Huron University College Department of Economics

Economics 4491G– Economics of Innovation and Intellectual Property Winter 2021 (COVID-19 Pandemic)

Classroom: On-line Time: 11:30-12:30 Wednesdays 11:30-1:30 Fridays

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Instructor's Office Hours: By appointment on Wednesday 9:30-10:30am. If this timing is not conducive to your schedule, please feel free to email me so that I set up another time for you.

Course Webpage:

https://owl.uwo.ca/portal

Please check announcements of the course in the above address regularly.

Course Description & Objectives

Innovation is in the center of technological progress, economic growth, and standards of living. Nevertheless, the public good nature of innovation and its generated knowledge result in knowledge spillovers, which discourage innovative activities. Governments are after different incentive mechanisms for innovation that result in economic growth. Intellectual properties, including patents and copyrights, are among these incentive mechanisms for innovation, as they grant exclusive rights to innovators. Such rights prevent copying the innovation by rivals, and capture spillovers. Econ 4491: Economics of Innovation and Intellectual Property focuses particularly on research and development as an input to innovation process, intellectual property, and policies for creating incentives for innovation. For example, we will learn about controversial pharmaceutical patents and proper policies aiming at them. With such patents, pharma companies are able to charge higher prices for their innovative drugs, which is not good for consumer welfare, and without these patents, there is no incentive for innovation in first place, and consumer welfare will be lowered again due to lack of the existence of drugs. Other areas that we may touch in this course are how patent systems operate and whether they are efficient, who patent trollers are, and what the relation between copyrights and digital piracy, including music and software piracy, is. At the end of this course, students will gain knowledge on intellectual property and develop skills for performing policy analysis on systems targeting innovative activities.

Course Methods

We begin the term with getting to know intellectual properties, including their width, length, and their impacts on economic value. We will have discussions on patents as incentive mechanisms for innovative activities. Conditional on time, we proceed with discussions on market structure, market power, and mergers and how patents matter in merger decisions of firms. We will talk about patent thickets and fragmentation in patent ownership. We continue this term with the analysis on pharmaceutical patents and research and development. This course engages students

in understanding new topics in microeconomics and intellectual property by requiring them to write short essays on various journal articles. There is a large amount of material to cover in this course. I will attempt my best to cover as much as the limited time will permit. We also cover a number of topics in industrial organization as a background for the research on innovation.

Prerequisites

Registration in fourth year of the Honors Specialization in Economics or honors standing in a Major/ Major combination including the Major in Economics, or permission of the Department.

Textbooks

- Main text which is optional: Scotchmer, Suzanne (2004), Innovation and Incentives, the MIT Press (ISBN: 0262195151)
- **Optional:** Jaffe, Adam and Josh Lerner (2007), Innovation and its Discontents, Princeton University Press (ISBN: 0691127948)
- **Optional:** Luis M. B. Cabral (2000), Introduction to Industrial Organization, the MIT Press (ISBN: 97800262032865)

How classes are conducted online

- -Students in this course will be assigned to read a lot of material due to the nature of the course.
- -I will post lecture slides (if any) as well as my recordings for those notes on Owl for your convenience.
- -These are the lecture notes that I base my lectures on, but of course, I elaborate on them during recorded lectures.
- -All the materials covered in lectures either on the posted slides or not are in exams.
- -Students should read and listen to the posted material from 11:30 to 12:30 on Fridays.
- -I hold live classes in Zoom from 12:45 to 1:15 for your Q&A on Fridays. A link to Zoom meeting will be posted on Owl.
- -On Wednesdays, from 11:30 am to 12:15 pm, students will write a **one-page** essay on journal articles or other material, such as TED talks, posted on Owl as part of their class participation mark. I will be available during this time, in case students have questions.
- -The essay should include a summary of the topic, incorporate relevant material from what is learned in class, and contain a paragraph on students' discussion of findings. In other words, getting a full mark on the essay requires demonstration of deep thinking of students about the subject in the article or other material.
- -Considering possible time zone differences among students, these essays should be submitted in a format of a pdf file to the allocated assignment section on Owl by 11:15 am on the following Friday.
- -Dependent on the number of students, these essays will be a group work or individual work. If they are group work, only the designated student from each group will submit the essay to Owl. I will announce groups on Owl.
- -The material for essays will be posted on Owl in advance.
- -The essay should be typed in font size 12, margins of 1.5 cm, and one and a half spacing between lines.
- In the case of journal articles, students are not expected to summarize every detail and technicality for writing these essays.

