

**APEC 8002: Microeconomic Analysis of Production & Choice Under Uncertainty
Fall 2020**

Instructor:	Terrance Hurley	Hours:	Tuesday 10:00–11:00 am
Office:	ZOOM		Thursday 10:00–11:00 am
Phone:	612-625-1238		By Appointment
E-Mail:	tmh@umn.edu		
Teaching Assistant:	Monique Davis	Hours:	Monday 1:00–2:00 pm
Office:	ZOOM		Wednesday 1:00–2:00 pm
E-Mail:	davi3879@umn.edu		
Lecture:	Tuesday/Thursday	Recitation:	Thursday
Time:	3:00–4:15 pm	Time:	1:30–2:45
Where:	McNeal Hall 144	Where:	Ruttan Hall 143

Description: Applied Economics (APEC) 8002 is the second of four courses in the APEC 8001-2-3-4 sequence that is designed to provide first year Ph.D. students in Applied Economics, Carlson School of Management, Health Policy & Management and other programs with a mathematical treatment of fundamental microeconomic concepts that are used extensively in applied research. The focus of this course will be production without and with uncertainty, and competitive and monopoly markets.

Recommended Texts: This course will be based on the instructor’s notes posted on its Canvas site (<https://canvas.umn.edu/>). These notes and many exercises borrow extensively from

- Chambers, *Applied Production Analysis: A dual Approach*, Cambridge University Press, 1994.
- Chambers & Quiggin (CQ), *Uncertainty, Production, Choice, and Agency: The State-Contingent Approach*, Cambridge University Press, 2000.
- Cornes, *Duality and Modern Economics*, Cambridge University Press, 1992.
- Fare & Primont, *Multi-Output Production and Duality: Theory and Applications*, Kluwer Academic Publishers, 1995.
- MasColell, Winston, & Green (MWG), *Microeconomic Theory*, Oxford University Press, 1995.
- Varian, *Microeconomic Analysis (3rd edition)*, Norton, 1992.

These books can be found on reserve in Waite Library. While I suspect you will find the course notes indispensable for successfully completing the assigned exercises and exams, you are encouraged to read the suggested material from these other resources to expand your perspective and further develop your understanding of the theory.

Prerequisites: The economics and mathematical background assumed for students enrolling in this class includes intermediate or M.S. level microeconomic theory (e.g., ECON 3101 or APEC 5151); APEC 8001; linear algebra (e.g., MATH 2243); and multivariate calculus (e.g., MATH 2263).

Assignments: There will be problems assigned from each course module's exercises most Thursdays. The due date for the solutions to these assigned problems will be the following Thursday. Solutions to the assigned exercises will be posted on Canvas after the assigned problems are due. Assignments turned in late, but before solutions are posted will receive $\frac{3}{4}$ credit. Assignments turned in after the solutions are posted will receive $\frac{1}{2}$ credit. You are encouraged to work together, but are required to submit your own solutions to the assigned exercises.

Exam: There will be two exams:

Tuesday, November 24, 2020 from 3:00 – 4:15 pm covering Modules 1 & 2

Tuesday, December 22, 2020 from 8:00 – 10:00 am covering Modules 3 & 4

Grades: Individual grades A – F will be assigned based on assignments (40%) and exams (30% each). Students taking the course on an S-N grade basis must achieve at least a C- to earn an S. No incompletes will be offered. No opportunities for extra credit will be offered.

Topics:

Module 1: Production (Readings MWG 5.A-B; Varian 1; Chambers 1; Cornes 5.1, 5.8)

Module 2: Cost, Revenue, and Profit (MWG 5.C-D; Varian 2-6; Chambers 2-4; Cornes 5.2, 5.3, 5.6)

Module 3: Aggregate Supply, and Competitive and Monopoly Markets (MWG 10.A, C, F, G; Varian 13 & 14)

Module 4: Production under Uncertainty (CQ 1 - 5; Review: MWG 6; Varian 11)

Recommended Policy Statements for Syllabi

http://policy.umn.edu/Policies/Education/Education/SYLLABUSREQUIREMENTS_APPA.html