

# Course Outline

<b>Course Code</b>	RSM 483 H1 F
<b>Course Name</b>	Real Estate Markets
<b>Term, Year</b>	Fall, 2024
<b>Course Meets</b>	Wednesdays 11-1 in WO
<b>Web page URL</b>	<a href="https://q.utoronto.ca">https://q.utoronto.ca</a>

## Instructor Details

Name	Email	Phone	Office Hours	Virtual Office Link
Nate Baum-Snow	<a href="mailto:Nate.Baum.Snow@rotman.utoronto.ca">Nate.Baum.Snow@rotman.utoronto.ca</a>	Please email	Wednesdays 2-3PM or by appointment on zoom	<a href="https://utoronto.zoom.us/j/85388812463">https://utoronto.zoom.us/j/85388812463</a>

## Course Description

This course uses methods from economics and econometrics to analyze real estate markets. Topics covered include real estate valuation, real estate demand and supply, land use, urban growth and agglomeration, real estate market dynamics, intermediation and brokerage, and real estate development.

The course is designed to be useful to students from across the Commerce program. In addition to those who pursue careers in real estate itself, an understanding of real estate markets will be useful to students interested in banking and asset management. A background in real estate can also be beneficial to managers more broadly, as they sometimes deal directly with location decisions and because firms frequently own or rent a significant amount of real estate. As a result, firms in many different industries must understand how to operate in the real estate business in addition to their core business.

The data analytics component of the course uses the software package R. This is a leading package used for data management and statistical analysis. It is free to use and can be done completely online. No prior knowledge of R is required or assumed.

## Learning Outcomes

By the end of this course, students will be able to:

- Analyze real estate markets using frontier tools from economics and econometrics
- Implement relevant methods in data science that are commonly used to analyze real estate markets in R
- Understand relevant empirical evidence on the drivers of real estate values across time and space
- Understand the ways in which various types of institutions influence the operation of real estate markets

## Course Prerequisites

ECO204Y/206Y (Intermediate Microeconomics)

ECO220Y/227Y/(STA220H,STA255H)/(STA237H1,STA238H1)/(257H+261H) (Introductory Statistics/Econometrics)

Co-requisite: RSM 332H1 (Capital Market Theory) If you drop RSM 332H1 during the academic term, you must also drop RSM483. Contact Rotman Commerce Academic Services for academic advising if needed.

## Course Materials

### Required Readings

All readings except one will be posted to the course website (on Quercus). There are no books or readings that need to be purchased except “The Big Short”. However, you can watch the movie instead.

### Electronic Course Materials

This course will be using the following electronic course materials:

#### **R software as accessed through posit.cloud or by your own installation of RStudio**

You can either do your R assignments on posit.cloud or in RStudio as installed on your own computer. This software is free. You will be invited to register for posit.cloud just after the first class session. The use of these materials complies with all University of Toronto policies which govern fees for course materials.

#### **classquestion.com**

Every class will have a few multiple-choice questions that are used to evaluate understanding of the material and to stimulate discussion. So that your answers can be tabulated, please register for a free Class Question account and bring a smartphone or computer to every class so that you can participate. Please log in every day when you come to class. This will cost you no money. Here are the registration instructions:

If you already have a Class Question account, skip to step 2. If you are new, start at step 1.

- 1) Go to [classquestion.com/students](https://classquestion.com/students) and click "Click here to register". This link will allow you to register for the site.
- 2) Once you have registered, go to [classquestion.com/students](https://classquestion.com/students) and sign in.
- 3) Click "Add Class" at the bottom. Enter the Class Code for this class: **GLCHQ** and then click "Add Class".
- 4) Your class will be added to the dropdown menu at the top. You can now click the "Sign In" button to log into your class.

These materials will cost nothing. The use of these materials complies with all University of Toronto policies which govern fees for course materials.

## Evaluation and Grades

Grades are a measure of the knowledge and skills developed by a student within individual courses. Each student will receive a grade on the basis of how well they have command of the course materials, skills and learning objectives of the course.

