ECON 4360A
Labour Economics
Fall 2026

Department of Economics, Carleton University

Instructor	Christopher Worswick
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Office	LOEB-D888
Office Hours	10 to 11 am, Wednesdays and Fridays
Lectures	11:30 am to 2:30 pm, Fridays, in SA 515
Course Delivery	Primarily in person. At most two lectures may be delivered online or pre-recorded.

Course Overview

This course applies economic theory and modern empirical methods to the study of labour markets. The course develops models of labour supply and labour demand, human capital and education, wage determination, search and unemployment, monopsony and minimum wages, discrimination, immigration, unions, technological change, trade, and the role of firms in wage setting. Particular attention is given to how economists use natural experiments and other empirical strategies to identify causal effects and evaluate labour-market policies.

Learning Outcomes

By the end of the course, students should be able to:

- Use economic models to analyze individual and firm behaviour in labour markets.
- Derive and interpret key results from models of labour supply, labour demand, human capital, search, monopsony, and wage determination.
- Understand how labour economists use regression analysis, instrumental variables, difference-in-differences, and natural experiments to estimate causal effects.
- Read and critically assess empirical journal articles in labour economics.
- Apply theoretical and empirical frameworks to policy questions involving minimum wages, education, discrimination, immigration, and unions.

Prerequisites and Expected Preparation

Prerequisite(s): ECON 3020 (or equivalent) with a grade of C- or higher, and ECON 3210 (or equivalent) with a grade of C- or higher. By the start of the first lecture, students are expected to be comfortable with algebra, calculus, statistics, and introductory econometrics. The course will make regular use of optimization, comparative statics, regression analysis, and causal-inference concepts.

Communication

If you need to email the instructor, please use your Carleton email address and include ECON 4360A in the subject line. Course announcements, lecture materials, and any changes to the schedule will be posted on Brightspace.

Required Readings and Cost of Educational Materials

Students are not required to purchase textbooks or other learning materials for this course. The list of required readings in the table below consists of journal articles made available through the Carleton University Library, Brightspace, or other no-cost sources.

Evaluation

Component	Weight	Format
Midterm Exam 1	30%	In person, closed book. Date to be announced.
Midterm Exam 2	30%	In person, closed book. Date to be announced.
Final Examination	40%	In person, closed book, cumulative; scheduled by the University during the December examination period.

The relevant list of topics for each examination will be made available at least seven days before the examination. Unless otherwise announced, students may bring only a pen/pencil, eraser, and ruler to the examinations.

Missed Midterm Examinations

Students who miss a midterm examination for a reason that qualifies for academic consideration will have the weight of that midterm transferred to the final examination. Students should follow the University's applicable academic consideration and accommodation processes.

Lecture Topics and Indicative Schedule

The sequence below is the planned structure of the course. The pace may be adjusted during the term. The lecture content emphasizes economic models together with empirical identification and policy applications.

Week	Topic	Core Content	Indicative Reading
1	Introduction: Labour Markets and Empirical Methods	Labour-market facts and measurement; equilibrium and comparative statics; potential outcomes; selection; experiments, natural experiments, IV and difference-in-differences.	Imbens, Rubin & Sacerdote (2001)
2	Labour Supply	Static labour-leisure choice; income and substitution effects; participation; extensive and intensive margins; taxes and transfer programs.	Imbens, Rubin & Sacerdote (2001)

3	Labour Demand	Short- and long-run labour demand; substitution and scale effects; competitive equilibrium.	Card & Krueger (1994)
4	Minimum Wages, Monopsony, and Imperfect Competition	Competitive versus monopsonistic labour markets; wage-setting power; minimum wages; empirical evidence and identification.	Card & Krueger (1994); Dube, Lester & Reich (2010)
5	Human Capital and the Economics of Education	Schooling and training as investment; present value; Mincer earnings functions; ability bias; returns to schooling; signalling.	Angrist & Krueger (1991); Spence (1973)
6	Wage Inequality and the Structure of Wages	Skill prices; supply and demand for skills; returns to education; technological change; decomposition of wage inequality.	Katz & Murphy (1992); Card, Heining & Kline (2013)
7	Search, Unemployment, and Unemployment Insurance	Job-search models; reservation wages; duration dependence; matching; unemployment insurance and search incentives.	Card, Chetty & Weber (2007)
8	Discrimination and Gender Differences	Taste-based and statistical discrimination; audit studies; occupational sorting; gender wage gaps and workplace flexibility.	Bertrand & Mullainathan (2004); Goldin (2014)
9	Immigration and Labour-Market Adjustment	Labour-market effects of immigration; spatial and skill-based adjustment; identification challenges; immigration policy.	Card (1990)
10	Trade, Technology, and Labour-Market Shocks	Local labour markets; import competition; automation and task change; worker and regional adjustment to shocks.	Autor, Dorn & Hanson (2013)
11	Unions, Collective Bargaining, and Wage Setting	Union objectives; bargaining models; union wage and employment effects; institutions and rent sharing.	Selected lecture reading
12	Firms and Modern Wage Determination / Course Synthesis	Firm wage effects; sorting and rent sharing; links among monopsony, inequality, mobility, and labour-market institutions; review and synthesis.	Card, Heining & Kline (2013)

