

**PhD Microeconomic Theory II
ECO 7924**

**Professor Guidon Fenig
Winter, 2024**

COURSE OUTLINE

Class schedule: Monday, 14:30 – 17:20, FSS 4014

Office hours: Monday, 12:00 – 13:00, FSS 9057

INSTRUCTOR INFORMATION

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Communication Preferences: email

Call Me: Guidon

TA

Name: TBA

Email: TBA

OFFICIAL COURSE DESCRIPTION

Topics may include game theory, information economics, externalities and public goods.

INDIGENOUS AFFIRMATION

ANISHINÀBE

*Ni manàdjiyànànig Màmìwininì Anishinàbeg, ogog kà nàgadawàbandadjig iyo akì eko weshkad.
Ako nongom ega wikàd kì mìgiwewàdj.*

*Ni manàdjiyànànig kakina Anishinàbeg ondaje kaye ogog kakina eniyagizidjig enigokamigàg
Kanadàng eji ondàpinangig endàwàdjìn Odàwàng.*

*Ninìsidawinawànànig kenawendamòdjig kije kikenindamàwin; weshkinìgidjig kaye
kejeyàdizidjig.*

Nigijeweninmànànig ogog kà nìgànì sòngideyedjig; weshkad, nongom; kaye àyànikàdj.

[Listen to the audio file](#)

ENGLISH

We pay respect to the Algonquin people, who are the traditional guardians of this land. We acknowledge their longstanding relationship with this territory, which remains unceded.

We pay respect to all Indigenous people in this region, from all nations across Canada, who call Ottawa home.

We acknowledge the traditional knowledge keepers, both young and old.

And we honour their courageous leaders: past, present, and future.

INCLUSION

The University of Ottawa aims to be an equitable and inclusive institution, actively participating in ensuring the wellbeing of students, personnel and faculty members. The University is committed to eliminating obstacles to student inclusion in accordance with the [Ontario Human Rights Code](#). The *Code* provides that every person has the right to equal treatment with respect to goods, services, facilities, housing, contracts and employment as well as membership in trade or professional associations and unions without discrimination because of "Race, Ancestry, Place of origin, Colour, Ethnic origin, Citizenship, Creed, Sex, Sexual orientation, Gender identity, Gender expression, Age, Record of offence (in employment only), Receipt of public assistance, Marital status, Family status, Disability". The [Human Rights Office of the University of Ottawa](#) adds "although the Human Rights Code does not provide a definition of discrimination, the notion of discrimination covers unfair treatment on the basis of race, disability, sex, or any other personal characteristic. It can take many different forms, can target a single person or a group and can be part of a system."

If you have experienced discrimination or harassment, you can seek confidential assistance through the University Human Rights Office to discuss your situation and/or [to file a formal complaint](#).

The following uOttawa Campus based services are available to you and your fellow students:

- [uOttawa Counselling Service](#) including Individual Counselling provided by uOttawa Counsellor, Pierre Bercy who specializes in anti-black racism;
- University of Ottawa Students' Union (UOSU) [Resources for/from the Black Community](#), [Centre for Students with Disabilities](#), [Racialized and Indigenous Students Experience Centre](#), [Womxns Resource Centre](#) and [uOttawa Pride Center](#)

- Anti-racism student committee (Email: car.arc.uottawa@gmail.com)
- Mashkawaziwogamig: [Indigenous Resource Center](#)
- [University of Ottawa's Human Rights Office](#) including [policies on accessibility](#).

COURSE LEARNING OUTCOMES

To build upon basic concepts learned in the Introduction to Microeconomics course in order to develop a more profound understanding of the field.

TEACHING METHODS

This course will be delivered in a hybrid mode. This means that I will post recordings of the lectures on Brightspace. During class, I will review numerical examples related to the lectures and answer questions about the recordings. We will also run some experiments that complement the theory concepts analyzed during the classes.

SUGGESTED MATERIAL

Strategy: An Introduction to Game Theory (Third Edition), Joel Watson Norton, 2013

ASSESSMENT STRATEGY

Problem Sets

You will have to solve five problem sets through the course. Each will account for 6% of your final grade. These will be submitted via Crowdmark. The schedule of due dates for the problem sets are as follows.