<b>Work</b>	<b>Percentage of grade</b>	<b>Due Date</b>
Class Participation/Attendance (I)	12%	Ongoing
Property Valuation Exercise (I)	3%	After Class 1
Weekly Quizzes on Quercus (I)	5%	Ongoing
R Assignment #1 (I)	8%	After Class 3

In Class Exercise/Presentation (G)	2%	Class 5
R Assignment #2 (I)	12%	After Class 5
Case Write-Up (G)	3%	Before Class 8
Case Participation (I)	3%	Class 8
Debate, including write-up (G)	5%	Class 10
R Assignment #3 (I)	12%	After Class 12
Final Exam	35%	Scheduled by A&S

## Course Format and Expectations

### *Writing Assignments or Presentations*

Written assignments and class presentations are intended to help you develop your communication skills. How well you communicate your ideas, in writing or orally, will be considered in the evaluation of the assignment. In your written assignments, you should aim for clarity, strong organization, concision, professionalism, and correct grammar. Your presentations should reflect strong planning and organization, clarity of speech, and an engaging demeanour. Sources, whether in written or presentation assignments, should always be correctly attributed.

Support is available through the RC Centre for Professional Skills (CPS) for students who would like help or feedback on their writing or speaking (presentations). CPS offers both individual and group appointments with trained writing instructors and presentation coaches who are familiar with the RC program and common types of business assignments. You can also access your college Writing Centres for help with written assignments.

You can book an appointment with a writing or presentation coach through the RC Centre for Professional Skills Writing Centre. For more information about writing centres, student supports, and study resources, see the [Writing and Presentation Coaching academic support page](#).

### *Team or Group Assignments*

An in-class exercise, the case write-up and the debate require students to work in teams of 4-5. Learning to work together in teams is a crucial transferrable skill you will use not only in your coursework, but also in your future careers. Support is available if you encounter common teamwork challenges such as:

- Team members feeling left out of the team.
- Team members not responding in a timely manner to communication.
- Division or quality of work among team members being unequal or unfair.

Consult the [Centre for Professional Skills Teamwork Resources page](#) for tips, strategies, and best practices. You can also [book an appointment with a teamwork mentor](#) through the RC Centre for Professional Skills Writing Centre. Teamwork mentors can help you resolve or mitigate conflict, strategize on planning, or improve team communication.

If you are a student registered with Accessibility Services, and extensions are one of your academic accommodations, consult with your Accessibility Advisor about the teamwork in this course.

### *Class Participation*

Students are expected to prepare thoroughly and make every effort to attend every class. As class participation is a graded component of the course, students will be evaluated on the following:

- Thoughtful responses

- Understanding and analysis of topic
- Idea generation
- Promoting further discussion
- Respectful active listening
- Attentiveness

While attendance is necessary for students to participate in class discussions, attendance on its own will not result in a high participation grade. Students must actively contribute and participate by exhibiting the components listed above.

### ***Missed Tests and Assignments***

Students who miss a term test or assignment for reasons entirely beyond their control (e.g. illness) may request special consideration **within 2 business days** of the missed midterm/test/assignment due date.

In such cases, students must:

1. Complete the Request for Special Consideration form: <https://uoft.me/RSMConsideration>
2. Provide documentation to support the request, eg. Absence Declaration from [ACORN](#), medical note etc.

**Please note:** As of September 2023, students may use the Absence Declaration on ACORN **\*one time per term\*** to report an absence and request consideration. **Any subsequent absence will require a [Verification of Illness form](#) or other similar relevant documentation.**

Students who do not submit their requests and documentation within 2 days may receive a grade of 0 (zero) on the missed course deliverable.

**Final Exams:** If you miss the final exam in this course for a legitimate reason (illness, etc) you will need to contact your College Registrar to file a petition for a deferred exam. This deferred exam will be written at a later date as established by the Faculty of Arts & Science. Instructions can be found here: <https://www.artsci.utoronto.ca/current/faculty-registrar/petitions-appeals/preparing-petition>

### ***Late Assignments***

*All assignments are due on the date and at the time specified in Quercus. Late submissions will be penalized by 15% if the assignment is not received on the specified date, at the specified time. A further penalty of 5% will be applied to each subsequent day.*

## **Statement on Equity, Diversity and Inclusion**

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

## Commitment to Accessibility

The University is committed to inclusivity and accessibility, and strives to provide support for, and facilitate the accommodation of, individuals with disabilities so that all may share the same level of access to opportunities and activities offered at the University.

