

# Course Outline

#### **RSM 494 H1 S**

**Technology Strategy** 

Winter 2022

Course Meets: Mondays 3PM-5PM in room WO30

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# Course Scope and Mission

Innovation is a key driver of growth in firms, industries and national economies. To manage technological innovation effectively is crucial for entrepreneurs, SMEs and large enterprises.

In Technology Strategy we will examine how firms can protect their technology and develop cooperative and competitive strategies in the market for technology. We will cover the basic of patent analytics, examining various datasets and indexes that provide information on the technology trends and landscapes.

We will discuss recent research identifying how organizational structure and financial incentives may affect research outcomes and to spur creativity. We will also examine how firm innovation is affected by firm's location, national innovation policy and industry regulation.

# Course Prerequisites

#### RSM392H1

# 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.

# Required Readings

The lecture notes are chapters of my unpublished manuscript

"The Management of Innovation: Creating and Leveraging Technology Capital"

I will post the relevant chapters online before each class.

## **Evaluation and Grades**

Grades are a measure of the performance of a student in individual courses. Each student shall be judged on the basis of how well they have command of the course materials.

Work		Due Date	
Quiz 1	10%	January 24 <sup>th</sup>	
Quiz 2	10%	February 14 <sup>th</sup>	
Quiz 3	10%	March 14 <sup>th</sup>	
Team presentation	20%	Lectures 10-12	
Patent analytics report	50%	Friday April 4 <sup>th</sup> at midnight	

# **Course Format and Expectations**

#### **OUIZZES**

You will complete three online quizzes testing the underlying knowledge behind the required readings. Quiz 1 focuses on innovation and intellectual property (lectures 1 and 2). Quiz 2 focuses on licensing, open innovation and inducement prizes (lectures 4 and 5). The final quiz focuses on innovation incentives, innovation ecosystems and risk-mitigating technologies (lectures 6,7 and 8). The quizzes will comprise a mix between multiple choice questions and short answers. They will be posted online 24 hours before the due date.

#### PATENT ANALYTICS REPORT

You will complete a patent analytics report, in which you will have the possibility to use a variety of patent analytics indicators that we will learn during the course.

Your paper will address a technology area that is important to you. During the course I will provide additional information on the available data sources and the expected format of the report.

#### **TEAM PRESENTATIONS**

We will organize the class in groups of 3-5 students. In each of the last three classes, I will assign a case to two teams, and will ask each team to argue two opposite strategies. For example, I will request team A to argue that firm X should patent a particular technology, and to team B to argue that it is better not to patent it and keep the technology secret.

Each group will develop a 15-30 minutes presentation of a suggested solution to the managerial problem. The presentation will be graded on the thoroughness of analysis, clarity of presentation and their use of the theoretical tools studied in the course. Groups must present on their assigned week.

Groups are responsible for their internal management, but the instructor is always available for consultation if difficulties persist.

# Ouriginal

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 Centre for Teaching Support & Innovation web site (<a href="https://uoft.me/pdt-faq">https://uoft.me/pdt-faq</a>).

# Writing Assignments or Presentations

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 <u>book an appointment with a writing or presentation coach</u> through the RC Centre for Professional Skills Writing Centre. For more information about writing centres, student supports, and study resources, see the <u>Writing and Presentation Coaching academic support page</u>.

## Team or Group Assignments

The team presentations require students to work in teams. 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 <u>Centre for Professional Skills Teamwork Resources page</u> for tips, strategies, and best practices. You can also <u>book an appointment with a teamwork mentor</u> 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.

# **Electronic Course Materials**

Each group will present a case that can be obtained from Harvard Business Publishing. I will email to each group the link to the case to be presented two-weeks before the presentation. The other electronic readings will be available for download from the portal.

These materials will cost a total of roughly \$15.00. The use of these materials complies with all University of Toronto policies which govern fees for course materials.

