**中南财经政法大学课程教学大纲**

**Course Syllabus of**

**Zhongnan University of Economics and Law**

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| **Course Title: Advanced Microeconomics** | | | | |
| **Course Code** | **51032001** | | **Semester** | **2021-2022学年第一学期** |
| **Teaching Hours** | **32** | | **Credits** | **2** |
| **Prerequisites** | **Principle of Microeconomics** | | | |
| **Instructor Information** | | | | |
| **Name** | **Dezhuang Hu** | | **Email** | **[dezhuanghu@zuel.edu.cn](mailto:dezhuanghu@zuel.edu.cn)** |
| **Institute** | **School of Economics** | | | |
| **Applicable Object** | International Students | | | |
| **Course Objectives** | This course will introduce you to the way economists approach modeling these kinds of decisions, and give you practice with the kind of optimization models that will be used throughout the economics major. | | | |
| **Course Description**  **(200 words)** | The fundamental assumption of traditional microeconomic analysis is that when individuals and firms make economic decisions, they are solving a constrained optimization problem: that is, they are trying to maximize something (like profits or happiness) but are limited in the actions they can take due to resource constraints (like a fixed budget or workforce).  The course revolves around a “deep dive” behind the demand and supply curves you studied in the Principle of Microeconomics. In the first part of the course we will derive the demand curve from the “first principles” of a consumer choosing how to spend their money. We will then shift to firms, analyzing how they buy inputs and sell outputs. Finally, we will examine competitive equilibrium, both within a single market (“partial equilibrium”) and across multiple input and output markets (“general equilibrium”). We will close with an analysis of comparative advantage and the gains from trade. | | | |
| **Assessment Methods** | **Submit a course paper** | | | |
| **Textbooks and References** | **Nicholson, Walter, and Christopher M. Snyder. Microeconomic theory: Basic principles and extensions. Cengage Learning, 2012.** | | | |
| **Course planning** | | | | |
| **Chapter 1** | | **Economic Models**  The main goal of this book is to introduce you to the most important models that economists use to explain the behavior of consumers, firms, and markets. These models are central to the study of all areas of economics. Therefore, it is essential to understand both the need for such models and the basic framework used to develop them. The goal of this chapter is to begin this process by outlining some of the conceptual issues that determine the ways in which economists study practically every question that interests them. | | |
| **Chapter 2** | | **Mathematics for Microeconomics**  Microeconomic models are constructed using a wide variety of mathematical techniques. In this chapter we provide a brief summary of some of the most important techniques that you will encounter in this book. A major portion of the chapter concerns mathematical procedures for finding the optimal value of some function. Because we will frequently adopt the assumption that an economic actor seeks to maximize or minimize some function, we will encounter these procedures (most of which are based on calculus) many times. | | |
| **Chapter 3** | | **Preferences and Utility**  In this chapter we look at the way in which economists characterize individuals’ preferences. We begin with a fairly abstract discussion of the “preference relation,” but quickly turn to the economists’ primary tool for studying individual choices—the utility function. We look at some general characteristics of that function and a few simple examples of specific utility functions we will encounter throughout this book. | | |
| **Chapter 4** | | **Utility Maximization and Choice**  In this chapter we examine the basic model of choice that economists use to explain individuals’ behavior. That model assumes that individuals who are constrained by limited incomes will behave as though they are using their purchasing power in such a way as to achieve the highest utility possible. That is, individuals are assumed to behave as though they maximize utility subject to a budget constraint. Although the specific applications of this model are varied, as we will show, all are based on the same fundamental mathematical model, and all arrive at the same general conclusion: To maximize utility, individuals will choose bundles of commodities for which the rate of trade-off between any two goods (the MRS) is equal to the ratio of the goods’ market prices. Market prices convey information about opportunity costs to individuals, and this information plays an important role in affecting the choices actually made. | | |
| **Chapter 5** | | **Income and Substitution Effects**  In this chapter we will use the utility-maximization model to study how the quantity of a good that an individual chooses is affected by a change in that good’s price. This examination allows us to construct the individual’s demand curve for the good. In the process we will provide a number of insights into the nature of this price response and into the kinds of assumptions that lie behind most analyses of demand. | | |
| **Chapter 6** | | **Demand Relationships among Goods**  In Chapter 5 we examined how changes in the price of a particular good (say, good x) affect the quantity of that good chosen. Throughout the discussion, we held the prices of all other goods constant. It should be clear, however, that a change in one of these other prices could also affect the quantity of x chosen. For example, if x were taken to represent the quantity of automobile miles that an individual drives, this quantity might be expected to decrease when the price of gasoline increases or increase when air and bus fares increase. In this chapter we will use the utility-maximization model to study such relationships. | | |
| **Chapter 7** | | **Uncertainty**  In this chapter we explore some of the basic elements of the theory of individual behavior in uncertain situations. We discuss why individuals do not like risk and the various methods (buying insurance, acquiring more information, and preserving options) they may adopt to reduce it. More generally, the chapter is intended to provide a brief introduction to issues raised by the possibility that information may be imperfect when individuals make utility-maximizing decisions. The Extensions section provides a detailed application of the concepts in this chapter to the portfolio problem, a central problem in financial economics. | | |
| **Chapter 8** | | **Game Theory**  This chapter provides an introduction to noncooperative game theory, a tool used to  understand the strategic interactions among two or more agents. The range of applications of game theory has been growing constantly, including all areas of economics (from labor economics to macroeconomics) and other fields such as political science and biology. Game theory is particularly useful in understanding the interaction between firms in an oligopoly, so the concepts learned here will be used extensively in Chapter 15. We begin with the central concept of Nash equilibrium and study its application in simple games. We then go on to study refinements of Nash equilibrium that are used in games with more complicated timing and information structures. | | |