CARLETON UNIVERSITY
Department of Economics

ECON 4020 A
Advanced Microeconomic Theory

Instructor: Professor K. G. Armstrong   2017 Fall

E-mail:	cuLearn	Lectures:	Mondays, 11:35–14:25, in 2202 Canal
Telephone:	613-520-2600 x 8696	Tutorials:	Wednesdays, 13:05–14:25, in 404 Southam
Office:	D-899 Loeb	Office Hours:	Tuesdays, 15:15–16:45

Prerequisites

As stated in the 2017–18 Undergraduate Calendar, the prerequisites for this course are "ECON 2020 (or ECON 2009) and ECON 2030 each with a grade of C+ or higher; ECON 3001 (or MATH 2000 or MATH 2004) with a grade of C+ or higher; and ECON 2220 (or equivalent, or STAT 2605 or STAT 3502), which may be taken concurrently with ECON 4020." Please note that *all* of these prerequisites *must* be satisfied in order to remain registered in the course. Students who believe they have taken a similar background course or courses from another university must provide appropriate documentation to the Department of Economics Undergraduate Administrator, Amanda Wright.

Objectives

The aim of the course is to provide a rigorous analysis of the behaviour of economic agents in production, consumption, and general equilibrium. Elementary mathematical tools will be employed in the exposition of these topics.

Tutorials

The weekly tutorials will begin on September 6 with a presentation of the course preliminaries by the instructor. All subsequent tutorials will be led by a teaching assistant assigned by the Department. The main purpose of these tutorials is to give students guidance and practice in working through particular problems and applications of advanced microeconomic theory covered in the lectures and in the textbook. The teaching assistant may also spend some time answering students' questions about course material.

Required Text

Varian, Hal R., *Microeconomic Analysis*, 3rd Edition, New York: Norton, 1992 (ISBN-10: 0-393-95735-7).

Evaluation

Each student's grade in the course will be calculated as a weighted average of scores on eleven, in-class, formative assessments (one per lecture at 5% each), a mid-term examination (15%), and an in-class final examination (30%).

No course grades are final until approved by the Faculty Dean. Note also that course grades may be scaled upwards or downwards in a rank-preserving manner to better fit the relevant distributional norm.

Students will be expected come to each lecture having read *thoroughly* the relevant chapter(s) in the required text as stated in the "Course Schedule and Reading List" below and/or communicated in advance via cuLearn. Chapters 1–6 (Module I), 7–10 (Module II), and 13 and 17–18 (Module III) of Varian (1992) will be covered in sequence (except for Ch. 10, which will be covered in part between Chs. 7 and 8) over the first eight and last three lectures of the (twelve-lecture) term.

Formative assessments of student learning during a given lecture will be based on discussions of pertinent multiple-choice questions and/or worked problems. Students who can document a compelling reason for missing one of the first or second four or last three of these assessments will be excused and a third or half the associated weight will be added to that of each of the other three or two assessments in the same module (so that it becomes 5% + 5% / 3 = 6⅔ % or 5% + 5% / 2 = 7½ %). Students *must* inform the instructor of such an absence in advance, if possible.

The mid-term examination will take place for 75 minutes during the class on Wednesday, October 4. Students who can document a compelling reason for missing this examination will be excused and the associated weight will be added to that of the final examination (so that it becomes 30% + 15% = 45%). Students *must* inform the instructor of such an absence in advance, if possible.

The final examination will take place for 150 minutes during the class on Monday, November 20. It will consist of a number of multi-part problems similar to those discussed in class earlier in the term.

Please be aware that plagiarism is serious offence at Carleton and should be recognized and avoided.

Course Schedule and Reading List

Sep. 6: Preliminaries

Sep. 11: Technology (Varian Ch. 1)
Sep. 18: Profit Maximization and the Profit Function (Varian Chs. 2–3)
Sep. 25: Cost Minimization and the Cost Function (Varian Chs. 4–5)
Oct. 2: Duality (Varian Ch. 6)
Oct. 4: Mid-Term Examination

Oct. 11: Graded M-T Exam returned and taken up by T.A.

Oct. 16: Consumer Preferences and Optimization (Varian Ch. 7 excluding §3 to end)

Oct. 30: Utility Maximization and Consumers' Surplus (Varian Ch. 7 from §3* to end and Ch. 10 excl. §6–§7)
Nov. 6: Choice (Varian Ch. 8 excluding §5 and §8–§10)
Nov. 13: Demand (Varian Ch. 9 and §6 of Ch. 10)
Nov. 20: Final Examination

Nov. 27: Competitive Markets (Varian Ch. 13)
Dec. 4: General Equilibrium and Exchange (Varian Ch. 17)
Dec. 8: General Equilibrium and Production (Varian Ch. 18)

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*   Read also: Darrough, Masako N., and Clive Southey, "Duality in Consumer Theory Made Simple: The Revealing of Roy's Identity," *Canadian Journal of Economics*, Vol. 10, No. 2 (May 1977), pp. 307–317.