Core Journal Reading List

1. Angrist, Joshua D., and Alan B. Krueger (1991). “Does Compulsory School Attendance Affect Schooling and Earnings?” Quarterly Journal of Economics 106(4): 979-1014.
2. Autor, David H., David Dorn, and Gordon H. Hanson (2013). “The China Syndrome: Local Labor Market Effects of Import Competition in the United States.” American Economic Review 103(6): 2121-2168.
3. Bertrand, Marianne, and Sendhil Mullainathan (2004). “Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination.” American Economic Review 94(4): 991-1013.

4. Card, David (1990). “The Impact of the Mariel Boatlift on the Miami Labor Market.” Industrial and Labor Relations Review 43(2): 245-257.
5. Card, David, Raj Chetty, and Andrea Weber (2007). “Cash-on-Hand and Competing Models of Intertemporal Behavior: New Evidence from the Labor Market.” Quarterly Journal of Economics 122(4): 1511-1560.
6. Card, David, Jörg Heining, and Patrick Kline (2013). “Workplace Heterogeneity and the Rise of West German Wage Inequality.” Quarterly Journal of Economics 128(3): 967-1015.
7. Card, David, and Alan B. Krueger (1994). “Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania.” American Economic Review 84(4): 772-793.
8. Dube, Arindrajit, T. William Lester, and Michael Reich (2010). “Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties.” Review of Economics and Statistics 92(4): 945-964.
9. Goldin, Claudia (2014). “A Grand Gender Convergence: Its Last Chapter.” American Economic Review 104(4): 1091-1119.
10. Imbens, Guido W., Donald B. Rubin, and Bruce I. Sacerdote (2001). “Estimating the Effect of Unearned Income on Labor Earnings, Savings, and Consumption: Evidence from a Survey of Lottery Players.” American Economic Review 91(4): 778-794.
11. Katz, Lawrence F., and Kevin M. Murphy (1992). “Changes in Relative Wages, 1963-1987: Supply and Demand Factors.” Quarterly Journal of Economics 107(1): 35-78.
12. Spence, Michael (1973). “Job Market Signaling.” Quarterly Journal of Economics 87(3): 355-374.

Generative Artificial Intelligence (GenAI)

GenAI tools may be used as study aids in this course. Permitted uses include asking for explanations of economic concepts, generating additional practice questions, checking algebra or calculus steps, creating study summaries from a student's own notes, and obtaining feedback on practice answers. Students should verify GenAI output against lecture material and assigned readings; GenAI systems can produce incorrect, incomplete, or fabricated answers and references.

GenAI is not permitted during either midterm examination or the final examination. Students may not use GenAI to obtain, reproduce, or distribute examination questions or answers, or to misrepresent AI-generated work as their own in any assessed work for which such use has not been expressly permitted.

For ordinary private study and exam preparation, documentation of GenAI use is not required. If any submitted coursework is assigned for which GenAI use is permitted, students must disclose the tool used and briefly describe how it was used, following any instructions provided with that assignment.

The purpose of this policy is to allow students to use GenAI for useful practice and feedback while ensuring that assessed work measures each student's own understanding of labour economics, economic modelling, and empirical reasoning.

As our understanding of the uses of GenAI and its relationship to student work and academic integrity continue to evolve, students are required to discuss their use of GenAI in any circumstance not described here with the course instructor to ensure it supports the learning goals for the course.

Carleton's AI Framework offers guidance on the effective, responsible, and ethical use of GenAI. Resources related to citing GenAI are available through the MacOdrum Library, and additional resources are available through Carleton's Artificial Intelligence Hub.

Academic Accommodations

Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes, including information about the Academic Consideration Policy for Students in Medical and Other Extenuating Circumstances, are outlined on the Academic Accommodations website **(students.carleton.ca/course-outline).**

Academic Integrity

Academic integrity is fundamental to the University. Students are responsible for reading and understanding Carleton University's Academic Integrity Policy and for ensuring that all work submitted for evaluation complies with that policy. Unauthorized assistance, plagiarism, and other forms of academic misconduct are serious offences.

Academic Standing

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

Deferred Final Examination

Students unable to write the final examination may be eligible to write a deferred final examination. Applications for a deferred final examination must be made through the Registrar's Office in accordance with University procedures and deadlines.