

University of Waterloo
Department of Economics
Economics 672 / 484
Financial Economics
Winter 2023
MW 1-2:20PM, PAS 2086

Instructor Information

Instructor: Keisuke Teeple
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Course Description

This course is about financial economics; that is, the study of financial markets from an economic perspective. We will analyze financial questions using the language of economics (concepts like adverse selection and externalities). It is a theoretical, not data, course which means we will make use of the tools of calculus and probability, not econometrics. First we will consider the benchmark financial market equilibrium model, where traders optimize and asset prices clear markets. Then we will consider nonstandard models of speculation, where the motive for trade comes from informational advantage or market power.

There are two things you need to do to be successful in this course: come to lecture and do your homework (well, these are necessary but not sufficient conditions). Unlike other courses you may be used to, there will be very little reading. Why? I will cover some advanced topics directly from a combination of books and papers, which I list below but do not expect you to read. Lecture notes should be sufficient for full understanding of the course material. Try to expose yourself to the course material in as many ways as you can; this includes asking questions in lecture, emailing questions, coming to office hours, and forming study groups.

Readings

Lecture notes will be posted several days after each class. The following readings are optional:

- G. Bonanno. Uncertainty, Risk, and Information. Independently Published, 2019.
- M. Magill and M. Quinzii. Theory of Incomplete Markets. MIT Press, 1996.
- M. Harrison and D. Kreps. Speculative Investor Behavior in a Stock Market with Heterogeneous Expectations. Quarterly Journal of Economics, 92(2): 323-336, 1978.
- S. Grossman. On the Efficiency of Competitive Stock Markets where Trades have Diverse Information. Journal of Finance, 31(2): 573-585, 1976.

- S. Morris and H. Shin. Social Value of Public Information. American Economic Review, 92(5): 1521-1534, 2002.
- A. Banerjee. A Simple Model of Herd Behavior. Quarterly Journal of Economics, 107(3): 797-817, 1992.
- M. Brunnermeier and L. Pedersen. Predatory Trading. Journal of Finance, 60(4): 1825-1863, 2005.

Course Requirements and Assessment

Assessment	Date of Evaluation	Weighting
Nine homework assignments	Due in lecture Wednesdays	20%
Participation in in-class poll questions	Every lecture	10%
Midterm 1	February 8 in lecture	20%
Midterm 2	March 15 in lecture	20%
Comprehensive final	TBD	30%
Total		100%

- Homework will be graded on effort only (work in groups OK, submit a copy for each individual).
- Receive full credit for in-class polls with 75%+ answered (effort only).
- Polls consist of 1-2 survey links given each class, and aggregated responses displayed/discussed.

Course Outline

I have picked out what I think are the “main pillars” of financial economics and listed them in the course outline below. There will be a lot of problem solving, as these are theoretical/ mathematical models of finance. Any math beyond calculus will be reviewed in class; expect a rigorous treatment of these topics below.

Choice under Uncertainty (finish this before Midterm 1)

- Expected utility
- Precautionary savings
- Stochastic dominance
- Portfolio theory
- Insurance markets

Asset pricing (finish this before Midterm 2)

- Arrow securities
- Fundamental theorem of asset pricing
- Capital asset pricing model
- Bonds
- Risk premium

Speculation

- Heterogeneous expectations
- No trade
- Beauty contests
- Herd behavior
- Predatory trading

Late Work

Assume I will not accept it. Email me well before the exam (not previous day) for illness or special accommodations.

Information on Plagiarism Detection

I don't see this being an issue.

Electronic Device Policy

No problem, just don't bother the rest of the class.

Attendance Policy

You should show up to get your in-class poll credit.

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility. See the [Office of Academic Integrity webpage](#) for more information.

Discipline

A student is expected to know what constitutes academic integrity to avoid committing an academic offence and to take responsibility for his/her actions. Check [the Office of Academic Integrity](#) for more information. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the undergraduate associate dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties check [Guidelines for the Assessment of Penalties](#).

Grievance

A student who believes that a decision affecting some aspect of their university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#), Section 4. When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

Appeals

A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 - Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72 - Student Appeals](#).

Note for Students with Disabilities

[AccessAbility Services](#), located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

Turnitin.com

Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit alternate assignment.