ECON 345 A03 Applied Econometrics  
CRN 11138  

Winter Session: First Term 2021 09  

Instructor: Brooklynn Comish-Trimble  
E-Mail: trimbleb@uvic.ca  
Office: BEC 306  
Zoom Office Hours: Tuesday 9:30am-11:00am (except for Nov. 16th – where office hours will be 2:00pm-3:30pm)  
Lectures: Mondays, Thursdays 10:00am-11:30am Elliott 061  
Labs: See online registration  
Senior Lab Instructor: Nicholas Karlson, nkarlson@uvic.ca  

Course Content  
An intuitive development of the basic concepts and techniques in econometrics. The emphasis is on the application of econometric concepts and techniques in analyzing economic phenomena. This course provides a general introduction to the practice of econometric analysis. While motivated by intuition and applications, the presentation of estimators and tests will be primarily mathematical in nature. We will focus largely on multiple regression techniques in cross-sectional data analysis (as well as time series analysis), considering common issues and problems that arise in applied empirical social science research. Students will learn R — a freely available and widely used statistical programming language — to analyse and plot data, draw inference, and compare alternative modelling approaches. The course closely follows the textbook “Introductory Econometrics: A Modern Approach” by J. Wooldridge.  

Learning Outcomes:  
In this course you will gain an understanding of econometric methods and their applications. You will learn how to analyse data, interpret existing analyses, the basics of econometric theory that underpins econometric analysis, as well as independent research skills starting from formulating a research question to concise presentation of results. The course leads to highly transferrable modelling and programming skills through lab-based instruction using the statistical programming language R (widely used in academic research, government roles, and the private sector).  

Delivery:  
The plan for this course is that it will be offered fully ‘Face to Face’ with many components being accessible both in person and online. I know that this is a difficult situation for all of us, and we all have different circumstances to consider. I will do my best to record all our synchronous in-person lectures and post them to our course page. You will have access to the recordings throughout the term. Our labs will be synchronous and delivered in-person. Our lab sessions will be recorded and posted to your Brightspace lab page. Students are encouraged to attend the in person sessions, so long as your are feeling well, to engage with the material and the instructor as the material is delivered. Midterm exams will be delivered in-person. My office hours will be online through Zoom.  

Zoom link for Office Hours: https://uvic.zoom.us/j/85184857102  

Please ensure you log into Zoom using your UVic Zoom account. Instructions can be found here:  
1. Go to uvic.zoom.us and sign in to activate your account.  
2. Try a test call to work out any technical difficulties well before class time  
3. Complete the Zoom Student Orientation Guide to get started with using Zoom
Textbooks

**Textbook (required):** The required textbook for this course is “Introductory Econometrics: A Modern Approach,” (Seventh Edition) by J. Wooldridge. It may be sold at the bookstore as a loose-leaf text (which saves you money), but you are welcome to buy it in bound form.

**MindTap (required):** The loose-leaf textbook is bundled with MindTap, which provides additional notes and is required for submission of online assignments. Students can register for the course on MindTap online. If you buy a bound copy, make sure it is bundled with MindTap.

**MindTap.**  
Course Link URL: [https://login.nelsonbrain.com/course/MTPPTJXQWQ7Z](https://login.nelsonbrain.com/course/MTPPTJXQWQ7Z)  
Course Key: MTPP-TJXQ-WQ7Z

**Lab Textbook (optional):** Labs will be based on the statistical programming language R. The optional textbook “Using R for Introductory Econometrics” (Heiss, 2016) provides code to complete the exercises in Wooldridge and is freely available online at: [http://www.urfie.net/](http://www.urfie.net/)

Grading

The final grade is determined as follows:

This course is assessed through 2 term exams (there is no final exam), an independent research project, lab exercises, and regular MindTap exercises.

- **Term Exams:** 30% (15% each)  
- **Independent Research Project:** 45%  
- **Lab Participation** 10%  
- **MindTap Exercises** 15%

**Term Exams (30%)** There will be two term exams consisting of a combination of multiple choice and written response style questions.

Items permitted during exams are: a non-programmable calculator without storage capacity (no Ti 89 etc.), pen and pencil, a water bottle, and your ID card. Any additional material will not be allowed on your desk during examinations unless approved in writing by myself beforehand. There will be additional office hours held by the TA prior to the term exams. If you miss a term exam without illness or family affiliation, you will receive 0% on the exam.

