UNIVERSITY OF THE FRASER VALLEY

ORIGINAL COURSE IMPLEMENTATION DATE: September 2012
REVISED COURSE IMPLEMENTATION DATE: September 2026
COURSE TO BE REVIEWED (six years after UEC approval)**:** February 2032
Course outline form version: 26/01/2024

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: ECON 207	**Number of Credits:** 3 Course credit policy (105)
Course Full Title: Introduction to Game Theory and Strategic Thinking **Course Short Title:** Game Theory & Strateg Thinking	
Faculty: Faculty of Social Sciences	**Department (or program if no department):** Economics

Calendar Description:

Considers the methodology and analytical tools used to study decision making in situations characterized by strategic interaction., Students participate in in-class teaching games to help translate theory into practice.

Prerequisites (or NONE):	ECON 100.
Corequisites (if applicable, or NONE):	None.
Pre/corequisites (if applicable, or NONE):	None.

Antirequisite Courses *(Cannot be taken for additional credit.)*

Former course code/number:

Cross-listed with:

Equivalent course(s):

(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)

Typical Structure of Instructional Hours

Lecture/seminar	45
Total hours	**45**

Scheduled Laboratory Hours

Labs to be scheduled independent of lecture hours: ☒ No ☐ Yes

Course Details

Special Topics course: **No**
(If yes, the course will be offered under different letter designations representing different topics.)

Directed Study course: **No**
(See policy 207 for more information.)

Grading System: **Letter grades**

Delivery Mode: **May be offered in multiple delivery modes**

Expected frequency: **Annually**

Maximum enrolment (for information only)**: 28**

Prior Learning Assessment and Recognition (PLAR)

PLAR is available for this course.

Transfer Credit *(See bctransferguide.ca.)*

Transfer credit already exists: **Yes**

Submit outline for (re)articulation: **No**
(If yes, fill in transfer credit form.)

Department approval	**Date of meeting:**	March 14, 2025
Faculty Council approval	**Date of meeting:**	June 6, 2025
Undergraduate Education Committee (UEC) approval	**Date of meeting:**	February 27, 2026

Learning Outcomes *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Classify games in terms of their key characteristics and constraints.
2. Illustrate simultaneous move games using the normal form representation.
3. Illustrate sequential move games using the extensive form representation.
4. Use various equilibria concepts, such as Nash equilibrium and sub-game perfect Nash equilibrium, to solve simultaneous and sequential move games in pure strategies.
5. Use the concept of mixed-strategy Nash equilibria to solve games of complete information.
6. Detail how trigger-strategies can support superior outcomes in repeated, simultaneous move games.
7. Solve games of incomplete information using appropriate economic models.
8. Contrast equilibrium outcomes to values of reciprocity, redistribution, sustainability, and in the context of social, cultural, and environmental concerns.

Recommended Evaluation Methods and Weighting *(Evaluation should align to learning outcomes.)*

Final exam:	30%	Assignments:	20%		%
Quizzes/tests:	30%	Project:	20%		%

Details:

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.)*

Lecture/seminar format with in-class participation in teaching games, problem-solving and discussion.

Texts and Resource Materials *(Include online resources and Indigenous knowledge sources. Open Educational Resources (OER) should be included whenever possible. If more space is required, use the Supplemental Texts and Resource Materials form.)*

	Type	Author or description	Title and publication/access details	Year
1.	Textbook	Osborne	An Introduction to Game Theory. Oxford	2009
2.	Textbook	Gibbons	Game Theory for Applied Economists. Princeton University Press	1992
3.	Textbook	Dixit, Skeath, Reily	Games of Strategy, 6th Edition. Norton	2025
4.	Textbook	Tadelis	Game Theory: An Introduction. Princeton University Press	2013
5.	Textbook	Ferreira	Game Theory: An Applied Introduction	2020

Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

Course Content and Topics

- What is game theory?
- Basic theory: normal-form representation of games
- Dominant strategies and dominant strategy equilibria
- Iterated elimination of strictly/weakly dominated strategies
- Motivation and definition of Nash equilibrium
- Mixed strategies
- Existence of Nash equilibrium
- Infinitely repeated simultaneous move games and trigger strategies
- Basic theory: extensive-form representation of sequential games
- Backward induction and sub-game perfect Nash equilibrium
- Sequential games of complete but imperfect information
- Static games of incomplete information: normal form representation of Bayesian games
- Definition of Bayesian equilibrium