《中级微观经济学》教学大纲

Intermediate Microeconomics Syllabus

课程编号：151113A

**Course Code**: 151113A

课程类型：学科基础课

**Course Type**: Discipline basic course

总学时:**Period**: 48

学分：**Credits**: 3

适用对象：金融学（数据与计量分析）

**Applicable Majors**: Finance

先修课程：高等数学、经济学原理

**Preparatory Courses**: Advanced Math, Principles of Economics.

1. **课程的教学目标**

本课程是经济学原理的后续课程，旨在帮助学生以更严谨的方法去学习微观经济学的核心内容，以达到更深层次的理解。本课程将经济学直觉数理化，教学中将使用微积分和几何图形。学完本课程后，学生应该能使用数学工具表达微观经济学中基本概念，推导常用的经济学模型，并将所学模型用以分析身边的经济学问题。本课程为其他课程的学习提供微观经济学基础。

Building on Principles of Economics, this course aims to give students a deeper understanding on various microeconomic topics in a more rigorous way. Economic intuition will be formally modeled using mathematical language, and students are expected to use calculus and graph to solve these models. Upon completion of this course, students should be able to understand the basic concepts and models in an analytic way, and apply these techniques to solve various economic problems. This course will provide a microeconomic foundation for other economics courses.

1. **教学的基本要求**

中级微观经济学重点讲授消费者偏好与效用函数，消费者最优选择及其需求函数特征，厂商利润最大化和成本最小化及其供给函数，竞争性均衡，拍卖，外部性，垄断竞争，不对称信息。本门课程中的很多概念及模型在《经济学原理》中已经教授过，但本课程更注重严格的数理分析，要求学生能使用微积分及几何图形解决最优化问题和模型均衡解。为帮助学生理解这些概念和掌握解题技巧，很多实例将用来作为示范。课后练习是本门课程不可缺少的一部分。课后练习题与课上所授内容紧密相关，旨在让学生通过反复练习以达到掌握。课程考核由四部分组成，分别是平时作业20%，课堂测验10%，期中闭卷考试30%，期末闭卷考试40%。

This course will focus on the study of consumer preference and its utility representation, consumers’ optimal choice and the properties of demand functions, firms’ optimization problem and supply function, the interaction of demand and supply through competitive equilibrium, auction, monopolistic competition, externalities, and asymmetric information. These concepts and models have been introduced in Principle of Economics; however, they will be examined in a more rigorous way, requiring students solving optimization and equilibrium problem by calculus and graph. To help students understand the concepts and to illustrate the usefulness of economics models, concrete examples will be used throughout the teaching. Homework is an integrated part of this course. Homework questions follow lecture notes closely, and are designed to help students learn the concepts and techniques by solving problems. The grades include four parts, homework, quiz, midterm exam and final exam. Homework counts for 20% of the final grade, quiz counts for 10% of the final grade, midterm exam counts for 30% of the final grade, final exam counts for 40% of the final grade.

**三、各教学环节学时分配**

**教学课时分配**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 序号 | 章节内容 | 讲课 | 实验 | 其他 | 合计 |
| **1** | **偏好与效用**  **Preference and Utility** | **3** |  |  |  |
| **2** | **预算约束**  **Budget Constraint** | **3** |  | **Homework 1** |  |
| **3** | **消费者选择**  **Consumer Choice** | **3** |  |  |  |
| **4** | **需求**  **Demand** | **3** |  | **Homework 2** |  |
| **5** | **显示性偏好**  **Revealed Preference** | **3** |  |  |  |
| **6** | **斯拉茨基方程**  **Slutsky Equation** | **3** |  | **Homework 3** |  |
| **7** | **买与卖**  **Buying and Selling** | **3** |  |  |  |
| **8** | **消费者剩余**  **Consumer’s Surplus** | **3** |  | **Homework 4** |  |
| **9** | **均衡**  **Equilibrium** | **3** |  |  |  |
| **10** | **利润最大化**  **Profit Maximization** | **3** |  | **Homework 5** |  |
| **11** | **成本最小化**  **Cost Minimization** | **3** |  |  |  |
| **12** | **产业供给**  **Industrial Supply**  **结合一带一路，人类命运共同体** | **3** |  | **Homework 6** |  |
| **13** | **拍卖**  **Auction** | **3** |  |  |  |
| **14** | **外部性**  **Externalities** | **3** |  | **Homework 7** |  |
| **15** | **垄断行为**  **Monopoly Behavior**  **结合我国对外开放，世界贸易，四个自信** | **3** |  |  |  |
| **16** | **不对称信息**  **Asymmetric Information** | **3** |  | **Homework 8** |  |
| **合计** |  | **48** |  |  |  |