Note: All Material covered in lectures, labs, MindTap exercises, and relevant textbook chapters, may appear on the exam, thus attendance in lectures and labs is highly encouraged. Attendance highly correlates with final course grades. All exams are cumulative since the material presented in lectures and chapters builds on itself.

**Exam 1: In Class October 21st**  
**Exam 2: In Class December 2nd**

You must contact the course instructor as soon as reasonable if you miss an exam. One re-write will be scheduled for each exam and available to students with an appropriate reason for missing the exam. The re-write will cover the same material but will be a different format. There may be more emphasis on coding and written response on the re-write exam.
Independent Research Project (45%): The independent research project is designed to give you real-world experience of conducting research. You may choose any topic and dataset and estimate models to answer a research question that interests you.

You will present your results in the form of a written essay (maximum length of 5 pages + references). The research project constitutes independent work - you must reference any literature you cite and any data and methods you use. The consequences of plagiarism range from a failing grade for an assignment or course to disciplinary probation or even expulsion from the university. If you have any questions about academic integrity or what is considered plagiarism – please reach out to the instructor or the Center for Academic Communication.

No extensions will be granted on the project. If the final project, or one of its components, is submitted late - 2% of the total components grade will be deducted per 12 hours past the due date.

The research project will be graded in several parts:

**Topic Approval 5%: Oct 4th** (at the latest – if you have an idea, get it approved and get started!). You must receive emailed confirmation from me that your question and dataset are appropriate

**Literature Review 10%: Oct 23rd** You must submit a literature review and bibliography online. We will use APA citation formatting in this course.

**Peer Review Submission 15%: Nov 12th** You need to connect with a peer, swap papers, and provide constructive and respectful feedback. A digital copy of BOTH the feedback you provided and the feedback you received on your paper must be uploaded

**Final Submission 15%: Dec 10th** Submit your final paper.

**MindTap Exercises (15%):** MindTap exercises are designed to give you regular practise of the concepts learned in lectures and to keep you motivated with the readings. These are designed to be completed on a weekly basis. Exercises are scored on correctness for a total grade of 15%. The lowest score of all MindTap exercises will not be counted, so you are allowed to miss one MindTap exercise without penalty. No extension will be granted on MindTap exercises.

You are encouraged to keep up with the weekly assignments as we cover the material. However, I understand that life happens! All of the MindTap Exercises will be due December 1st at 11:59pm.

**Lab Participation (10%):** Lab exercises are designed to teach you econometric modelling in practise using the statistical programming language R. At the end of each lab week, you will be asked to hand in answers to a short set of questions on your lab Brightspace page. These will be marked primarily on completeness and effort, rather than strictly on correctness. No extensions will be granted on lab exercises.

You are encouraged to attend your lab session, as this will help you greatly on the lab exercises. However, if you are unable to attend your session – you may watch the recording and submit your lab assignment regardless.

**Essential Course Requirements:** The independent research project and one term exam must be completed to not receive an “N” on this course. **
## Course Schedule

