



University of Management and Technology

School of Business and Economics

Course Title: Topics in Advanced Microeconomics
Course Code: EC 700 A
Resource Person:
Department: Economics

SBE Vision

SBE envisions its success in the sustainable contribution that it will make to the industry, academia and research in public and private sector. SBE will lead by providing professionally competent and ethically conscious human resources engaged in the global and local context to foster socio-economic growth and sustainability for the society. SBE envisages having faculty with high research potential and a deep desire for cutting edge research including collaboration with national and international partners.

SBE Mission

Being a research-oriented and student-centric business school, we emphasize research publications in impact journals as well as state-of-the-art learning methodologies. We will prepare our students to become the future ethical business leaders and the guiding post for the society, while equipping them with the knowledge and skills required by world-class professionals. We will be the leading choice for organizations seeking highly talented human resource. SBE will foster internationalization with key stakeholders and actively work to exchange best practices with business schools across Pakistan through collaborations, workshops, conferences and other means.

Program Objectives

The main objective of the program is to develop knowledge and skills of the participants. This program has been designed for students who, after completing MPhil degree, are looking for some knowledge based, career oriented, and market-driven educational program that would lead to lucrative careers. The program is a blend of theory, quantitative, research and applied areas in economics. This prepares students to start their careers in advanced research institutions or teaching jobs at university level in Pakistan or abroad.

Course Objectives

The main aim of the course is to provide comprehensive knowledge of consumer, firm and market theory and their applications. At the conclusion of this subject, the student will be equipped with

Microeconomic tools to analyze complex business issues and strategies and will be able to critically discuss issues relating to economic theory and business decision making.

Learning Objectives

1. Based on underpinning complex theories of consumer, students will be able to device how to make optimal decisions
2. Interaction of demand and supply will provide insight to how prices and quantities of products vary and influence relating products and how are affected the most
3. Studying the market environment will equip students of business and commerce to make decisions of their own regarding pricing and production in order to survive in the market

Learning Outcomes

1. The general behavior of economic agents, students will have idea of about rational behavior and skills to manage their expenditures
2. Ensuring critical thinking is a part of sellers and buyers and how their interactions influence outcomes
3. Different type of firm works in the different market system, students will be equipped with strategies to perform in each market.

Teaching Methodology (List methodologies used -example are given below)

Interactive Classes
Case based teaching
Class activities
Applied Projects
Experiential Learning

STUDENTS ARE REQUIRED TO READ AND UNDERSTAND ALL ITEMS OUTLINED IN THE PARTICIPANT HANDBOOK

Class Policy:-

- **Be On Time**
You need to be at class at the assigned time. After 10 minutes past the assigned time, you will be marked absent.
- **Mobile Policy**
TURN OFF YOUR MOBILE PHONE! It is unprofessional to be texting or otherwise.
- **Email Policy**
READ YOUR EMAILS! You are responsible if you miss a deadline because you did not read your email. Participants should regularly check their University emails accounts regularly and respond accordingly.
- **Class Attendance Policy**
A minimum of 80% attendance is required for a participant to be eligible to sit in the final examination. Being sick and going to weddings are absences and will not be counted as present. You have the opportunity to use 6 absences out of 30 classes. Participants with less than 80% of attendance in a course will be given grade 'F' (Fail) and will not be allowed to

take end term exams. International students who will be leaving for visa during semester should not use any days off except for visa trip. Otherwise they could reach short attendance.

- **Withdraw Policy**

Students may withdraw from a course till the end of the 12th week of the semester. Consequently, grade W will be awarded to the student which shall have no impact on the calculation of the GPA of the student. A Student withdrawing after the 12th week shall be automatically awarded “F” grade which shall count in the GPA.

