14.100x: Microeconomics

Intructors:

• Professor Jonathan Gruber, Ford Professor of Economics (MIT)

Course Descriptions:

In this course, we'll introduce you to microeconomic theory, together with some empirical results and policy implications. You'll analyze mathematical models that describe the real-world behavior of consumers and firms, and you'll see how prices make the world go 'round. Topics include: consumer theory, supply and demand, market equilibrium, producer theory, monopoly, oligopoly, capital markets, welfare economics, public goods, and externalities.

If you are interested in getting an overview of the content and exercises covered in this course, or eager to find additional resources please check out our course preview. A score of 60% or above in the course previews indicates that you are ready to take the course, while a score below 60% indicates that you should further review the concepts covered before beginning the course.

This Course and the MicroMasters® Program:

This is a core course of the MITx MicroMasters Program in Data, Economics, and Design of Policy (DEDP). The program consists of two tracks, eight online courses and in-person proctored exams. Learners who pass the three core classes and two elective courses can earn their MicroMasters credential. The program is co-designed by and run by MIT's Department of Economics and the Abdul Latif Jameel Poverty Action Lab (J-PAL), a global leader in conducting randomized evaluations to test and improve the effectiveness of programs aimed at reducing poverty. The MicroMasters program is intended

for learners who are interested in building a full set of tools and skills required for data analysis in the social sciences, understanding the problems facing the world's poor, and learning how to design and evaluate social policies that strive to solve them. You can learn more about this program today on our website – we hope that many of you will decide to join us!

Assignments and Grading Scheme:

For most weeks during the course, there will be a homework assignment that covers the main topics in that unit. In addition, there will be a proctored exam at the end of the course. Please see the online calendar for further information.

Grades of the course are calculated as follows:

• Problem Sets: 10%

• Lecture Exercises: 8%

• Midterms: 6%

• Comprehensive Review: 6%

• Proctored Exam: 70%

Lectures and Time Commitment:

The material for each topic will be posted weekly, and you should keep pace with the rest of the class. There will be about two lectures per week. You will have access to videos of the lecture presented in short segments (8-10 minutes on average), followed by finger exercises. You will also have access to the lecture notes and presentation slides.

The minimum commitment will be approximately 12 hours per week for watching the lectures, doing the readings, and completing the assignments.

Honor Code Pledge:

By enrolling in a MITx Online course or program, you agree that you will:

- Complete all tests and assignments on my own, unless collaboration on an assignment is explicitly permitted.
- Maintain only one user account and not let anyone else use my username and/or password.
- Not engage in any activity that would dishonestly improve my results, or improve or hurt the results of others.
- Not post online or share answers to problems that are being used to assess learner performance.

We will strictly enforce the honor code pledge. If you are found in violation of the Terms of Service or Honor Code, you may be subject to one or more of the following actions:

- Receiving a zero or no credit for an assignment;
- Having any certificate earned in the course or program withheld or revoked;
- Being unenrolled from a course or program; or
- Termination of your use of the MITx Online Site.
- Additional actions may be taken at the sole discretion of MIT.

No refunds will be issued in the case of any corrective action for such violations.

Honor Code violations will be determined at the sole discretion of MIT. You will be notified if a determination has been made that you have violated this Honor Code and you will be informed of the corresponding action to be taken as a result of the violation.

Course Syllabus and Reading Assignments:

There is no required textbook. If you would like to use a textbook, the course follows Microeconomics, by Jeffrey M. Perloff, Pearson, 2015. (7th edition)

Week One: Introduction & Supply and Demand

- Introductions to microeconomics
- Applying supply and demand
- Shapes of supply/demand curves

Week Two: Consumer Choice

- Preferences and utility functions
- Budget constraints and constrained choice

Week Three: Applying Consumer Theory

- Demand curves and income and substitution effects
- Labor supply

Week Four: Firms and Production; Costs

- Production costs
- Costs

Week Five: Competitive Firms and Markets

• Competition (Parts I, II & III)

Week Six: Applying the Competitive Model; Monopoly

- Welfare economics
- Monopoly (Parts I & II)

Week Seven: Oligopoly and Monopolistic Competition

• Oligopoly (Parts I & II)

Week Eight: International Trade; Uncertainty

- International trade
- Uncertainty

Week Nine: Capital Markets

• Capital supply and capital markets (Parts I & II)

Week Ten: Equity

- Equity and efficiency
- Government and redistribution policy

Week Eleven: Behavioral Economics; Health Economics

- Behavioral economics
- Health economics

*Week Eleven: Comprehensive Review