Problem Set	Deadline
#1	January 24 at 23:59
#2	February 9 at 23:59
#3	March 15 at 23:59
#4	March 27 at 23:59
#5	April 9 at 23:59

Crowdmark

- Crowdmark is an online grading and analytics platform that helps educators evaluate students' work more effectively. The platform allows for easy distribution and collection of student work, offers tools for the assembly and management of grading teams, and provides an online workflow that streamlines grading and rich feedback delivery to students.
- All assignments are due at 23:59 on their respective due dates.
- In order to receive a graded, submissions must be uploaded to the correct questions in the proper orientation. Submissions must be double checked on a computer to ensure the orientation is valid and is legible.

- If you do not complete a problem set by the due date, you will receive a zero for it. The only exceptions to this policy will be due to illness and it will have to be justified. In the event of such a justified reason for missing the deadline: for problem sets, I will simply drop the missed assignment from your final grade and re-weight the rest of the course proportionally.
- If you have technical difficulties uploading your answers, you should send the pictures with your answers to gfenig@uottawa.ca before the deadline. Otherwise, you will be given a 0.

Grading the Problem Sets

Since there will be many problem sets, I will randomly select two problems from each for grading. You must submit a completed problem set to get full credit. If a set has n problems, one problem will be chosen with a probability of $\frac{1}{n}$ and the second with $\frac{1}{n-1}$. Half of your grade will be based on the completeness of your solutions, and the other half on the correctness of your solutions to the graded problems (25% each). For example, suppose there are seven problems on a problem set and that I have selected the first two problems to grade. If you submit complete solutions to four of the remaining five questions, your grade for the completeness part is $\frac{4}{5}$. Let's say you get 60% of the first two problems, correct. Then your grade for the problem set is $\frac{1}{2}(0.6) + \frac{1}{2}(0.8) = 70\%$.

Detailed solutions will be posted for all questions for your self-review, although feedback will only be provided on the graded problems.

Exams

There will be one midterm test, held during **scheduled** class time (February 12). The test is valued at 30%, and the final exam is worth 35% of your final grade. All evaluations are administered in person.

NOTE: There will be NO deferred midterm examinations. If you must miss the midterm for a legitimate reason (illness, bereavement), then the final exam's weight will be increased to 55% and the Problem Sets will be worth 45% (9% each).

Components of Final Mark

Evaluation format	Weight
Problem Sets	35% (7% each)
Midterm	30%
FINAL	35%

If you have to miss the final exam, you must fill out the appropriate form (with appropriate documentation).

To request a deferred final exam, you must submit a Service Request through your uoZone account. Please refer to Academic Regulation 9.5 regarding justification of absence from an examination: Academic Regulation 9.5. The date of the deferred final exam is May 10.

Mathematics

A strong foundation in mathematics is necessary for you to be successful in this class. This foundation is defined by our entry requirements to the PhD program and the material that is taught in ECO 7119. The entry requirement to the PhD program is a Master's degree in Economics. This means that, at a minimum, a student should have mastered the mathematics reviewed in Chapters 26 and 27 of "Microeconomic Analysis" by Hal R. Varian.

Attendance

Attendance for each in class session is mandatory.

POLICY ON THE EIN (INCOMPLETE)

In all economics courses, students who fail to complete work (either a single piece of work or a combination of work) worth a total of 25% or more of the final grade will receive a grade of EIN in the course. The EIN grade is equivalent to a failure mark (F). See Regulation A-3

(<https://www.uottawa.ca/about-us/policies-regulations/academic-regulations/a-3-grading-system>) for details. Please note that a denied request for a deferral may therefore lead to failing the course.

CURRICULUM

DETAILED SCHEDULE:

DATE	Topic	Chapters
Jan 8	Introduction: representing games, strategies	Watson 1-5
Jan 15	Static games: best responses, rationalizability	Watson 6-8
Jan 22	Nash Equilibrium and Applications	Watson 9-10
Jan 29	Static games: other equilibrium topics	Watson 11-12
Feb 5	Dynamic games: Extensive form, backwards induction, subgame perfection	Watson 14-15
Feb 12	Midterm	
Feb 19	No Class Reading Week	
Feb 26	NO CLASS	
Mar 4	Bargaining Games	Watson 18-19
Mar 11	Repeated Games	Watson 22-23
Mar 18	Information: incomplete information Bayesian Nash Equilibrium	Watson 24 and 26
Mar 25	Auctions	Watson 27
Apr 1	No Class	
Apr 8	Perfect Bayesian Equilibrium	Watson 28

Please Note: I reserve the right to change the order of the topics should the need arise. I may add additional readings if appropriate and may eliminate parts of the topics if time becomes too constraining.

