Huron University College Department of Business and Economics Econ 4491G 550 – Economics of Innovation and Intellectual Property Winter 2019

Classroom: W17 Time: Fridays 11:30-2:30

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Instructor's Office Hours: Fridays 10 to 11. To avoid any delay during office hours, please send me an email to book a spot. If this timing is not conducive to your schedule, please feel free

to email me so that we can set up an appointment.

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 spillover, which discourages innovative activities. Intellectual property rights, including patents and copy rights, create incentives for innovation by granting exclusive rights to innovators and capturing spillovers.

Economics 4491G familiarizes students with interesting topics in recent research on economics of innovation and intellectual property. For example, we will learn about copy rights and digital piracy, including music and software piracy, pharmaceutical patents, and R&D. At the end of this course, students will gain knowledge on intellectual property rights and develop skills for performing policy analysis on systems targeting innovative activities.

Course Methods

Each student's own research project is a major part of the course aside from the lectures presented by me and discussions on recent published journal and news articles. This one of a kind undergraduate level research experience helps students to develop critical thinking and obtain capabilities for policy analysis. To engage students further in the course and help them to strengthen their presentation skills, students will also present their research to the class as well as chapters of Economic Analysis of the Digital Economy. This book is particularly interesting by covering questions such as the nature and incidence of software piracy as well as copy right and profitability of authorship.

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.

Antirequisites

None

Course Completion

The final grade is based on the following components:

- Individual class participation: 10%
- Individual or group book chapter presentation [Dates will be specified in class]: 10%
- Group or individual term research proposal and annotated bibliography [Feb 08, right in the beginning of the class]: 20%
- Individual Midterm Exam [March 22 during class time]: 30%
- Group or individual term paper presentation [Dates will be specified in class]: 15% In case I decide to have poster presentation instead of the term paper, groups will have between six to seven poster progress observation sessions with me instead of the term paper presentation. Then, the mark of these poster observations will make the 15% of the mark. The dates of observations will be specified in class.
- Group or individual term paper or poster [In case of term paper, the due date is on April
 9. In case of poster, it will be at the CURL conference on Wednesday April 10]: 15%
- The attendance on Jan 25 is mandatory. Being absent warrants loosing 2 marks.

-Individual class participation is 10% of the mark and is based on participation in all sorts of class discussions, including not limited to discussions on TED talks, assigned papers and news articles.

- -Dependent on the number of enrolled students, instructor will decide on
 - having the term project and book chapter presentation in the format of group or individual work
 - having a term paper or a poster presentation.

-Group or individual Book chapter presentation is 10% and presentation days will be decided by the instructor in class. Presentations are based on chapters of *Economic Analysis of the Digital Economy*. The marking scheme for book chapter presentations is posted on Owl.

-Term research proposal and Annotated Bibliography are each 10% of the mark and both are due at the beginning of the class on Feb 08. Students should follow the guideline on how to write and hand in the proposal and annotated bibliography posted on Owl to get the full mark. Each of the proposal and annotated bibliography should be **no more than two pages, typed, and stapled**. For the annotated bibliography part, Ms. Colleen Burgess from Huron library will have a three-hour lecture on Jan 25 from 11:30 to 2:30 during class time. At the end of these classes, she will conduct an assessment which will be counted toward the 10% mark of the annotated bibliography. Moreover, attendance in her lectures are mandatory. Being absent warrants loosing 2 marks.

To provide more guidance for students an example of a proper proposal is posted on owl as well as the marking scheme that the instructor will use for marking proposals. Please note that you cannot choose the topic of the example proposal.

- -Midterm is 30% of the mark and is on March 22 during the class time. A note on simple algebra and rules of derivatives are posted on Owl. The material tested in the midterm exam will be specified by the instructor. All the material covered during lectures, including what is on the board, explained by the instructor, and posted on Owl will be questioned in your midterm exam. Please note that the posted lecture notes on Owl are only used as the base for lectures, but of course I elaborate on them in the class. These notes are useful for review, but they are not meant to take the place of lectures. Students who rely on notes only, they traditionally do not do well on their exams in my courses.
- **-No make-up tests will be provided** for missed midterm exams. 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, the grade of the missed test will be prorated to other tasks of the course.
- -If a student feels that his/her test was not marked properly, he/she should feel free to contact the instructor within 6 calendar days of the date on which the test is handed back to the class.
- -Presentation of the term paper is 15% of the mark and the timing of presentations will be specified in class by the instructor. Each presenter or presenting group must prepare Power Point slides for their presentation, and the length of presentation is 20 minutes. Students should follow the guideline on how to prepare their presentation and slides posted on Owl to get the full mark. Slides need to be nicely presented, and they have to explain the main point. To provide more guidance for students an example of a good presentation slides is posted on owl as well as the marking scheme that the instructor will use for marking each presentation. Please note that you cannot choose the topic of the example presentation.

Note: If instructor decides to have poster presentation, instead of class presentation, we will have a number of poster progress observations in a sense that each group or student start making their poster and as they progress they bring it to the instructor to receive feedback along the process. The timing of these observations will be specified in class by the instructor. These observations will constitute 15% of the mark. Observations will be mostly on March 01, March 08, March 15, March 29, and April 05. Once you get my approval, you go and print the poster.

-Policy for students who are absent from their presentation or poster progress reports: If a student is absent, unless proper documentation is provided in a timely manner, that presenter lose the whole presentation mark. For the proper documentation concept, please refer to Academic Accommodation for Medical/Non-Medical Grounds in the following. If a proper documentation is provided, the grade of the missed presentation will be prorated to other tasks of the course, which will be decided by the instructor.

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

- O A student who feels a groupmate is **shirking** should send an email to that student, cc me (menteza@huron.uwo.ca) in that email, and explain the problem to that student at least a week before the due date of the group work in the course.
- 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.

