### CAS EC 501 Microeconomic Theory Syllabus Spring 2023

#### Course description

This is a Masters level course for students with prior background in economics and mathematics. The objective of the course is to provide students with a rigorous introduction to the basic concepts and techniques used in microeconomic theory.

### Instructor

Bjorn Persson bpersson@bu.edu Room 416B 270 Bay state Road Office hours: M 2.00 - 3.30 pm and R 10.00 - 11.30 am

### **Teaching fellow**

Xinyuan Chen xyc@bu.edu Room B17 264 Bay State Road Office hours: TW 3.30 - 5.00 pm

### Blackboard website

Lecture slides and assignments will be uploaded to the course website.

### Text

Walter Nicholson and Christopher M. Snyder: *Microeconomic Theory: Basic Principles and Extensions*. Each student should have access to a copy of the textbook. Copies have been ordered by the BU bookstore.

#### Prerequisites

Students are expected to be familiar with multivariate calculus and constrained optimization.

#### Academic conduct

It is a student's responsibility to know and understand the provisions of the CAS Academic Conduct Code. Cases of suspected academic misconduct will be referred to the Dean's Office.

# Classroom conduct and participation

Students are expected to attend all lectures. Each lecture will build on the knowledge acquired in the previous one and, if you miss a class, you are responsible for getting the lecture notes from your fellow students.

#### Examination

There will be a set of home assignments, one midterm, and one final examination. Assignments and their due dates will be provided on the course web site. Students are expected to work on the homework assignments independently. Please turn them in on time - no late homeworks will be accepted.

# Grading weights

Assignments: 20% Midterm: 30% Final Exam: 50%

### Exam dates

Midterm: 3/1 Final: TBA

### Make-up exams

No make-up exams will be given unless acceptable reasons can be provided as defined by the university.

# Course outline

Below is a *preliminary* list of topics. Some deviations from the actual schedule may be necessary as the class progresses. Students are responsible for attending classes and learning of any changes in the schedule. All chapters below refer to the textbook by Nicholson and Snyder.

# I. Consumer choice

Preferences Utility Demand Income and substitution effects *Readings: Ch* 3,4,5,6, 17

# **II.** Producer choice

Technology Profit maximization Cost minimization Firm supply *Readings: Ch 9,10,11* 

# III. Competitive markets

Partial equilibrium Pareto efficiency Welfare analysis General equilibrium Exchange and production economies *Readings: Ch 12,13* 

# IV. Uncertainty and information

Expected utility Risk aversion Insurance *Readings: Ch 7* 

## V. Market power

Game theory Monopoly Oligopoly Monopolistic competition *Readings: Ch* 8,14,15

# VI. Asymmetric information

Adverse selection Moral hazard *Readings: Ch 18* 

# VII. Externalities

Consumption/production externalities Coase theorem Public goods Vickrey-Clarke-Groves mechanism *Readings: Ch 19*