- **Moodle**

UMT –LMS (Moodle) is an Open Source Course Management System (CMS), also known as a learning Management System (LMS). Participants should regularly visit the course website on MOODLE Course Management system, and fully benefit from its capabilities. If you are facing any problem using moodle, visit <http://oit.umt.edu.pk/moodle>. For further query send your queries to lms@umt.edu.pk

- **Harassment Policy**

Sexual or any other harassment is prohibited and is constituted as punishable offence. Sexual or any other harassment of any participant will not be tolerated. All actions categorized as sexual or any other harassment when done physically or verbally would also be considered as sexual harassment when done using electronic media such as computers, mobiles, internet, emails etc.

- **Use of Unfair Means/Honesty Policy**

Any participant found using unfair means or assisting another participant during a class test/quiz, assignments or examination would be liable to disciplinary action.

- **Plagiarism Policy**

All students are required to attach a “Turnitin” report on every assignment, big or small. Any student who attempts to bypass “Turnitin” will receive “F” grade which will count towards the CGPA. The participants submit the plagiarism report to the resource person with every assignment, report, project, thesis etc. If student attempts to cheat “Turnitin”, he/she will receive a second “F” that will count towards the CGPA. There are special rules on plagiarism for final reports etc. all outlined in your handbook.

- **Communication of Results**

The results of quizzes, midterms and assignments are communicated to the participants during the semester and answer books are returned to them. It is the responsibility of the course instructor to keep the participants informed about his/her progress during the semester. The course instructor will inform a participant at least one week before the final examination related to his or her performance in the course.

Course Outline

Course code: EC 700 A

Course title: Topics in Advanced Microeconomics

Program	PhD Economics
Credit Hours	3
Duration	15 Weeks
Prerequisites (If any)	None
Resource Person Name and Email	
Counseling Timing (Room#)	
Contact no.	
Web Links:- (Face book, Linked In, Google Groups, Other platforms)	Moodle Course name:

Chairman/Director Programme signature.....Date.....

Dean's signature.....Date.....

Grade Evaluation Criteria

Following is the criteria for the distribution of marks to evaluate final grade in a semester.

Marks Evaluation	Marks in percentage
Quizzes/Assignments/Take Home problems sets/Term Paper	25
Mid Term	25
Final exam	50
Total	100

Recommended Text Books:

- Micro economic theory by Walter Nicholson (Latest Edition), the Dryden Press (USA)
- Eugene Silberberg and Wing Suen, the Structure of Economics: Mathematical Analysis, 3rd Ed. New York, McGraw-Hill.
- J.Henderson and R. Quant, Microeconomic Theory: A Mathematical Approach, 3rd Ed, New York:MecGraw- Hill.
- Jean E. Weber, Mathematical Analysis: Business and Economics Applications, Harper and Row, Publishers Inc, Cambride/Philadephia, 4th ed.

Additional Reading:

- Introduction to mathematical economics by Edward T Dowling. 3rd edition McGraw Hill Companies Inc. NY USA
- Modern Microeconomics by A. Koutosyiannis 2nd edition Mac Millan USA.
- Microeconomics & behavior by Robert Frank Latest Edition McGraw Hill N.Y. USA.
- Fundamental Methods of Mathematical Economics by Alpha C. Chiang. Latest Edition McGraw Hill N.Y. USA.

Course: Topics in Advanced Microeconomics

Course Code: EC 700 A

Books: Nicholson, W., & Snyder, C. M. (Latest Edition).