-Term paper is 15% of the mark, and it is due on April 9 in the beginning of the class. A guide line for how to write and submit a proper term paper is posted on Owl, and students should follow that to get the complete mark. To provide more guidance for students, an example of a good paper is posted on owl as well as the marking scheme that the instructor will use for marking each paper. Please note that you cannot choose the topic of the example paper.

-In the case of the poster instead of term paper, groups will present their poster at the CURL conference on Wednesday April 10. Groups should register in the conference via CURL's website. This will constitute 15% of the mark.

-A note on group formation if we end up having group work: I will group students in alphabetical orders, and I will announce groups on Owl. If a student would like to change his or her group and join another group, that student needs to get into a mutual agreement with a student in the other group. Then, both students should email me about their group change. Instructor will not do the negotiations. Any group change must be done by <u>January 18</u>. Changes after this date are not allowed.

Class Topics/Schedule

We are going to cover several topics in economics of intellectual property. An introduction to the topic is first presented in class and we then discuss the assigned readings on the topic. The assigned readings are typically recent empirical research papers which will be posted on the course webpage prior to each lecture as we progress. The purpose of in-class discussions on the papers is to provide students an opportunity to practice, develop, and learn about their analytical abilities. It is not expected that students study every part of the assigned paper and understand all the technicalities before the discussion in the class. Instead, students have to know the general idea in the paper.

Some of the topics that will be covered during lectures, as much as time permits, are:

- 1-Patents, copyrights, and trademarks
- 2-Patents as incentives for innovation
- 3- Patents, prizes, research contracts and joint ventures
- 4-Patents and anti-trust regulations
- 5-Market structure and innovation
- 6- Anti-commons, and cumulative innovations
- 7-Patent fragmentation and patent thickets
- 8-Patents and Economic Policy
- 9- Intellectual Property in the digital economy and economics of open source

- 10- Preference externality and innovation
- 11-Pharmaceutical patents
- 12-Research and Development

Each of these topics uses a variety of sources.

*** This course schedule is tentative. Some of the materials in this schedule might need more or less emphasis. To accommodate that need, this schedule might be updated as we continue through the term.

Textbooks

- Goldfarb et al. (2015), Economic Analysis of the Digital Economy (ISBN: 022620684x)
 This book is only available in ebook format for purchase
 (https://press.uchicago.edu/ucp/books/book/chicago/E/bo19243909.html). A copy of the book is also available in Huron library. This book is needed for your book chapter presentations.
- Optional: Scotchmer, Suzanne (2004), Innovation and Incentives, the MIT Press (ISBN: 0262195151)
- Optional: Luis M. B. Cabral (2000), Introduction to Industrial Organization, the MIT Press (ISBN: 97800262032865)

Lecture Notes:

- I will post lecture slides (if any) before class on the course webpage for your convenience.
- These are the lecture notes that I base my lectures on, but of course I elaborate on them in the class. These notes are useful for review, but they are not meant to take the place of lectures. Students who rely on notes only, they traditionally do not do well on their exams in instructor's courses.
- All the materials covered in lectures either on the posted slides or not are in the midterm exam.

Communication with the Instructor:

- Please only e-mail the instructor for administrative purposes and please only email to this address: menteza@huron.uwo.ca
- When emailing the instructor, 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 prefer to answer your course related questions in person to help you understand better and avoid any miscommunication via email or phone. So use office hours or feel free to make an appointment. I also welcome as many questions as possible during class time.

Note on Recording Lectures and Taking pictures

• Instructor prohibits recording her lectures or taking any picture during lectures.

Writing a Reference Letter:

• If you need a reference letter, I will need at least a two-week notice.

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. Laptops should be used for classroom purposes only so as not to disrupt the people sitting around. Students should arrive in sufficient time to be seated and ready for the start of the class and remain silent while the professor or another student is speaking. If a student is going to be late, or know that will have to leave class early, he or she should be courteous: sit in an aisle seat and enter and leave quietly.



Appendix to Course Outlines

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 the University of Western Ontario 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.

In the 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 to be seated 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: sit in an aisle seat and enter and leave quietly.

Please see the *Code of Student Conduct* at:

https://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 is 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.

Academic Accommodation for Medical/Non-Medical Grounds

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://www.sdc.uwo.ca/ssd/?requesting_acc

(a) <u>Medical Grounds</u> for assignments <u>worth 10% or more of final grade</u>: Go Directly to Academic Advising

University Senate policy, which can be found at

http://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:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform_15JUN.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 <u>less than 10%</u> 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 Instructor Directly

Where the grounds for seeking accommodation are not medical, the student should contact the instructor directly. Late penalties may apply at the discretion of the instructor. Apart from the exception noted below, academic advisors will not be involved in the process of accommodation for non-medical reasons.

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.

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, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

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 and 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.

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.

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.

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.

Policy on Special Needs

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://www.sdc.uwo.ca/ssd/?requesting_acc

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.

Class Cancellations

In the event of a cancellation of class, every effort will be made to post that information on the Huron website, https://huronuc.on.ca/about/accessibility ("Cancellations and Closures").

Mental Health @ Western

Students who are in emotional/mental distress should refer to Mental Health @ Western http://www.uwo.ca/uwocom/mentalhealth/ for a complete list of options about how to obtain help.

Academic Advising

For advice on course selections, degree requirements, and for assistance with requests for medical accommodation [see above], students should contact an Academic Advisor in Huron's Student Support Services (https://huronuc.ca/student-life-campus/student-services/academic-advising

Department Chairs and Program Directors and Coordinators are also able to answer questions about their individual programs. Their contact information can be found on the Huron website at: https://huronuc.ca/student-life-campus/art-social-science