Faculty of Science Course Syllabus
Department of Economics
ECON 4201 — Honours Thesis I
Fall 2026

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Lectures: MCCAIN ARTS 2102

Fall Term Lecture: Tuesdays, 16:05–17:25

Office: 6220 University Avenue, B24

Office Hours: Tuesdays, 14:35–15:55, and Thursdays, 11:35–12:55 (overflow slot), or by appointment

Course Delivery: In-person, supplemented with materials posted on Brightspace

Course Description

This course is required for Honours students, and helps students define, research, and write an original research project under the supervision of an economics faculty member. Students develop a topic, critique current literature, run statistical tests, and present their results in a public conference.

In Fall term, students identify a research question, locate an appropriate published paper, and either replicate that paper's empirical analysis or construct/simulate a comparable dataset when the original data is not accessible. In Winter term, students extend this work — through a new country, time period, method, or additional data — into a full original research paper, culminating in a final thesis and a poster presentation.

Throughout both terms, particular emphasis is placed on correctly distinguishing descriptive, predictive, and causal analysis, and on avoiding the common error of presenting purely descriptive or associational results (e.g., simple OLS on country-level or cross-sectional data) as if they were causal.

NOTES: Students must complete both ECON4201.03 and 4202.03 and are assigned a common grade for both courses after both have been completed.

Course Prerequisites

ECON 2200.03, ECON 2201.03, ECON 3338.03, a grade of B or higher in at least one Dalhousie writing course, and permission of the instructor.

Learning Outcomes

The approach taken in the delivery of this course is to value independent research both as a process and as an output. Any research process involves identifying a knowledge gap, specifying a research question, designing and applying an appropriate methodology to address this question, and reporting and disseminating the findings.

The best way to learn about how to do research is by doing research. While creativity is highly valued in research and different fields in economics have developed different methods for research, hey nevertheless share common pathways for successful conclusion of a research project. A

research paper synthesizes existing knowledge on a particular topic, identifies a significant knowledge gap within that topic, designs a novel analysis of the existing evidence or presents new evidence on the topic, and produces findings that substantially reduce the knowledge gap. Finally, these findings must be communicated effectively using a style appropriate for the intended audience. The course will guide you through the research process with a sequence of assignments, but ultimately you are responsible for the outcome and the communication of your results.

By the end of this year-long sequence, students will be able to:

- Formulate an original, feasible economic research question and situate it within the relevant academic literature.
- Distinguish between association, causation, forecasting, and prediction, and correctly characterize the nature of their own empirical results.
- Identify and apply econometric methods appropriate to their research question, including awareness of micro, macro, time-series, and panel approaches.
- Locate, evaluate, and replicate a published empirical study
- Construct a simulated dataset from descriptive statistics and information reported in a source paper when the underlying data cannot be accessed.
- Use generative AI/LLM tools responsibly, transparently, and with appropriate disclosure, in a research context.
- Communicate research effectively in written form and through oral presentation and poster formats, to both specialist and general audiences.
- Give and receive constructive, substantive feedback on research in a peer workshop setting.

Course Materials

Required: Turabian, Kate L. 2019. Student's Guide to Writing College Papers, 5th edition. University of Chicago Press.

Recommended: Aydede, Yigit, and Mutlu Yuksel. Causal Inference and Machine Learning in Economics, Social, and Health Sciences. Routledge, 2024. Free HTML version at www.causalmlbook.com

Recommended for students who want a deeper foundation in causal inference methods (also relevant background for the instructor's winter term Machine Learning in Economics course).

Recommended: Miller, Jane E. 2013. The Chicago Guide to Writing about Multivariate Analysis, 2nd edition. University of Chicago Press.

Programming Tools

R is the primary programming language used in this course. Stata is accepted as an alternative for students already proficient in it. Basic R instruction/resources will be pointed to during Fall term; students are expected to build working proficiency as the term progresses.

Class Participation

Participation is graded on the quality of contribution — providing ideas, feedback, and questions during topic pitches, workshops, and peer presentations — not on attendance alone. Students are expected to attend every session, engage substantively with classmates' work, and come to office-hours meetings prepared.

Use of Generative AI / LLM Tools

The use of generative AI and large language models (e.g., ChatGPT, Claude) is permitted in this course, subject to the following conditions:

- AI tools may be used for coding assistance/debugging, literature summarization, and editing support.
- AI-assisted work must be disclosed: students must briefly note, in an AI-use statement attached to major submissions, what tools were used and for what purpose.
- Analysis, interpretation, and final written arguments must reflect the student's own understanding; AI output cannot be submitted as original analysis or writing without disclosure and critical review.
- Final responsibility for the accuracy and integrity of all submitted work rests with the student.

This policy applies specifically to ECON 4201/4202.

Data, Replication, and Simulation Policy

Students are expected to base their Fall-term project on the replication of a published empirical paper(s). Where the original data cannot be accessed, students may construct a simulated dataset using information reported in the paper's descriptive statistics (e.g., variable ranges, means, and standard deviations) to generate comparable proxy data for analysis.

Students may work in pairs during the data-sourcing and replication stage. However, each student must write and submit their own paper and presentation individually; shared data or code does not imply shared authorship of the written work.