**四、教学内容**

**第一章 偏好与效用**

**CHAPTER I: Preference and Utility**

第一节关于偏好的假设

PART 1 Assumptions about preferences

第二节无差异曲线

PART 2 Indifference curves

第三节边际替代率

PART 3 The marginal rate of substitution

第四节构建效用函数

PART 4 Constructing a utility function

第五节边际效用

PART 5 Marginal utility

**教学重点、难点：**效用函数的排序特性，边际替代率的含义。

**Key Points:** the ordinal property of utility function and the meaning of the marginal rate of substitution.

**课程的考核要求：**理解效用函数的排序特性，掌握边际替代率的含义与计算。

**Requirement:** understand the ordinal property of utility function, master the meaning and calculation of the marginal rate of substitution.

**第二章：预算约束**

**CHAPTER 2：Budget Constraint**

第一节 预算约束

PART 1 The budget constraint

第二节 预算约束特征

PART 2 Properties of the budget constraint

第三节 预算线的变动

PART 3 How the budget line changes

第四节 税收，补贴和配额

PART 4 Taxes, subsidies, and rationing

**教学重点、难点：**预算约束线如何受收入，价格和经济政策影响而变动。

**Key Points:** how the budget line changes with respect to income, prices and economic policy.

**课程的考核要求：**熟练掌握预算约束线如何受收入，价格和经济政策影响而变动。

**Requirement:** master how the budget line changes with respect to income, prices and economic policy.

**第三章 消费者选择**

**CHAPTER 3 Consumer Choice**

第一节最优选择

PART 1 Optimal choice

第二节估计效用函数

PART 2 Estimating a utility function

第三节估计效用函数

PART 3 Implications of the MRS condition

第四节税收的选择

PART 4 Choosing taxes

**教学重点、难点：**最优选择的求解，估计效用函数，税收对最优选择的影响。

**Key Points:** solving the optimal choice, estimate the utility function, analysis of tax effect on optimal choice.

**课程的考核要求：**理解如何估计效用函数，掌握最优选择的求解，并会分析税收对最优选择的影响。

**Requirement:** understand estimating the utility function, master the technique of solving the optimal choice, analyzing tax effect on optimal choice.