If you require accommodations for a temporary or ongoing disability or health concern, or have any accessibility concerns about the course, the classroom or course materials, please [email Accessibility Services](#) or visit the [Accessibility Services website](#) for more information as soon as possible. Obtaining your accommodation letter may take up to several weeks, so get in touch with them as soon as possible. If you have general questions or concerns about the accessibility of this course, you are encouraged to reach out to your instructor, course coordinator, or Accessibility Services.

## Plagiarism Detection

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the [University's Plagiarism Detection Tool FAQ](#) page from Centre for Teaching Support & Innovation.

## Generative AI / ChatGPT

These are powerful tools that can speed up and simplify the writing process. The difficulty with these tools is that, while they have ideas that come across as human and are explained with grammatical clarity, many of their ideas do not make much sense or are patently false.

Some course writing assignments will ask you to summarize contents of class discussions and then provide your own perspectives on the topic. Generative AI/ChatGPT will not have been to class, so will have a difficult time doing the first part well. The second part will be read carefully for logical connections to the first part, making it difficult to use these tools there as well.

Other writing assignments will be responses to questions that are quite specific to the course and that connect to discussions and presentations in class.

If generative AI/ChatGPT can come up with a better set of ideas than you can, that is your failure. If I discover that generative AI/ChatGPT have been used for idea generation in a writing assignment, you will receive a bad grade. But that will mostly be because bad ideas will receive bad grades.

## Academic Integrity

Academic Integrity is a fundamental value essential to the pursuit of learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the U of T degree that you earn will continue to be valued and respected as a true signifier of a student's individual work and academic achievement. As a result, the University treats cases of academic misconduct very seriously.

[The University of Toronto's Code of Behaviour on Academic Matters](#) outlines the behaviours that constitute academic misconduct, the process for addressing academic offences and the penalties that may be imposed. You are expected to be familiar with the contents of this document. Potential offences include, but are not limited to:

In papers and assignments

- Using someone else's ideas or words without appropriate acknowledgement.

- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment (this includes collaborating with others on assignments that are supposed to be completed individually).

#### On test and exams

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers.
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

#### Misrepresentation

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to) medical notes.

All suspected cases of academic dishonesty will be investigated by the procedures outlined in the [Code of Behaviour on Academic Matters](#). If you have any questions about what is or is not permitted in the course, please do not hesitate to contact the course instructor. If you have any questions about appropriate research and citation methods, you are expected to seek out additional information from the instructor or other U of T or RC resources such as the RC Centre for Professional Skills, the College Writing Centres or the Academic Success Centre.

## Email

At times, the course instructor may decide to communicate important course information by email. As such, all U of T students are required to have a valid UTmail+ email address. You are responsible for ensuring that your UTmail+ email address is set up and properly entered on ACORN. For more information visit the [Information Commons Help Desk](#).

Forwarding your utoronto.ca email to a Gmail or other type of email account is not advisable. In some cases, messages from utoronto.ca addresses sent to Gmail accounts are filtered as junk mail, which means that important messages from your course instructor may end up in your spam or junk mail folder.

## Recording Lectures

Lectures and course materials prepared by the instructor are considered by the University to be an instructor's intellectual property covered by the Canadian Copyright Act. Students wishing to record a lecture or other course material in any way are required to ask the instructor's explicit permission and may not do so unless permission is granted. Students who have been previously granted permission to record lectures as an accommodation for a disability are excepted. This includes tape recording, filming, photographing PowerPoint slides, Quercus materials, etc.

If permission for recording is granted by the instructor (or via Accessibility Services), it is intended for the individual student's own study purposes and does not include permission to "publish" them in any way. It is forbidden for a student to publish an instructor's notes to a website or sell them in any other form without formal permission.

## Weekly Schedule

The course will have both in person and asynchronous components. In person sessions will run from 11:10AM till 1PM on Wednesdays. Except for the first one, in person sessions will be primarily oriented toward discussions, questions and practice rather than the presentation of new material.

