Student groups and resources</u> including UVic <u>Ombudsperson</u>

# Student Experience of Learning (SEL) Survey

I value your feedback on this course. Towards the end of term, you will have the opportunity to complete a confidential SEL survey regarding your learning experience. The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future.

# Classroom Etiquette

You will find that it is my normal practice to begin class promptly on the half-hour and lecture for the full 50 minute class period. Students are expected to make whatever arrangements may be necessary in their private lives to ensure that they are seated in class prior to the beginning of lecture. It is not acceptable to disturb the class by habitually arriving late.

If you have a question about the lecture material that you have not had time to raise during a lecture, please do not attempt to raise it with me individually at the end of class. There are only 10 minutes between classes and I am obliged to clear the room promptly out of consideration to the incoming instructor. Instead see me during my office hours or raise your question at the beginning of the next class, when I often invite questions. My favourite way to introduce a new lecture is by responding to questions about the previous one.

For the same reason, there is no point attempting to discuss personal matters such as illness accommodation in class. See me during my office hours.

Except in extraordinary circumstances, please come to class prepared to remain in attendance for the entire class period. It is not appropriate to come and go from the classroom at leisure during a lecture. If unusual circumstances require you to leave class early, please sit near the door and depart as inconspicuously as possible. Once you have left the classroom, do not return that day.

In general, observe the Scholastic Golden Rule: Do not disturb or distract your fellow students or the instructor. Specifically, do not chit-chat with your neighbours or consume food or beverages. It would also be appreciated if you would not wear headgear that interferes with eye contact.

Laptops, tablets, and phones are to be in use only for class-related purposes, such as notetaking and use of the iClicker Cloud system.

Let good manners, civility, and mutual respect guide your behaviour.

#### Attendance

If, for whatever reason, you are unable to attend class, you are responsible for making up the missed material as best you can. In doing so, be guided by the *Log of Class Progress*, which provides a brief indication of what was covered and cites the relevant teaching resources. Although, as always, you are welcome to raise specific questions about the course material, neither the instructor nor the grader can provide you with a personal tutorial on the missed material. Similarly, and consistent with the following email policies, any questions about that material should be raised in person during office hours rather than by email.

## E-mail Correspondence

My email address is **kstewart@uvic.ca**. This should normally only be used for personal and confidential correspondence, such as to tell me that a health emergency prevents you from submitting an assignment on time.

Email messages are not a useful means of transmitting other types of information, in particular the following.

Questions about course material or assignments are best raised in class or during my office hours. They cannot be answered effectively with email due to, among other things, the unavailability of diagrams and technical notation.

**Questions about course administration** such as the arrangements governing assignments and exams. These matters are normally discussed in class and that is the best place for asking questions about them, so that other students can benefit from the clarification offered. I do not duplicate by email information that has been related in class or posted to *Brightspace*.

As a rule, I do not reply to "generic" emails; i.e., messages that anyone could have written, as opposed to ones that relate to your individual role in the course. I do not normally respond to email queries about, for example, the content or format of exams, the progress of grading, when final grades are likely to be available, and so on. Remember that instructors are guided by the Golden Rule of Teaching, which is "Do not show favouritism to one student by doing something for them that you would be unwilling to do for the class as a whole." Before sending an instructor an email, ask yourself: Would it be reasonable to expect the instructor to answer the same message from everyone in the class? If not, you are unlikely to receive a reply.