**第四章 需求**

**CHAPTER 4 Demand**

第一节正常品与劣质品

PART 1 Normal and inferior goods

第二节恩格尔曲线

PART 2 Engle curve

第三节吉芬品

PART 3 Giffen goods

第四节需求曲线

PART 4 Demand curve

**教学重点、难点：**恩格尔曲线，劣质品和吉芬品之间的关系。

**Key Points:** Engle curve, the relation between inferior goods and Giffen goods.

**课程的考核要求：**理解恩格尔曲线的定义，以及劣质品和吉芬品之间的关系。

**Requirement:** understand the definition of Engle curve, and the relation between inferior goods and Giffen goods.

**第五章 显示性偏好**

**CHAPTER 5 Revealed Preference**

第一节显示性偏好的思想

PART 1 The idea of revealed preference

第二节弱显示性偏好公理

PART 2 The Weak Axiom of Revealed Preference

第三节强显示性偏好公理

PART 3 The Strong Axiom of Revealed Preference

**教学重点、难点：** 弱（强）显示性偏好公理。

**Key Points:** Weak (Strong) Axiom of Revealed preference.

**课程的考核要求：**掌握如何检验消费数据是否满足弱（强）显示性偏好公理。

**Requirement:** master how to check whether given data satisfies Weak (Strong) Axiom of Revealed preference.

**第六章 斯拉茨基方程**

**CHAPTER 6 Slutsky Equation**

第一节替代效应

PART 1 Substitute effect

第二节收入效应

PART 2 Income effect

第三节需求的总变动

PART 3 The total change in demand

第四节需求定律

PART 4 The law of demand

第五节补偿需求曲线

PART 5 Compensated demand curves

**教学重点、难点：**替代效应和收入效应，斯拉茨基方程的推导。

**Key Points:** substitute effect and income effect, and the derivation of Slutsky equation.

**课程的考核要求：**理解替代效应和收入效应，掌握斯拉茨基方程的推导。

**Requirement:** understand the definition of substitute effect and income effect, master the derivation of Slutsky equation.

**第七章 买与卖**

**CHAPTER 7 Buying and Selling**

第一节净需求与总需求

PART 1 Net and gross demands

第二节禀赋的改变

PART 2 Changing the endowment

第三节价格变动

PART 3 Price changes

第四节斯拉茨基方程

PART 4 The Slutsky equation revisited

第五节劳动供给

PART 5 Labor supply

**教学重点、难点：**禀赋变动对需求的影响，存在禀赋时斯拉茨基方程的推导。

**Key Points:** the effect of endowment on demand, Slutsky equation when there is endowment.

**课程的考核要求：**理解禀赋变动对需求的影响，掌握存在禀赋时斯拉茨基方程的推导。

**Requirement:** understand the effect of endowment on demand, master the Slutsky decomposition of demand change when there is endowment.

**第八章 消费者剩余**

**CHAPTER 8 Consumer’s Surplus**

第一节消费者剩余

PART 1: Consumer’s surplus

第二节拟线性效用函数

PART 2: Quasilinear utility

第三节补偿与等价变换

PART 3: Compensating and equivalent variation

第四节生产者剩余

PART 4: Producer’s surplus

第五节收益-成本分析

PART 5: Benefit-cost analysis

**教学重点、难点：**消费者剩余的含义，补偿变换和等价变换之间的关系。

**Key Points:** the meaning of consumer’s surplus, the relation between compensating and equivalent variation.

**课程的考核要求:** 理解补偿变换和等价变换之间的关系，掌握消费者剩余的含义与计算。

**Requirement:** understand the relation between compensating and equivalent variation, and master the meaning and calculation of consumer’s surplus.

**第九章 均衡**

**CHAPTER 9 Equilibrium**

第一节市场均衡

PART 1: Market equilibrium

第二节比较静态

PART 2: Comparative statics

第三节税收

PART 3: Taxes

第四节帕累托有效性

PART 4: Pareto efficiency

**教学重点、难点：**市场均衡的求解，市场均衡如何受经济政策影响而变动，以及市场均衡的效率性。

**Key Points:** solving market equilibrium, how market equilibrium changes with respect to economic policy, and the efficiency of market equilibrium.

**课程的考核要求:** 理解市场均衡如何受经济政策影响而变动，掌握市场均衡的求解以及市场均衡的效率性。

**Requirement:** understand how market equilibrium changes with respect to economic policy, master the technique to find a market equilibrium, and the efficiency of market equilibrium.

**第十章 利润最大化**

**CHAPTER 10 Profit Maximization**

第一节利润

PART 1: Profits

第二节固定和可变要素

PART 2: Fixed and variable factors

第三节短期利润最大化

PART 3: Short-run profit maximization

第四节长期利润最大化

PART 4: Profit maximization in the long run

**教学重点、难点：**固定和可变要素的定义，求解短期（长期）利润最大化的解。

**Key Points:** meaning of fixed and variable factors, solving short-run (long-run) profit maximization.

**课程的考核要求:** 理解固定和可变要素的定义,掌握短期（长期）利润最大化的求解。

**Requirement:** understand the meaning of fixed and variable factors, master the technique of solving short-run (long-run) profit maximization.