Instructor's Intellectual Property on Lectures

I would like to have a reminder that I, the instructor, own the intellectual property of my lecture and lecture materials even when such lectures or materials are posted online and students are not to post lectures or lecture materials to any other websites or platforms or use the lecture recording or materials for any other purpose without my consent.

I also prohibit the recording of live lectures or recorded lectures.

Completion

Please be prepared to have a lot of readings in this course due to the nature of the course. Students will be assessed based on the following activities:

• Class participation: 38% (essays)

• Midterm [**Feb 24**]: 31%

• Final exam: 31%

-Class participation (38%): Explained above in "How classes are conducted online."

-In case of group work for class participation activities, I will group students, and I will announce groups on Owl. Only the designated representative from each group should submit the essay for that group.

-If a student is sick during these essay writings, conditional on providing proper documentation, (please consult with Academic Accommodation for Medical/Non-Medical Grounds below) I will use the average mark of their other essays for the missed essay. In case of group work, the rest of the group continue with their essay assignment.

-In case of a group work for class participation activities, if a student in a group does not participate, it is the duty of the rest of the group to inform the instructor. How?

- A student who feels a groupmate is **shirking** should send an email to that student, cc me (menteza@uwo.ca) in that email, and explain the problem to that student.
- o I will also contact that student, and if I am convinced that the suggested student is indeed shirking, I will give that student zero on that assignment.
- o I do not accept any complaint from groupmates after the assignment is submitted.

-Midterm Exam (31% on Feb 24): A note on simple algebra and rules of derivatives are posted on Owl. Midterm exam is based on lectures, which will be specified by the instructor. Students will have access to the exam from 11:30 am on Wednesday Feb 24. Exams are due within 24 hours (11:30 am on Thursday Feb 25) online. More information will be provided. The important note is that in this 24 hours, whenever students open their exam file on Owl, they only have access to the exam for the duration of the exam and they can not open the exam again later. Thus, pick a time for your exam, which is the most convenient for you, within the 24 hours window.

For Academic Accommodation for Medical/Non-Medical Grounds please refer to the following. In case a proper documentation is not provided in a timely manner, the student receives no grade on that task and his/her final grade will be computed in accordance with the specified assessment above. If a proper documentation is provided, there will be no make-up test for the midterm exam. Instructor will shift the grade of the missed test to the final exam, which is cumulative. Any complaint on the midterm mark should be done within 15 days from the day that midterm marks are reported by the instructor. No complaint on the midterm mark will be considered after this date. Any student that submits a test for remarking should understand that their grade may improve, remain unchanged or perhaps even decrease as a result of the remarking process.

-Final Exam (31%): The date of the final exam will be decided by registrar's office. Final exam is online and cumulative. More information will be provided later.

Policy on Missed Classes

If you miss a class, read notes carefully and if you still have questions, please contact me for your questions during office hours. Otherwise, you will need to use a tutor.

Tentative Course Schedule

A variety of sources will be used for the following topics in addition to the textbook. We will cover patents, copyrights, and trademarks. We will proceed with how patents incentivise innovation. We will also cover patents, mergers, and anti-trust regulations as well as the role of market structures and preference externality in innovative activities. If time permits, we will cover pharmaceutical patents and R&D. Please note that this course schedule is tentative. Some of the materials in this schedule may need more or less emphasis. To accommodate that need, this schedule may be updated as we continue through the term.

Communication with the Instructor:

- You can contact me at menteza@uwo.ca
- When emailing, the **subject of the e-mail must contain ECON 4491**. Otherwise, the email will not be considered, as I do not know exactly who the sender is.
- I will respond to emails within two business days.

Conduct of Students in Lectures and Office Hours:

The registration at Huron University College implies that registered students have accepted the principals of respect, dignity, and well-being of others. Thus, students are expected to follow a proper behaviour. For more information about rules and regulations of Code of Student Conducts, you may consult with Code of Student Conduct Policy available at https://www.uwo.ca/univsec/pdf/board/code.pdf. Moreover, students should behave in a professional manner that supports the learning environment of others during lectures or office hours.



Appendix to Course Outlines: Academic Policies & Regulations 2020 - 2021

Prerequisite and Antirequisite Information

Students are responsible for ensuring that they have successfully completed all course prerequisites and that they have not completed any course antirequisites. Unless you have either the requisites for this course or written special permission from your Dean to enrol in it without them, you may be removed from this course and it will be deleted from your record. If you enrol in this course despite having already taken an antirequisite you may be removed from this course and it will be deleted from your record. Removals for these reasons may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites or for having already taken the antirequisites.

