University of Victoria | Economics

ECON 400 A01
Advanced Microeconomic theory
Course Outline – Fall 2026 (CRN 11148)

UVic Land Acknowledgement

We acknowledge and respect the Lək̓ʷəŋən (Songhees and Esquimalt) Peoples on whose territory the university stands, and the Lək̓ʷəŋən and W̱SÁNEĆ Peoples whose historical relationships with the land continue to this day.

Instructor: Daniel Rondeau
Office: BEC 342
E-Mail: rondeau@uvic.ca
Lectures: MT 10:30-11-20 DSB C126
Office Hours: Wednesdays 1:30 – 3:00 or by appointment

Course Content

This course presents an advanced treatment of consumer theory, from its fundamental axioms all the way through its foundations for cost benefit analysis; choice under uncertainty and, game theory. The content of lectures will reflect the need to develop theoretical methods and a formalization (modeling) of individual preferences and choices. This will allow us to restate the main results of consumer theory (previously seen in lower level courses), pointing out their formal theoretical origins and empirical implications.

The primary objective of the course is to expose students to the process of formal economic theory development, principally by working through the complete development of consumer demand theory, from basic axioms on preferences to the statement of empirically testable empirical predictions. We will explore the origins of concepts introduced in lower level microeconomics courses and pursue a deeper understanding of their implications for consumer behavior and demand systems. Although the main topic of the course is consumer demand and behavior, it is important to keep in mind that our principal objective is primarily methodological, proceeding through the formal process of developing a consistent economic theory. As such, the course is arguably more about the methodological *process* of developing and using economic theory than the models studied in the course, although we will constantly strive to understand the implications and limitations of the theory, further deepening our understanding of previously covered material.

It is important to emphasize that this is a course on theory, and that the level of discussion will be advanced (hence the name of the course!). Students should be prepared for an exhaustive mathematical treatment and analysis. Pre-requisites are essential and are not normally waived.

Lecture Topics

1. Mathematical preliminaries: Sets, Functions and Optimization
   - G&R Mathematical Appendices
2. Consumer Theory (G&R Ch. 1,2,3, and possibly 4)
   - 2.1 Basic Axioms of Preferences and Choices
   - 2.2 Preferences and Existence of Utility Functions
   - 2.3 The Consumer's Utility Maximization Problem
   - 2.4 Indirect Utility and Marshallian Demand
   - 2.5 The Consumer's Expenditure Minimization Problem
   - 2.6 Expenditure Functions and Hicksian Demand
   - 2.7 Duality and Equilibrium Equivalence
   - 2.8 Consumer Surplus Measures - the Foundation of Benefit Cost Analysis
   - 2.9 Slutsky Matrix and Theoretical Predictions
3. Choice under uncertainty (G&R Ch. 17 and 19)
   - 3.1 Axioms of Choice under Uncertainty
   - 3.2 Expected Utility Functions
   - 3.3 Risk Preferences
   - 3.4 Risk and Insurance
4. Game theory and mechanism design (as time allows)

Learning Outcomes

At the end of the course, successful students will be able to

- Derive the entire classical consumer theory problem
- Identify the role that each axiom of consumer theory plays in the resulting properties of consumer choices and resulting demand system
- Critique the theory
- State how the theory can be empirically tested
- Explain the formal links between consumer theory and the foundation of Benefit Cost Analysis
- Perform basic calculations of welfare changes resulting from policies in all four Hicksian dimensions
- State the axioms of choice under uncertainty
- Identify the limitations of expected utility theory
- Compute optimal choices under uncertainty under a variety of scenarios (insurance, investment, etc)

Course prerequisites

ECON 313; ECON 350. Pre-requisites are not normally waved.

Notes, Textbook and Brightspace

The course Brightspace site will be populated with extensive lecture notes that will form the core of the course. In the past, I have not asked students to purchase a standard text, mainly because this course covers a small portion of the material typically presented in a book at this level and it seemed wasteful to ask students to purchase an entire textbook. However, my preferred texts for this course are:

Osborne MJ and A. Rubenstein, 2020. Models in Microeconomic Theory. OpenBook Publisher. Toronto. It is available as an open source book at https://books.openbookpublishers.com/10.11647/obp.0211.pdf

Hugh Gravelle and Ray Rees. Microeconomics, Third Edition. Pearson Education, Harlow, England, 2004.

Gravelle and Rees is one of the more accessible advanced micro textbooks. It will also be a long lasting reference book if you go on to do graduate work in economics. It is recommended that you obtain a copy (note, it is easy to find but it is not open source, so I can't post a link here!).

This material is also covered in all advanced microeconomics texts and students will find it useful to consult any of the references below for a different presentation of the course material.

- Jehle, G.A. and P. Reny, Advanced Microeconomic Theory - 2nd Edition. (2000)
- Silverberg, E., the Structure of Economics: a Mathematical Analysis. (1990)
- Varian, H.R., Microeconomic Analysis, 3rd edition. (1992)
- Kreps, D., Microeconomics (1990)

Brightspace

The lecture notes, assignments, practice exams and other course material will all be posted in *Brightspace. S*tudents are expected to be fully functional with the system.

All announcements will be posted in *Brightspace*. Students are advised to check it frequently.

Grading

- **4 or 5 homework assignments for a total of 20% (see AI statement below)**
- **ONE in-class midterm exam Thursday October 22 30%**
- **Final Exam (Date to be set by registrar) 50%**

Mandatory/Essential Course Components

All exams are essential course requirements, meaning, they must be attempted in order to pass the course. Note that essential course requirements are deferrable, the final exam is considered essential and thus deferrable by definition.