**第十一章 成本最小化**

**CHAPTER 11 Cost Minimization**

第一节成本最小化

PART 1: cost minimization

第二节规模收益与成本函数

PART 2: Return to scale and the cost function

第三节长期与短期成本

PART 3: Long-run and short-run costs

第四节固定与沉没成本

PART 4: Fixed and sunk costs

**教学重点、难点：**求解短期（长期）成本最小化的解，以及规模收益与成本的关系。

**Key Points:** solve short-run (long-run) cost minimization, the relation between return to scale and cost.

**课程的考核要求:** 理解规模收益与成本的关系，掌握短期（长期）成本最小化的求解。

**Requirement:** understand the relation between return to scale and cost, master the technique to solve short-run (long-run) cost minimization.

**第十二章 产业供给 （结合一带一路，人类命运共同体）**

**CHAPTER 12 Industry Supply**

第一节短期产业供给

PART 1: Short-run industry supply

第二节长期供给曲线

PART 2: The long-run supply curve

第三节固定要素和经济租金

PART 3: Fixed factors and economic rent

第四节能源政策

PART 4: Energy policy

**教学重点、难点：**短期（长期）供给曲线的推导，经济租金的含义。

**Key Points:** the derivation of short-run (long-run) supply curve, meaning of economic rent.

**课程的考核要求:** 理解

**Requirement:** understand the meaning of economic rent, master the derivation of short-run (long-run) supply curve.

**第十三章 拍卖**

**CHAPTER 13 Auction**

第一节拍卖的分类

PART 1: Classification of auctions

第二节拍卖设计

PART 2: Auction design

第三节位置拍卖

PART 3: Position auction

第四节拍卖的问题

PART 4: Problems with auctions

**教学重点、难点：**不同拍卖形式的特征，位置拍卖。

**Key Points:** the properties of different auctions, position auction.

**课程的考核要求:** 掌握不同拍卖形式的特征，理解位置拍卖。

**Requirement:** master the properties of different auctions, understand position auction.

**第十四章 外部性**

**CHAPTER 14 Externalities**

第一节吸烟者与非吸烟者

PART 1: Smokers and nonsmokers

第二节拟线性偏好与科斯定理

PART 2: Quasilinear preference and the Coase Theorem

第三节生产外部性

PART 3: Production externalities

第四节公共地悲剧

PART 4: The tragedy of the Commons

**教学重点、难点：**存在外部性时资源分配的无效率性，解决外部性的方法，公共地悲剧。

**Key Points:** the inefficiency when there are externalities, solutions to externalities, the tragedy of the commons.

**课程的考核要求:** 掌握存在外部性时资源分配的无效率性，解决外部性的方法，理解公共地悲剧。

**Requirement:** master the inefficiency when there are externalities, and solutions to externalities, understand the tragedy of the commons.

**第十五章 垄断行为（结合我国对外开放，世界贸易，四个自信）**

**CHAPTER 15 Monopoly Behavior**

第一节价格歧视

PART 1: Price discrimination

第二节一级价格歧视

PART 2: First-degree price discrimination

第三节二级价格歧视

PART 3: Second-degree price discrimination

第四节三级价格歧视

PART 4: Third-degree price discrimination

第五节捆绑

PART 5: Bundling

第六节两部定价

PART 6: Two-part tariffs

第七节产品差异化

PART 7: Product differentiation

**教学重点、难点：**存在垄断竞争时不同的定价方法，以及产品差异化。

**Key Points:** the pricing behavior and production differentiation when there is monopolistic competition.

**课程的考核要求:** 掌握存在垄断竞争时不同的定价方法，以及产品差异化

**Requirement:** master the pricing behavior and production differentiation when there is monopolistic competition.

**第十六章 不对称信息**

**CHAPTER 16 Asymmetric Information**

第一节柠檬市场

PART 1: The markets for lemons

第二节逆向选择

PART 2: Adverse selection

第三节道德风险

PART 3: Moral hazard

第四节发送信号

PART 4: Signaling

第五节激励

PART 5: Incentives

**教学重点、难点：**存在不对称信息时市场均衡的特征。

**Key Points:** the equilibrium results when there is asymmetric information.

**课程的考核要求:** 掌握存在不对称信息时市场均衡的特征。

**Requirement:** master the equilibrium results when there is asymmetric information.

**五、主要参考书 Textbook**

Hal R Varian. Intermediate Microeconomics: A Modern Approach, 8th edition. W.W.North & Company, 2009.