Week	Topics to be covered in the course	Learning Objective of this topic	Expected Outcomes from Students	Teaching Method	Assessment Criteria	Deadlines & Homework
1	Introduction to Advanced Microeconomics. Recapitulation, Rules of differentiation, their use in economics, maxima, minima, point of inflection, saddle point and indeterminate form.	Getting familiar with simple optimization approach.	1. Student can use differentiation in optimizing utility functions. 2. On the basis of outcomes they are in position to understand how to make proper decision regarding the optimal use of scarce resources.	Interactive Class Discussions	In class exercises.	Within a Week
2	Optimization of a Function Functions of Several Variables Implicit Functions The Envelope Theorem Constrained optimization	Getting accustomed with the advanced optimization approaches	1. Students will learn about derivatives and Integration to be utilized in micro economic models	Lecture, Numerical examples	In class exercises. Quiz 1 Take Home problem (set 1)	Within a Week
3	Second Order Conditions Homogenous Functions Envelope theorem Derivation of individual demand functions (Marshallian Demand Function)	Getting accustomed with the advanced optimization approaches	1. Students will learn about derivatives to be utilized in microeconomic models	Lecture, numerical examples (case study)	In class exercises, presentation, discussion Assignment 1 <i>Note: Assignment # 1 will be from end of the chapter exercises of Microeconomics by Walter Nicholson</i>	Within a Week
4	Derivation of indirect utility function from Marshallian demand function and derivation of compensated demand function (Hicksian demand function)	Foundations of consumer theory	1. Participants will learn to the concept of utility and its application in economics. 2. Learn the difference between direct and indirect utility functions	Lecture Numerical examples	In class exercise Case Study	Within a Week

5	Concept of homogeneous functions and Roy's identity, and shephard's lemma	Use of modern tools in microeconomic analysis	1. Participants will be able to use the acquired knowledge in economic applications related to advanced topics	Lecture In class discussion	In class exercises Take home problem set 2	Within a Week
6	Derivation of constant output demand function/derived demand function/Input demand function, elasticities with respect to capital and labor	Getting familiar with the derived demand function and its relation with the elasticities	1. Participants will learn about the relationship between production and demand.	Lecture and numericals, and other Economic applications	Assignment 2 Quiz 2	Within a Week
7	Cost of production and derivation of cost function from production function. Derivation of short run supply curve of firm and industry from cost function	Relation between cost of production and supply curve	1. Participants will observe and analyze the changes in cost of production and supply of that product.	Lecture Interactive class discussion	Case Study 2	Within a Week
8	Derivation of profit maximizing derived demand functions for capital and labor. Derivation of supply functions of a firm Derivation of profit function of the firm Using Hotelling Lema for finding derived demand function for capital and labor and supply function from profit function	Understanding the theory of production and its relationship with demand and supply function	1. Different types of production functions will be discussed	Lecture and numericals, and other Economic applications Case study	Presentation	Within a Week
9	MID TERM					
10	Pricing of factor and market structure.	Understanding pricing of factor	1. Students will learn about the factor demand and their relationship with production	Lecture, presentation and	Assignment 3	Within a Week

	Demand for a factor, Marginal revenue product curve (MRP) Value of marginal product (VMP), Marginal factor cost (MFC), Input price elasticity	and market structure		numerical examples		
11	General Equilibrium theory assumptions of 2x2x2 model. Static properties of a General Equilibrium state Edgeworth Box diagram. Equilibrium conditions	Understanding the mechanism of General Equilibrium	1. The students will be able to handle the complex mechanism General Equilibrium	Lecture, presentation and numerical examples	Quiz 3	Within a Week
12	Pareto optimality, General Equilibrium and the allocation of resources. Welfare Economics, criteria of social welfare. Welfare maximization.	Understanding the concept of Welfare Economics	1. Students will learn Pareto optimality in competitive model	Lecture, presentation and numerical examples	In class activity	Within a Week
13	Game Theory and its applications in oligopoly. Nash equilibrium, description of games.	Getting familiar with the Game Theory	1. Students will be able to understand the working of Game Theory in optimal decision making in economics	Guest Speaker & Documentary	Presentation/Class discussion	Within a week
14	The prisoners dilemma, Cournot equilibrium, Bertrand equilibrium	Using Game Theory in business decision making	2. Students will use Game Theory for understanding the optimal decision making	Lecture, discussion and numerical examples	In Class activity	Within a week
15	Some economic application of Game Theory, revision and preparation for final exam	Understanding the dynamics of Game Theory	3. Use of Game Theory in economic decisions	Lecture	In class activity	Within a week
16	Final Term					