Asynchronous videos of lectures with new material are to be watched before associated synchronous class sessions. For example, asynchronous lectures for Class 2 should be watched before Class 2 meets. After each lecture segment, you should complete the posted quiz questions to confirm your familiarity with the material. You are given multiple chances to complete them correctly. I also encourage you to complete the other longer-form review questions posted to Quercus, which will look more like questions on the final exam.

The lecture notes (posted to Quercus) will be your primary source for course material.

### **Part I: Introduction and Real Estate Valuation**

#### **Class 1: Course Introduction (September 4)**

Readings: Lecture Notes

#### **Class 2: Real Estate Valuation and Hedonic Pricing Property Valuation Exercise Due (I) by 9AM**

Readings: Lecture Notes

“A tale of two property taxes: Star investigation finds troubling trend hitting Toronto's cheapest homes while mansions catch a break” (Toronto Star, July 8, 2023)

“Zillow, facing big losses, quits flipping houses and will lay off a quarter of its staff.” (New York Times, Nov 2, 2021)

Discussion: How much would you pay for this house?

Introduction to using R

### **Part II: Land Use and Urban Spatial Structure**

#### **Class 3: Home Price Indexes and Spatial Equilibrium Ideas**

Readings: Lecture Notes

“Unemployment, lower immigration to slow housing activity in major cities, CMHC says” *Globe and Mail* (June 23, 2020)

“Despite the pandemic, Ottawa’s real estate market thunders ahead” *Globe and Mail* (June 17, 2020)

Discussion: COVID-19 and housing prices. Supply and demand factors.

#### **Friday 5PM: R Assignment #1 Due**

#### **Class 4: Fundamentals of Rent and Land Use**

Readings: Lecture Notes

“A 2:15 Alarm, 2 Trains and a Bus Get Her to Work by 7 A.M.” *New York Times* (August 17, 2017)

“Scarborough Subway will cost more and attract fewer people” *Globe and Mail* (Feb 28, 2017)

“How Toronto’s Ontario Line Route Was Designed” *Metrolinx News* (July 21, 2020)

Discussion: Should Toronto build more subways?

#### **Class 5: Urban Growth and Zoning (Each Group Bring 1 Computer to Class)**

Readings: Lecture Notes

“Dupont Street Prepares for a Wave of Redevelopment” *urbantoronto.ca* (Mar 23, 2016)

“Growth to Watch for ...” *urbantoronto.ca* (Jan 30, 2017)

“Developer’s plan to build beside the rail corridor at Dupont St. would put lives at risk, city says” *Toronto Star* (May 29, 2017)

“Why revamped Dupont Street will likely be more than just another condo mishmash,” *Toronto Star* (August 15, 2017)

“Is the Greenbelt squeezing Toronto’s housing market?” *The Globe and Mail* (Oct 14, 2016)

“Greenbelt forcing up home prices in GTA: Critics” *Toronto Sun* (Jan. 28, 2017)

Discussion: Develop Dupont St., the Toronto Greenbelt or neither?

Groups give class presentations.

#### **Sunday: R Assignment #2 Due**

#### **Class 6: Residential Housing Demand and Supply; Tax Treatment of Housing**

Readings: Lecture Notes

“It won’t be popular, but we should scrap the homeowner tax break,” *Globe and Mail* (July 28, 2020)

“A 30-Year Trap: The Problem With America’s Weird Mortgages” *New York Times* (Nov 19, 2023)

Optional: Gyourko, J. (2009) “Housing Supply.” *Annual Review of Economics*

Discussion: Would establishing a tax deduction for mortgage interest make sense for Canada?

### **Part III: Nonresidential Real Estate**

#### **Class 7: Business Location and Agglomeration**

Readings: Lecture Notes

“How the U.S. Lost Out on iPhone Work” *New York Times* (Jan. 21, 2012)

“Tenants Troubles put stress on commercial real estate” *New York Times* (June 5, 2020)

“How the ‘urban doom loop’ could pose the next economic threat” *Washington Post* (August 28, 2023)

“Buyers Snap Up Aging and Empty Office Buildings for Deep Discounts” *New York Times* (June 12, 2024)

Discussion: Office apocalypse? Retail apocalypse? Industrial boom?