Conduct of Students in Classes, Lectures, and Seminars

Membership in the community of Huron University College and Western University implies acceptance by every student of the principle of respect for the rights, responsibilities, dignity and well-being of others and a readiness to support an environment conducive to the intellectual and personal growth of all who study, work and live within it. Upon registration, students assume the responsibilities that such registration entails. The academic and social privileges granted to each student are conditional upon the fulfillment of these responsibilities.

While in the physical classroom or online classroom, students are expected to behave in a manner that supports the learning environment of others. Students can avoid any unnecessary disruption of the class by arriving in sufficient time and ready for the start of the class, by remaining silent while the professor is speaking or another student has the floor, and by taking care of personal needs prior to the start of class. If a student is late, or knows that he/she will have to leave class early, be courteous: enter and leave quietly. Please see the Code of Student Conduct at:

www.huronuc.on.ca/sites/default/files/pdfs/Code%20of%20Student%20Conduct.pdf.

Technology

It is not appropriate to use technology (such as, but not limited to, laptops, cell phones) in the classroom for non-classroom activities. Such activity is disruptive and distracting to other students and to the instructor and can inhibit learning. Students are expected to respect the classroom environment and to refrain from inappropriate use of technology and other electronic devices in class.

Adding / Dropping Courses

If you think that you are too far behind to catch up or that your workload is not manageable, you should consult your Academic Advisor. If you are considering reducing your workload by dropping one or more courses, this must be done by the appropriate deadlines. Please refer to the Huron website, https://huronatwestern.ca/academic-advising or review the list of official Sessional Dates on the Academic Calendar, available here: http://www.western.calendar.uwo.ca/SessionalDates.cfm.

You should consult with the course instructor and the Academic Advisor who can help you consider alternatives to dropping one or more courses. Note that dropping a course may affect OSAP and/or Scholarship/Bursary eligibility.

Class Cancellations

In the event of a cancellation of class, every effort will be made to post all relevant information on the OWL class site and on the Huron website at, https://huronatwestern.ca/about/accessibility.

Attendance Regulations for Examinations

A student is entitled to be examined in courses in which registration is maintained, subject to the following limitations:

- 1) A student may be debarred from writing the final examination for failure to maintain satisfactory academic standing throughout the year.
- 2) Any student who, in the opinion of the instructor, is absent too frequently from class or laboratory periods in any course will be reported to the Dean of the Faculty offering the course (after due warning has been given). On the recommendation of the Department concerned, and with the permission of the Dean of that Faculty, the student will be debarred from taking the regular examination in the course. The Dean of the Faculty offering the course will communicate that decision to the Dean of the Faculty of registration.

Please see the policy on Attendance Regulations for Examinations here: https://www.uwo.ca/univsec/pdf/academic_policies/exam/attendance.pdf.

Academic Student Support Services

For advice on course selections, degree requirements, and for assistance with requests for medical accommodation, students should email an Academic Advisor in Huron's Student Support Services at https://huronatwestern.ca/academic-advising.

Department Chairs, Program Directors and Coordinators are also able to answer questions about individual programs. Contact information can be found on the Huron website at: https://huronatwestern.ca/contact/contact-directory.

Copyright Regarding Course Material

Lectures and course materials, including PowerPoint presentations, tests, outlines, and similar materials are protected by copyright. Faculty members are the exclusive owner of copyright in those materials they create. Students may take notes and make copies for their own use. Students may not allow others to reproduce or distribute lecture notes and course materials publicly (whether or not a fee is charged) without the express written consent of a faculty member. Similarly, students own copyright in their own original papers and exam essays. If a faculty member is interested in posting a student's answers or papers on the course website, he/she should ask for the student's written permission.

Statement on Academic Integrity

The International Centre for Academic Integrity defines academic integrity as "a commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility. From these values flow principles of behaviour that enable academic communities to translate ideals to action." (CAI Fundamental Values Project, 1999).

A <u>lack</u> of academic integrity is indicated by such behaviours as the following:

- Cheating on tests;
- Fraudulent submissions online;
- Plagiarism in papers submitted (including failure to cite and piecing together unattributed sources);
- Unauthorized resubmission of course work to a different course;
- Helping someone else cheat;
- Unauthorized collaboration;
- Fabrication of results or sources;
- Purchasing work and representing it as one's own.

Academic Integrity: Importance and Impact

Being at university means engaging with a variety of communities in the pursuit and sharing of knowledge and understanding in ways that are clear, respectful, efficient, and productive. University communities have established norms of academic integrity to ensure responsible, honest, and ethical behavior in the academic work of the university, which is best done when sources of ideas are properly and fully acknowledged and when responsibility for ideas is fully and accurately represented.

