

ECONOMICS 546 (Section A01)

*Themes in Econometrics*

Course Registration Number: 21112

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BEC 352  
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Spring 2023

*We acknowledge with respect the Lekwungen peoples on whose traditional territory the University of Victoria stands, and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day.*

**Class Time and Location:** TWF 8:30–9:20 in BEC 363.

**Office Hours** TW 12:00–1:00, or by appointment.

**Email** Please see the section on email correspondence toward the end of this document.

**What is Econ 546 about?** In making your course selections this term, including among the available econometrics electives, you should reflect on your interests and the methods that you anticipate being relevant to your essay/thesis research.

As one of these optional electives, in terms of its content 546 is not just more of the same kinds of material that you studied in 545. Instead, and as the title *Themes in Econometrics* is intended to suggest, 546 goes “under the hood” of the methods in 545. It will deepen your understanding of the fundamental principles underlying the methods you have seen in 545, principles and themes that include the following. First, a more systematic development of large sample properties. How is a property such as consistency defined and established? How about asymptotic efficiency? How do these relate to finite-sample properties such as unbiasedness and small-sample efficiency? A second theme is estimation principles: the method of maximum likelihood and the generalized method of moments. How do they relate to the method of least squares with which you are familiar?

As you can begin to sense, 546 is more theoretical than 545. The goal is to provide you with a more unified understanding of some of the general principles that encompass many estimation and testing methods. This unified understanding is important for students preparing to take the PhD econometrics comprehensive exam, but may or may not be the most useful course selection for terminal Master’s students.

Econ 546 is therefore not simply a continuation of 545, picking up where 545 left off. Instead 546 develops these principles and themes by, initially, returning to some of the most basic ideas of population distributions, statistics, and sampling distributions.

Most of the assignments in 546 are theoretical, only a few empirical. But, for the few that involve data analysis, the econometrics software EViews will be used. EViews is available in both the campus computer labs and the Economics Department’s Grad Computer Lab.

The textbook will be Greene, *Econometric Analysis*. I find the 7th edition to be the most convenient one to reference—in particular his Part III on Estimation Methodology, especially Chapter 14 on Maximum Likelihood Estimation. This will occasionally be supplemented with my own materials.

Other econometrics courses being offered this term that can be taken for graduate credit are the following.

- Econ 548, *Applied Econometric Modelling*, taught by Tao Wang.
- Econ 468, *Financial Econometrics*, taught by Ken Stewart.

**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 summarizing the content of each lecture and how you should prepare for the upcoming class.

Brightspace also has a gradebook, allowing you to verify that your assignment and exam grades 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.

**EViews** is the econometrics software used in this course. Assignment questions are based on the capabilities of this package, and exams will assume that you are familiar with interpreting EViews output. Consequently you may not submit output from other software.

**Topics coverage** The topics I hope to cover this term are as follows. The associated readings and references to Greene will be provided week-by-week with the assignments.

1. The normal distribution
2. The method of moments
3. Asymptotics and the method of moments
4. Maximum likelihood estimation
5. Scores, Hessians, and information
6. Maximum likelihood and regression models
7. Estimation of binary dependent variable models
8. Marginal effects in binary dependent variable models
9. The GMM interpretation of IV estimation

**Grading** Your course grade will be determined according to the following evaluation and weights.

Assignments	40%	(weekly)
Midterm exam	20%	(Wednesday February 15)
Final exam	40%	

Records Services converts your percentage grade to a letter according to the following scale.

90 – 100	A+	77 – 79	B+	65 – 69	C+
85 – 89	A	73 – 76	B	60 – 64	C
80 – 84	A–	70 – 72	B–	50 – 59	D
				0 – 49	F

The Faculty of Social Sciences grading policy adopted in 2017 prevents 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.

**Assignments** are submitted to the box labelled **ECON 546 A01**, located in the corridor by the Economics Department office on the third floor of the Business & Economics Building. In order 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 546 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.

## Course Policies

This course adheres to the *Undergraduate Course Policies* of the Department of Economics, which may be obtained from the department's website, and which deal with issues such as: academic concessions, academic integrity (plagiarism and cheating), attendance, grading, inclusivity and diversity, late adds, late assignments, repeating courses, review of an assigned grade, sexualized violence prevention and response, students with a disability, term assignments and debarment from exams, travel plans, and waitlists.

It is particularly imperative that you be aware of the following policies.

**Examinations** Attendance at all scheduled examinations is mandatory. Consideration for missed examinations will be given only on the basis of documented illness, accident or family affliction, and for no other reasons. In the event of a missed final examination, students are advised to follow the procedures outlined in the University Calendar.

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. There will be no special accommodation if travel plans conflict with the examination.

**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 *Policy on Academic Integrity* in the University Calendar, is subject to penalty by the University. Note in particular that this policy defines cheating to include "copying the answers or other work of another person" and "sharing information or answers when doing take-home assignments, tests or examinations except where the instructor has authorized collaborative work."

In addition, other resources provide useful guidance on Academic Integrity.

- The *What is Plagiarism?* page of the library's **Get help** page.
- The *Student Code of Conduct* of the Faculties of Science, Humanities, and Social Science.

**Instructor Intellectual Property** Instructor-created teaching materials, including exams, assignments, and answer keys, are the intellectual property of the instructor and subject to copyright, and should be treated as such. They are made available to you solely for instructional purposes, and are not to be shared or distributed in hardcopy, electronically, or otherwise. Doing so violates the *Policy on Academic Integrity*.

**University Policy on Human Rights, Equity and Fairness** The University is committed to promoting, providing and protecting a positive, supportive and safe learning and working environment for all its members. See *General University Policies* on the university website for more information.

**Sexualized Violence Prevention and Response** UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. Students are encouraged to learn more about how the university defines sexualized violence and its overall approach by visiting [www.uvic.ca/svp](http://www.uvic.ca/svp). If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Contact [svpcoordinator@uvic.ca](mailto:svpcoordinator@uvic.ca).

## Accessibility and Health Resources

**Centre for Accessible Learning** Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, you are free to approach me; however, you must register with the Centre for Accessible Learning (CAL) for formal arrangements to be made. The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

**Health Services** University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives.

**Counselling Services** Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students.

**Support Connect** - a 24/7 mental health support service for students

- Toll-free (calls from North America): 1-844-773-1427
- International collect calls: 1-250-999-7621

**Elders' Voices** The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students, staff, faculty and administration in Indigenous ways of knowing and being.

## Course Experience Survey (CES)

I value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) 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.

When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to the CES log-in. You will use your UVic NetLink ID to access the survey, which can be completed on your laptop, tablet or mobile device. I will remind you nearer the time, but please be thinking about this important activity, especially the following three questions, during the course.

- What strengths did your instructor demonstrate that helped you learn in this course?
- Please provide specific suggestions as to how the instructor could have helped you learn more effectively.
- Please provide specific suggestions as to how this course could be improved.

**Email correspondence** My email address is [kstewart@uvic.ca](mailto:kstewart@uvic.ca). However 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* 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.