Assignments are not considered essential course components. This means that failure to complete an assignment will only result in a grade of zero on the assignment and not trigger a N (incomplete) grade. Assignments are not deferrable and must therefore be completed by the required date.

Grading Scale

A+	A	A-	B+	B	B-	C+	C	D	F or N
90-100	85-89	80-84	77-79	73-76	70-72	65-69	60-64	50-59	0-49

Students should review the University's more detailed summary of grading.

Missing Assessments

Should students encounter a situation where they miss an exam or cannot submit an assignment at its due date, they may qualify for an academic concession. Students are required to indicate the specific grounds on which they are requesting an academic concession and to provide a justification outlining the impact of the circumstances on their ability to complete course requirements. For in-course extensions, please fill in the form and follow the instructions on the form *[or specify alternative means of communicating a request such as filling in a request on Brightspace]*. I will not respond to informal requests of academic concessions. *[Note any automatic academic concessions such as putting the weight of a missed midterm for a legitimate reason on the final, dropping the two worst grades of quizzes etc.]* In case you miss the final exam, fill in a request for a deferral.

Students are advised not to make work or travel plans until after the examination timetable has been finalized. Students who wish to finalize their travel plans at an earlier date should book flights that depart after the end of the examination period. Students do not qualify for an academic concession if travel plans conflict with the examination.

Waitlist Policies

- Instructors have no discretion to admit waitlisted students or raise the cap on the course.
- Students on the waitlist should discuss with the instructor how to ensure they are not behind with coursework in the event they are admitted.
- Registered students who do not participate as specified in this outline during the first 7 calendar days from the start of the course may be dropped from the course.
- Registered students who decide not to take the course are responsible for dropping the course and are urged to do so promptly out of courtesy toward waitlisted students.
- Waitlist offers cease after the last date for adding courses irrespective of published waitlists.

Academic Integrity

Academic integrity is fundamental to all scholarly work. At the University of Victoria (UVic), students are expected to comply with the university's academic regulations and must not engage in acts of dishonesty, falsification, misrepresentation, or deception in any academic work. Violations of the University's academic integrity policy may result in academic or disciplinary consequences.

Use of AI

I personally consider that AI is becoming an increasingly powerful tool with potentially great upsides. In the context of learning, however, it can be greatly detrimental. Learning is the complex process of building new connections in the brain. It requires exercise and repetition that test the strength of neural networks. Simply skimming a feed and copying and pasting from a web page or AI assistant does very little of that.

The largest and most striking evidence to date comes from a 30-month panel study of over 26,000 secondary students in central China, by Strömberg et al. AI users finished homework faster and scored 18% higher on homework, but closed-book monthly exam scores fell 20%, and scores on high-stakes entrance exams dropped 18–24%. The decline was sharpest in social sciences (27%) and STEM (22%). Notably, students who used AI but still spent as much time on homework as non-users didn't show the same exam losses — the damage tracked with using AI as a shortcut, not with using it per se. See Stromberg, David and Lei, Victor and Wu, Yanhui, The Generative AI Learning Penalty: Evidence from Chinese Secondary Education (June 02, 2026). Available at http://dx.doi.org/10.2139/ssrn.6868618

For this reason, suspected use of AI in producing your assignments, can trigger an oral examination to test your comprehension. Where an oral exam is conducted, your assignment grade will consist of 50% on your written answers and 50% on your oral answers.

Appeals

Depending on the nature of your concern, the order in which you should normally try to resolve the matter is:

1. Me, the course instructor
2. the Associate Chair: econassoc@uvic.ca
3. the Associate Dean of Academic Advising
4. the Senate.

If you're seeking a formal review of an assigned grade, you should also consult the regulations in the academic calendar regarding review of an assigned grade.
[Include your process of dealing with grade inquires on assignments and exams. E.g, "I only respond to grading inquiries in writing. You must file your question within 1 week of issuance of your grade and the release of the answer key. Do not approach me after class to discuss grading concerns."]

Student Code of Conduct

The Humanities, Science, and Social Sciences Faculties have adopted this Student code of conduct. Please, review.

University Policies

This course is executed in a manner consistent with these University statements and policies.

a. University Calendar - Section "Information for all students"
b. Creating a respectful, inclusive and productive learning environment
c. Academic Integrity
d. Academic Concession Regulations, Academic Concession and Accommodation, Academic Accommodation – Policy AC1205
e. Accommodation of Religious Observance
f. Student Conduct
g. Accessibility
h. Diversity / EDI
i. Equity statement
j. Sexualized Violence Prevention and Response
k. Discrimination and Harassment Policy

Resources for Students

a. Student wellness
b. Centre for Accessible Learning
c. UVic Learn. UVic Learn is the primary learning resource for students that offers many learning workshops and resources to help students with academics and learning strategies.
d. Library resources
e. Academic Skills Centre (ASC)
f. Learning Assistance Program (LAP)
g. Academic Advising
h. Economics Undergraduate Advising: ecadvice@uvic.ca
i. Student Awards and Financial Aid
j. International Student Advising
k. Indigenous student services (ISS)
l. Student groups and resources including UVic Ombudsperson

Student Experience of Learning (SEL) Survey

I value your feedback on this course. Towards the end of term, you will have the opportunity to complete a confidential SEL survey regarding your learning experience. The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future.

E-mail Correspondence

Emails should be limited to critical matters, such as inability to attend class, an exam, or prolonged illness, and should include the course name and number in the subject line. Questions on course material are most easily answered during office hours or in class. The standard format for writing a letter must be used. This means it should begin with a salutation (e.g. Dear….), include full sentences and it must conclude with a signature that includes your **full name and V#** .Text message lingo should not be used.

Electronic Devices

No electronic device other than a basic non programmable calculator can be used during examinations.