In the academic sphere, unacknowledged use of another's work or ideas is not only an offence against the community of scholars, it is also an obstacle to academic productivity. It may also be understood as fraud and may constitute an infringement of legal copyright.

A university is a place for fulfilling one's potential and challenging oneself, and this means rising to challenges rather than finding ways around them. The achievements in an individual's university studies can only be fairly evaluated quantitatively through true and honest representation of the actual learning done by the student. Equity in assessment for all students is ensured through fair representation of the efforts by each.

Acting with integrity at university constitutes a good set of practices for maintaining integrity in later life. Offences against academic integrity are therefore taken very seriously as part of the university's work in preparing students to serve, lead, and innovate in the world at large.

A university degree is a significant investment of an individual's, and the public's, time, energies, and resources in the future, and habits of academic integrity protect that investment by preserving the university's reputation and ensuring public confidence in higher education.

Students found guilty of plagiarism will suffer consequences ranging from a grade reduction, to failure in the course, to expulsion from the university. In addition, a formal letter documenting the offence will be filed in the Dean's Office, and this record of the offence will be retained in the Dean's Office for the duration of the student's academic career at Huron University College.

Statement on Academic Offences

Scholastic offences are taken seriously, and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, as per the Academic Calendar: http://www.westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=1&Command=showCategory&SelectedCalendar=Live&ArchiveID=#SubHeading 189.

Turnitin.com

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (https://www.turnitin.com/).

Computer-Marked Tests/exams

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Clickers

Personal Response Systems ("clickers") may be used in some classes. If clickers are to be used in a class, it is the responsibility of the student to ensure that the device is activated and functional. Students must see their instructor if they have any concerns about whether the clicker is malfunctioning. Students must use only their own clicker. If clicker records are used to compute a portion of the course grade:

- the use of somebody else's clicker in class constitutes a scholastic offence
- the possession of a clicker belonging to another student will be interpreted as an attempt to commit a scholastic offence.

Academic Accommodation for Students with Disabilities

Students who require **special** accommodation for tests and/or other course components must make the appropriate arrangements with the Student Development Centre (SDC). Further details concerning policies and procedures may be found at: http://academicsupport.uwo.ca/.

Please review the full policy at,

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic%20Accommodation_disabilities.pdf.

Academic Consideration for Missed Work

Students who are seeking academic consideration for missed work during the semester may submit a self-reported absence form online provided that the absence is 48 hours or less and the other conditions specified in the Senate policy at

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf are met.

Students whose absences are expected to last longer than 48 hours, or where the other conditions detailed in the policy are not met (e.g., work is worth more than 30% of the final grade, the student has already used 2 self-reported absences, the absence is during the final exam period), may receive academic consideration by submitting a Student Medical Certificate (for illness) or other appropriate documentation (for compassionate grounds). The Student Medical Certificate is available online at https://www.uwo.ca/univsec/pdf/academic policies/appeals/medicalform.pdf.

All students pursuing academic consideration, regardless of type, must contact their instructors no less than 24 hours following the end of the period of absence to clarify how they will be expected to fulfill the

academic responsibilities missed during their absence. Students are reminded that they should consider carefully the implications of postponing tests or midterm exams or delaying submission of work and are encouraged to make appropriate decisions based on their specific circumstances.

Students who have conditions for which academic accommodation is appropriate, such as disabilities or ongoing or chronic health conditions, should work with Accessible Education Services to determine appropriate forms of accommodation.

Requests for Academic Consideration Using the Self-Reported Absence Form

Students who experience an unexpected illness or injury or an extenuating circumstance (48 hours or less) that is sufficiently severe to temporarily render them unable to meet academic requirements (e.g., attending lectures or labs, writing tests or midterm exams, completing and submitting assignments, participating in presentations) should self-declare using the online Self-Reported Absence portal. This option should be used in situations where the student expects to resume academic responsibilities within 48 hours or less.

Please note the following conditions that are in place for self-reporting or medical of extenuating circumstances:

- Students will be allowed **a maximum of two self-reported absences** between September and April and one self-reported absence between May and August;
- Any absences in excess of the number designated in clause a above, regardless of duration, will
 require students to present a <u>Student Medical Certificate (SMC)</u>, signed by a licensed medical or
 mental health practitioner, detailing the duration and severity of illness, or appropriate
 documentation supporting extenuating circumstances to the Academic Counselling unit in their
 Faculty of registration no later than two business days after the date specified for resuming
 responsibilities.
- Self-reported absences will not be allowed for scheduled final examinations; for midterm examinations scheduled during the December examination period; or for final lab examinations scheduled during the final week of term.
- Self-reporting may not be used for assessments (e.g. midterm exams, tests, reports, presentations, or essays) worth more than 30% of any given course.
- Students must be in touch with their instructors no later than 24 hours after the end of the period covered by the Self-Reported Absence form, to clarify how they will be expected to fulfil the academic expectations they may have missed during the absence.