**I reserve the right to add/edit/remove topics as the course moves along**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapter</th>
<th>Week</th>
<th>Important Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Intro and Statistics Review</td>
<td>Appendices A-C</td>
<td>1 – Sept 6</td>
<td></td>
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<tr>
<td>Statistics Review</td>
<td>Appendices A-C</td>
<td>2 – Sept 13</td>
<td></td>
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<tr>
<td>Introduction to Econometrics</td>
<td>1</td>
<td>3 – Sept 20</td>
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<tr>
<td>Univariate Regression</td>
<td>2</td>
<td>4 – Sept 27</td>
<td></td>
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<tr>
<td>Multivariate Regression</td>
<td>3</td>
<td>5 – Oct 4</td>
<td>Paper Topic Approval Due</td>
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<td>Inference</td>
<td>4</td>
<td>6 – Oct 11</td>
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<tr>
<td>Asymptotic</td>
<td>5</td>
<td>7 – Oct 18</td>
<td>Paper Literature Review Due</td>
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<td>Term Exam 1 – Oct 21</td>
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<tr>
<td>Model Specification Issues</td>
<td>6</td>
<td>8 – Oct 25</td>
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<tr>
<td>Dummy Variables</td>
<td>7</td>
<td>9 – Nov 1</td>
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<td>Introduction to Time Series</td>
<td>10</td>
<td>10 – Nov 8</td>
<td>Paper Peer Review Due</td>
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<tr>
<td>Introduction to Time Series</td>
<td>10</td>
<td>11 – Nov 15</td>
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<td>Heteroskedasticity</td>
<td>8</td>
<td>12 – Nov 22</td>
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<td>Determining Causality and Instrumental Variables</td>
<td>15</td>
<td>13 – Nov 29</td>
<td>MindTap Exercises Due Dec 1</td>
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<td>Term Exam 2 – Dec 2</td>
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<td>Final paper submission</td>
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<td>14 – Dec 6</td>
<td>Classes end on December 6</td>
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<td>Final Paper Due Dec 10</td>
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### Other Important Dates:
- September 21st Last day for 100% reduction of tuition fees
- September 24th Last day for adding courses
- September 30th Last day for paying term fees without penalty
- September 30th National Day for Truth and Reconciliation (No classes)
- October 11th Thanksgiving Day (No classes)
- October 12th Last day for 50% reduction of tuition fees
- October 31st Last day for withdrawing from first term courses without penalty of failure
- November 10th – November 12th Reading Break (No Classes)
- December 6th Last day of classes
Grading Scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A+</td>
<td>90-100</td>
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<tr>
<td>A</td>
<td>85-89</td>
</tr>
<tr>
<td>A-</td>
<td>80-84</td>
</tr>
<tr>
<td>B+</td>
<td>77-79</td>
</tr>
<tr>
<td>B</td>
<td>73-76</td>
</tr>
<tr>
<td>B-</td>
<td>70-72</td>
</tr>
<tr>
<td>C+</td>
<td>65-69</td>
</tr>
<tr>
<td>C</td>
<td>60-64</td>
</tr>
<tr>
<td>D</td>
<td>50-59</td>
</tr>
<tr>
<td>F or N</td>
<td>0-49</td>
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Students should review the University’s more detailed summary of grading.

**Course Policies**

This course adheres to the [Undergraduate Course Policies](#) of the Department of Economics that deal with the following issues:

- 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 examinations
- Travel plans
- Waitlists

The following policies are explicitly included because of their importance.

**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.

**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 show up in the first seven 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 [Policy on Academic Integrity](#) in the University Calendar, is subject to penalty by the University.

You will be asked to sign a pledge of integrity on each exam/assignment that you undertake online.
Review What is Plagiarism for the definition of plagiarism. Note: Submitted work may be checked using plagiarism detection software.

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

Accessibility & 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.
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.

Brightspace
- Brightspace is used extensively for the course. All students are expected to be fully functional with the system.
- The lecture notes will be posted in Brightspace. Please note that the lecture notes online are only outlines of the actual lectures.
- The lecture videos will be posted through Echo360 on Brightspace.
- Your lab assignments and all written components will be submitted on Brightspace.
- All announcements will be posted in Brightspace. Students are advised to check it frequently.

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
**Repeating Courses**

Be aware of the policy regarding the repeating of courses; see [University Calendar](#).

In order to request permission to attempt this course for the third time, you must follow the instructions provided under the [Repeating Courses](#) policy on the Economics website. Failure to obtain permission will result in deregistration from the course.

**E-mail correspondence**

Emails should be limited to critical matters, such as inability to attend class, an exam, or prolonged illness, and should include the course name and number in the subject line. Questions on course material should be asked during office hours, in class, during labs, or on our Brightspace discussion boards. The standard format for writing a letter must be used. This means it should begin with a salutation (e.g. Dear….), include full sentences and it must conclude with a signature that includes your **fullname and V#**. Text message lingo should not be used.

**Electronic devices**

You are encouraged to install econometric software on your personal computers. R ([https://cran.r-project.org/](https://cran.r-project.org/)) and RStudio ([https://www.rstudio.com/](https://www.rstudio.com/)) are freely available online, the lab will cover use of the software. You are also encouraged to bring your own laptops with R and RStudio installed to the labs.

**Sexualized Violence Prevention & 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).