# Weekly Schedule

Session	Date	Topic	Readings
1	9- Jan-2023	Introduction – Innovation: strategy, economics and policy	Lecture notes
2	16- Jan	Intellectual property rights	Lecture notes
3	23-Jan	Patent analytics	Lecture notes
4	30-Jan	Licensing strategies	Lecture notes
5	6- Feb	Open innovation and inducement prizes	Lecture notes
6	13 - Feb	Innovation incentives and creative destruction	Lecture notes
7	27-Feb (after reading week)	Innovation ecosystems and regional innovation policies	Lecture notes
8	6- March	Risk mitigating technologies	Lecture notes
9	13- March	Guest speaker	
10	20- March	Group presentations	
11	27-March	Group presentations	
12	3- April	Group presentations	

Please note that the last day you can drop this course without academic penalty is March 19, 2022.

## Policies and Procedures

Missed Tests and Assignments (including mid-term and final-term assessments)

Students who miss a test or assignment for reasons entirely beyond their control (e.g. illness) may request special consideration.

In such cases, students must:

- 1. Notify the instructor AND the Rotman Commerce Program Office **on the date** of the missed course deliverable, e.g. missed test, final assessments, assignment or class (in the case of participation marks).
- 2. Complete a Request for Special Consideration Form and submit it along with your Absence Declaration on ACORN (please read the instructions on how to use the Absence Declaration in ACORN) within **2 business days** of the originally scheduled course deliverable. Please email your documents to rotmancommerce.info@utoronto.ca

Students who do not provide this information will be given a grade of 0 (zero) for the missed course deliverable.

If a quiz is missed for reasons beyond the student's control its grade is going to be replaced with a re-weighting of the other quizzes. Missing patent analytics report for reasons beyond the student's control will receive an extension.

## Late Assignments

Assignments are due on the portal at the date/time specified in the outline and in the portal. Quizzes will received a grade of 0 (zero) if they are not received by the due date.

The patent analytics report is due on the portal at the date/time specified in the outline and portal. The grade will be reduced by 10% if the report is not received by the specified time, and by an additional 10% for each additional 2 days late. On top of these penalties, the report will be considered missed if it is not received within four days from the due date.

If the delay is the result of illness or domestic affliction, the individual involved must contact the instructor BEFORE the assignment is due to explain the position. A medical certificate or other supporting evidence will be required, as described above.

Students who, for reasons beyond their control, are unable to submit the patent analytics report by its deadline must obtain approval from the instructor for an extension. Supporting documentation will be required as per the policy on missed tests and assignments.

# 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 <a href="mailto:emailto:

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.

# Academic Integrity

Academic Integrity is a fundamental value essential to the pursuit of learning and scholarship at the University of Toronto. Participating honestly, respectively, 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.

<u>The University of Toronto's Code of Behaviour on Academic Matters</u> 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 following procedures outlined in the *Code of Behaviour on Academic Matters*. If you have any question 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 resources such as 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 help.ic.utoronto.ca/category/3/utmail.html.

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.

## Quercus and the Course Page

The online course page for this course is accessed through Quercus. To access the course page, go to <u>q.utoronto.ca</u> and log in using your UTORid and password. Once you have logged in, you will be at the Quercus Dashboard. On this page you will see all of the courses you are presently enrolled in. If you don't see the course listed here but you are properly registered for the course in ACORN, wait 48 hours.

## 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.

# FIPPA Language

#### Notice of video recording and sharing (Download and re-use prohibited)

This course, including your participation, will be recorded on video and will be available to students in the course for viewing remotely and after each session.

Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation, and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor.

For questions about recording and use of videos in which you appear please contact your instructor.

#### Other Useful Links

- Become a volunteer note taker
- Accessibility Services Note Taking Support
- Credit / No-Credit in RSM courses
- Rotman Commerce Academic Support

### URL links for print

- Request for Special Consideration Form: <a href="https://rotmancommerce.utoronto.ca/current-students/forms-requests-and-appeals/forms/">https://rotmancommerce.utoronto.ca/current-students/forms-requests-and-appeals/forms/</a>
- ACORN: http://www.acorn.utoronto.ca/
- Email Accessibility Services: accessibility.services@utoronto.ca

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