Please review the full policy at,

https://www.uwo.ca/univsec/pdf/academic policies/appeals/accommodation illness.pdf.

Policy on "Academic" Accommodation - Medical / Non-Medical Grounds

(a) <u>Medical Grounds</u> for assignments worth 10% or more of final grade: Go directly to Huron Support Services/ Academic Advising, or email huronsss@uwo.ca.

University Senate policy, which can be found at,

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf , requires that all student requests for accommodation on medical grounds for assignments worth 10% or more of the final grade be made directly to the academic advising office of the home faculty (for Huron students, the "home faculty" is Huron), with supporting documentation in the form (minimally) of the Senate-approved Student Medical Certificate found at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

The documentation is submitted in confidence and will not be shown to instructors. The advisors will contact the instructor when the medical documentation is received and will outline the severity and duration of the medical challenge as expressed on the Student Medical Certificate and in any other supporting documentation. The student will be informed that the instructor has been notified of the presence of medical documentation and will be instructed to work as quickly as possible with the instructor on an agreement for accommodation.

The instructor will not normally deny accommodation where appropriate medical documentation is in place and where the duration it describes aligns with the due date(s) of assignment(s). Before denying a request for accommodation on medical grounds, the instructor will consult with the Dean. The instructor's decision is appealable to the Dean.

(b) Accommodation on <u>Medical Grounds</u> for assignments worth *less than 10%* of final grade: Consult Instructor Directly

When seeking accommodation on medical grounds for assignments worth less than 10% of the final course grade, the student should contact the instructor directly. The student need only share broad outlines of the medical situation. The instructor **may** require the student to submit documentation to the academic advisors, in which case she or he will advise the student and inform the academic advisors to expect documentation. The instructor may <u>not</u> collect medical documentation. The advisors will contact the instructor when the medical documentation is received and will outline the severity and duration of the medical challenge as expressed on the Student Medical Certificate and in any other supporting documentation. The student will be informed that the instructor has been notified of the presence of medical documentation and will be instructed to work as quickly as possible with the instructor on an agreement for accommodation.

The instructor will not normally deny accommodation where appropriate medical documentation is in place and where the duration it describes aligns with the due date(s) of assignment(s). Before denying a request for accommodation on medical grounds, the instructor will consult with the Dean. The instructor's decision is appealable to the Dean.

(c) Non-Medical Grounds: Consult Huron Support Services/ Academic Advising

Where the grounds for seeking accommodation are not medical (e.g. varsity sports, religious, compassionate, bereavement) the student should contact an academic advisor directly. All accommodation requests must include a completed <u>Accommodation Request Form</u>. Late penalties may apply at the discretion of the instructor.

Where a student seeks accommodation on non-medical grounds where confidentiality is a concern, the student should approach an academic advisor with any documentation available. The advisors will contact the instructor after the student's request is received and will outline the severity and duration of the challenge without breaching confidence. The student will be informed that the instructor has been notified that significant circumstances are affecting or have affected the student's ability to complete work, and the student will be instructed to work as quickly as possible with the instructor on an agreement for accommodation. Before denying a request for accommodation where documentation has been submitted to an academic advisor, the instructor will consult with the Dean. The instructor's decision is appealable to the Dean.

Mental Health & Wellness Support at Huron and Western

University students may encounter setbacks from time to time that can impact academic performance. Huron offers a variety of services that are here to support your success and wellbeing. Please visit

<u>https://huronatwestern.ca/student-life-campus/student-services/wellness-safety</u> for more information or contact staff directly:

Wellness Services: huron.uwo.ca Community Safety Office: safety@huron.uwo.ca

Chaplaincy: gthorne@huron.uwo.ca

Additional supports for Health and Wellness may be found and accessed at Western through, www.uwo.ca/uwocom/mentalhealth/.

Important Dates & Directory

For a current and up-to-date list of important dates and campus directories, please visit:

- **Huron Important Dates:** https://huronuc.ca/important-dates-and-deadlines
- Academic Calendar & Sessional Dates: http://www.westerncalendar.uwo.ca/SessionalDates.cfm
- Huron Directory Faculty, Staff and Administration: https://huronuc.ca/index.php/contact/contact-directory
- Western Directory Faculty, Staff and Administration: https://www.uwo.ca/directory.html