#### **Class 8: Canary Wharf Case**

##### **9AM: Case Summary Due**

Readings: Case Writeup

“London’s Canary Wharf Tries to Revamp Its Image ...” *New York Times* (July 14, 2023)

### **READING WEEK**



## Part IV: Real Estate Dynamics

### Class 9: Real Estate Cycles

Reading: Lecture Notes

Optional: Glaeser, Edward L., "A Nation of Gamblers: Real Estate Speculation in American History," NBER Working Paper #18225

Discussion: Why do some markets experience big cycles and other markets don't?

### Class 10: Debate on the state of the Toronto housing market

"Canada's Cooling Experiment" *The Globe and Mail* (August 3, 2017)

Optional: Crawford, Meh & Zhou "The Residential Mortgage Market in Canada: A Primer" Bank of Canada (2013)

## Part V: Advanced Topics

### Class 11: Case Study of The 2008 US Financial Crisis

Readings: Lecture Notes

"The Big Short" movie (or, even better, read the book)

Optional: Mayer, Christopher, Karen Pence, and Shane M. Sherlund, "The Rise in Mortgage Defaults," *The Journal of Economic Perspectives*, Vol. 23, No. 1 (Winter, 2009), pp. 27-50.

Optional: Mian & Sufi "The Consequences of Mortgage Credit Expansion: Evidence from the U.S. Mortgage Default Crisis" *Quarterly Journal of Economics* (2009)

Discussion: Was the 2008 financial crisis unstoppable?

### Class 12: Real Estate Brokerage and Wrap-Up (Nov. 27)

Readings: Lecture Notes

"How to Get a Better Deal From a Real Estate Agent" *New York Times* (Oct 24, 2019)

"Realtors Resist Changes in Commissions" *New York Times* (Aug 16, 2024)

Optional: Barwick, Panle Jia, Parag A. Pathak & Maisy Wong "Conflicts of Interest and Steering in Residential Brokerage" *AEJ: Applied Economics*

Optional: Levitt and Syverson, "Market Distortions when Agents are Better Informed: A Theoretical and Empirical Exploration of the Value of Information in Real Estate Transactions," *Review of Economics and Statistics*, November 2008.

Discussion: What are the risks associated with the current changes in broker compensation?

### Friday: R Assignment #3 Due

### Final Assessment: Details to be announced by Arts and Sciences

Please note that the last day you can drop this course without academic penalty is November 4, 2024.

## Other Useful Links

- [Become a volunteer note taker](#)
- [Accessibility Services Note Taking Support](#)
- [Credit / No-Credit in RSM courses](#)
- [Rotman Commerce Academic Support](#)
- [Where to find teaching assistant opportunities](#)

## URL links for print

- ACORN: <http://www.acorn.utoronto.ca/>
- Email Accessibility Services: [accessibility.services@utoronto.ca](mailto:accessibility.services@utoronto.ca)
- Accessibility Services website: <http://studentlife.utoronto.ca/as>
- University's Plagiarism Detection Tool FAQ: <https://uoft.me/pdt-faq>
- The University of Toronto's Code of Behaviour on Academic Matters: <http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>
- Information Commons Help Desk: <http://help.ic.utoronto.ca/category/3/utmail.html>
- Become a volunteer note taker: <https://studentlife.utoronto.ca/program/volunteer-note-taking/>
- Accessibility Services Note Taking Support: <https://studentlife.utoronto.ca/service/note-taking-support/>
- Credit / No-Credit in RSM courses: <https://rotmancommerce.utoronto.ca/current-students/degree-requirements/credit-no-credit-option/>
- Rotman Commerce Academic Support: <https://rotmancommerce.utoronto.ca/current-students/academic-support/>
- Book an appointment with a writing or presentation coach: <http://uoft.me/writingcentres>
- Writing and Presentation Coaching academic support page: <https://rotmancommerce.utoronto.ca/current-students/academic-support/writing-and-presentation-coaching/>
- Centre for Professional Skills Teamwork Resources page: <https://rotmancommerce.utoronto.ca/teamwork-resources>
- Book an appointment with a Teamwork Mentor: <http://uoft.me/writingcentres>