TIME COMMITMENT

In order to succeed in a 3-credit course, alongside the standard 3 hours of in-class instruction, students should expect to spend a minimum of 6 hours per week outside of the classroom engaged in activities related to the course, e.g. homework, reading, studying, etc., and should expect a minimum time commitment of 9 hours per week per course (on average).

LANGUAGE EXPECTATIONS

This course is delivered in English, and in class interactions, including the online discussion boards, and feedback will also be managed in English. As part of your evaluation will be on your writing abilities, it is recommended to take the appropriate measures to avoid mistakes such as spelling, syntax, punctuation, inappropriate use of terms, etc. You may be penalized up to 15% for poorly written materials, to the professor's discretion.

MOBILE DEVICES

Unless explicitly requested, please refrain from using mobile devices during class. As in class time is quite limited, I would ask that you prioritize using this time to engage with class discussions and other content-related activities. Active participation and engagement with the content and your peers helps ensure full participation marks for your contributions this semester.

LATE ASSIGNMENTS

- All assignments are to be submitted by their due date and time. **Late submissions will be given a zero (0%) grade.**

MISSED EXAMS AND REQUESTS FOR DEFERRAL

As per Academic Regulation A-8, absence from any examination or test, or late submission of assignments must be reported by submitting the online Declaration of Absence from an Evaluation form within five (5) working days of the examination date or the assignment deadline. It is not required to attach a justification or medical certificate to the form for a first absence from an evaluation in a course. Students can request a maximum of one deferred evaluation per course under this policy, and this evaluation must take place as soon as possible, within six (6) months of the end of the term. Evaluation for graduate students must occur as soon as possible, within three (3) months of the end of the term.

In the case of a second absence, a medical certificate or justification in terms of **exceptional personal circumstances** is required with the submission of the online form, and the academic unit and the faculty concerned reserve the right to accept or reject the reasons presented. Reasons such as travel, work and misreading of examination schedules are not accepted.

In the case of a medical certificate, the certificate must include the student's name, the date of both the absence and the return to studies and the medical consultation date. The certificate does not require mention of the medical condition. Students should not participate in oral or written examinations during the period of disability indicated on the form.

Students who defer an exam will be required to write a deferred evaluation, except where the professor offers a re-weighting scheme. (If available, such a scheme is described in this syllabus).

Deferred final examinations will take place on **Friday, May 10, 2024**.

Students should reflect deeply before requesting a deferred evaluation, since they can only receive one deferral per course. Students who are struggling to keep up with their schedule may find it worthwhile to withdraw from the course and take it again at a later date. In Winter 2024, the deadline to withdraw from this course (without financial reimbursement) is March 22nd. For further information on withdrawing from the course, consult the link <https://www.uottawa.ca/course-enrolment/withdrawing-from-a-course>.

EXAM CONFLICTS

- Any conflict with a midterm exam schedule should be reported to the Professor at the beginning of the term. This request is especially applicable to the type 3 conflict (two in-class exams back-to-back) for students with special learning needs.
- Any conflict with a final exam schedule should be reported to the Faculty's undergraduate office as soon as the final examination schedule is released.

INTELLECTUAL PROPERTY RIGHTS OF THE COURSE CONTENT

If you would like clarification regarding the intellectual property right of course content, please visit the [Copyright Office webpage](#) or consult your professor.

INSITUTIONAL POLICIES AND ACADEMIC REGULATIONS

It is very important to know the institutional policies and academic regulations associated with your academic success. This information is available on the Faculty of Social Sciences website, on the [Student Hub webpage](#) under the “Institutional policies and academic regulations” tab.

ACADDEMIC FRAUD AND REGULATIONS

If you would like clarification regarding academic integrity and misconduct, please consult [Academic Regulation A-4](#) or consult your professor.

REGULATIONS ON BILINGUALISM AT THE UNIVERSITY OF OTTAWA

Per [Academic Regulation A-1](#) : « Except in programs and courses for which language is a requirement, all students have the right to produce their written work and to answer examination questions in the official language of their choice, regardless of the course’s language of instruction.

USEFUL STUDENT SUPPORT LINKS

[Student Health and Wellness Centre](#)
[Academic support](#)