Course Assessment — Fall Term (ECON 4201)

The Fall-term grade (out of 100) is based on the following components:

Component	Weight
Participation & Engagement (in-class discussion, peer feedback quality, office-hours engagement)	15%
Topic Proposal & Pitch (in-class presentation, Oct 13/20)	15%
Data/Progress Checkpoint (short memo: data sourced, methodology, issues encountered — Nov 17)	20%
Preliminary Results Paper (written)	30%
Preliminary Results Presentation (~Dec 15)	20%

Note: ECON 4202 (Winter term) will be graded separately, out of 100, using a breakdown to be detailed in the ECON 4202 syllabus. Per University policy, a single final letter grade is assigned across both ECON 4201 and ECON 4202 once the full year-long sequence is complete.

Fall Term Course Schedule

Wk	Date	Topic / Focus	Office Hours Focus
1	Sep 8	Course launch: year overview, grad-school vs. job-market tracks, expectations	—
2	Sep 15	Good research questions; association vs. causation; forecasting vs. prediction	Interest-discussion meetings begin

Wk	Date	Topic / Focus	Office Hours Focus
3	Sep 22	Methods landscape (macro/micro/panel/time series, incl. macro segment); finding questions in journals	Interest-discussion meetings continue
4	Sep 29	Finding replicable papers/data; simulating data from descriptive statistics; how to write/present; AI/LLM policy	Topic/paper feasibility meetings
5	Oct 6	Working week — no new lecture content	Pitch refinement meetings; pairs finalized
6	Oct 13	In-class topic pitches, part 1 (3 students; 3-min pitch + 7-min discussion each)	—
7	Oct 20	In-class topic pitches, part 2 (6 students)	—
8	Oct 27	Replication work period begins (independent)	Troubleshooting drop-ins
9	Nov 3	Replication work period continues	Troubleshooting drop-ins
—	Nov 10–15	Fall Break — no classes	—
10	Nov 17	Preliminary results check-in; presenting results/tables	Troubleshooting drop-ins
11	Nov 24	Practice presentations (informal, peer feedback)	—
12	Dec 1	Final regular class: wrap-up; confirm presentation logistics	—
—	~Dec 15 (TBC)	Final Fall Presentations — 15 min/student, ~3-hour block (exam period)	—

Fall Term Milestones

Milestone	Target Date	Deliverable
Interest-Discussion Meeting	Week of Sep 15	Informal discussion of research interests/fields (office hours)
Topic Feasibility Meeting	Week of Sep 29	1–2 candidate topics/papers discussed with instructor
Pitch Refinement Meeting	Week of Oct 6	Finalized topic and, if applicable, replication partner
Topic Pitch Presentation	Oct 13 or Oct 20	3-min pitch + 7-min class discussion
Preliminary Results Presentation	~Dec 15 (TBC)	15-min presentation of replication/simulation results — graded Fall deliverable

Winter Term Overview (Tentative)

The following outlines the intended shape of Winter term (ECON 4202). Full schedule, deliverables, and grading breakdown will be provided in the ECON 4202 syllabus at the start of Winter term.

- Recap and define individual extension plans (new country/period, or move to own sourced/simulated data).
- Individual office-hours meetings to refine extension direction (January).
- In-class progress presentations: literature review update, initial extension results or problems encountered (February).
- Writing workshops: structuring the results section, robustness checks.
- Peer review of full drafts.

- Poster design and presentation practice.
- Final presentations (mini-conference style) and poster session.

Grade Conversion Scale

Range	Grade	Range	Grade
90–100	A+	65–69	C+
85–89	A	60–64	C
80–84	A-	55–59	C-
77–79	B+	50–54	D
73–76	B	< 50	F
70–72	B-		

Missed Assessments / Late Policy

All milestone deliverables and presentations are required steps toward the thesis and must be completed. Late written submissions will be marked down 20% per day. Exceptions require a legitimate reason as listed under section 16.8 of the Dalhousie University Calendar's Academic Regulations. Because in-class pitch and presentation slots are shared with classmates, any conflict must be raised with the instructor in advance of the scheduled date.

Style Requirements

All written work must follow the Chicago Manual of Style (Author-Date), as detailed in Turabian's Student's Guide to Writing College Papers. Additional style guidelines will be distributed with individual assignments.

Academic Integrity

At Dalhousie University, we are guided in all our work by the values of academic integrity: honesty, trust, fairness, responsibility, and respect. Students are required to demonstrate these values throughout the thesis process. Note that the AI/LLM policy stated above is specific to this course.

Academic Integrity Module: You are required to complete the Writing Centre's Academic Integrity Module by September 29th, 2026.(https://www.dal.ca/life-at-dal/student-support/writing-support.html)

This syllabus (Fall term detail; Winter term overview) is an initial version and subject to revision. Any changes will be communicated to students via Brightspace.

Syllabus Appendix

(Formerly University Policies and Statements)

Here is the link to the new "Syllabus Appendix" to guide students towards supports, university policies, and guidelines.

Syllabus Appendix: Student Supports & University Statements, Policies, and Guidelines