ECO - 201 : Microeconomics

Course Objectives

This module aims to develop students' understanding of the microeconomic concepts and theories in order to enhance their skill in analyzing business opportunities, market and risks.

Contents

Microeconomics: concepts and uses. Theory of demand and supply: demand function, change in quantity demanded and change in demand, supply function: change in quantity supplied and change in supply, elasticity of demand and supply – concepts, degrees and measurements. Utility Analysis: cardinal vs ordinal utility and indifference curve analysis. Theory of production: Production function, laws of production. Cost and revenue curves. Pricing: Price and output determination under perfect competition, monopoly and monopolistic competition, concept of oligopoly. Factor pricing: rent (modern theory of rent) wages (marginal productivity theory), interest (loanable fund theory and liquidity preference theory) and profit (dynamic theory and innovation theory).

Detailed Course

Unit 1: Introduction to Microeconomics   **LH 3**

Meaning, Scope, Types, Uses

Unit 2: Theory of Demand and Supply   **LH 6**

Demand function
- § Meaning and types
- § Movement along a demand curve and shifts in demand curve

Supply Function
- § Meaning and types
- § Movement along a supply curve and shifts in supply curve

Concept of Elasticity of demand and supply
- § Price elasticity of demand: degrees, measurement (percentage, total outlay, point and arc methods), uses in business decision making.
- § Income elasticity of demand: degrees, measurement (percentage, arc and point methods)
- § Cross elasticity of demand: types, measurement (percentage and arc methods)
- § Price elasticity of supply: degrees, measurement (percentage, point and arc methods)

Measurement of elasticity

Unit 3: Theory of Consumer's Behaviour   **LH 8**

Cardinal vs ordinal utility

Indifference curve analysis
- § Meaning, assumptions and properties
- § Principle of MRS
- § Consumer's equilibrium

§ Price effect – derivation of PCC and demand curves for normal goods (substitutes and complements)

§ Income effect – derivation of ICC and Engel curves for normal goods and inferior goods

§ Substitution effect – Hicksian approach

§ Decomposition of price effect into income and substitution effects – Hicksian approach

§ Applications – tax and subsidy, income leisure choice of workers

Computations and Numerical assignments

Unit 4: Theory of Production   LH 7

Concept of total, average and marginal product

Production function – meaning, types (short run and long run production function, Cobb-Douglas production function.

Law of variable proportions (explanation of three stages of production with reasons)

Isoquants

§ Meaning, assumptions and properties

§ Principle of marginal rate of technical substitution

§ Optimal employment of two inputs (or least cost combination of two inputs)

Laws of returns to scale

§ Explanation with table and diagram (using IQ)

Computations and Numerical assignments

Unit 5: Cost and Revenue Curves   LH 8

Cost function

Various concepts of costs: opportunity cost, explicit and implicit costs, accounting and economic costs

Short run costs

§ Behaviour of short run total costs

§ Behaviour of average and marginal cost curves

§ Relation between AC and MC, TVC and MC and AC and AFC and AVC

Long run costs

§ Meaning

§ Derivation of U-shaped and L-shaped LAC with reasons

Revenue

§ Revenue under perfect competition

§ Revenue under imperfect competition

§ Relationship of Revenues (TR, AR and MR) with price elasticity of demand

Computations and Numerical assignments

Unit 6: Theory of Product Pricing   LH 10

Profit maximisation and equilibrium of a firm

§ TR-TC approach (table and diagram)

§ MR-MC approach (table and diagram)

Equilibrium price and output determination under perfect competition

§ Meaning and characteristics

- § Derivation of short run supply curve of a firm
- § Short run equilibrium (firm and industry)
- § Long run equilibrium (firm and industry)

Equilibrium price and output determination under monopoly
- § Meaning and characteristics
- § Short run equilibrium
- § Long run equilibrium
- § Meaning and conditions of price discrimination
- § Degrees of price discrimination
- § Equilibrium of firm under third degree discrimination

Equilibrium price and output determination under monopolistic competition
- § Meaning and characteristics
- § Short run equilibrium
- § Long run equilibrium of a firm

Oligopoly
- § Meaning and characteristics

Computations and Numerical assignments

Unit 7: Theory of Factor Pricing   **LH 6**

Rent
- § Concept of economic rent and its determination: modern theory of rent.

Wages
- § Marginal productivity theory of wages

Interest
- § Loanable funds theory of interest
- § Liquidity preference theory of interest

Profits
- § Dynamic theory of profits
- § Innovation theory of profits

Computations and Numerical assignments

References

Ahuja, H.C. ***Advanced Economic Theory – Micro Economic Analysis,*** New Delhi – S. Chand (Latest ed.)

Browning and Browning (1994), ***Microeconomic Theory and Applications,*** New Delhi, Kalyani Publishers

Case, Karl E. and Ray C. Fair, (2002), ***Principles of Economics,*** Singapore, Pearson Education

Dwibedi DN (2003), ***Microeconomics Theory and Applications,*** Delhi, Pearson Education Pvt. Ltd.

Dwibedi DN (2010), ***Microeconomics Theory and Practice,*** New Delhi, Tata McGraw Hill.

Koutsoyianis, A (1979), ***Modern Microeconomics,*** London, Macmillan

McConnell CR and S. Brue, (2002), ***Economics : Principles, Problems and Policies,*** New York, McGraw Hill.

ENG - 201 : English - I

Module Objectives

This module aims to develop students' skill in oral and written communication in English language.

Contents

Intensive practice to improve listening comprehension for both daily and academic needs: the focus shall be on development of active listening habit and utilizing oral information in a variety of contexts. Grammatical and structural review of English: review of standard grammatical forms and their application in a variety of writing formats. Reading comprehension: development of reading comprehension proficiency from business related areas.

Detailed Course

Unit 1: Poems   **LH 7**

- o Piano
- o Great Scott! Gadzooks!
- o On the Eve of His Execution
- o Stopping by Woods on a Snowy Evening
- o Where the Mind Is Without Fear

Unit 2: Short Stories   **LH 14**

- o Yudhisthira's Wisdom
- o The Brave Little Parrot
- o If Not Higher
- o The Library Card
- o Marriage is a Private Affair
- o Who was to Blame?
- o Third Thoughts
- o Mr. Know-All
- o The Telegram on the Table
- o The Great Answer
- o A Tale

Unit 3: Essays   **LH 10**

- o Why Go to University?
- o Curbing the One-eyed Monster
- o How Sane Are We?
- o The Burden of Skepticism
- o Keeping Errors at Bay
- o We Are Breaking the Silence about Death
- o The Savage Male

Unit 4: Technical Writing   **LH 6**
- o   Chapter – 18 – Grammar, Punctuation, Mechanics and Spelling

Unit 5: Daily English Newspapers   **LH 8**
<u>**Questions**</u>
- o   Comprehension (Newspaper)   4 x 2 = 8
- o   4 levels from any topic (no text)   = 12
- o   Short answers (6 ques. choice)   5 x 5 = 25
- o   Technical Writing   = 15

Detailed course and model question
of
ITC 201: Computer Systems and Information Technology Applications

Detailed Course

Unit I: Introduction to Computer System: Definition of Computer with Architecture and its Features, History of Computer, Types of Computer (analog, digital (super, mainframe, mini and micro) and hybrid), Classification of Micro Computer (Desktop, Laptop and Hand Held devices).   **LH 2**

Unit II: Input Devices: Definition of Input Devices and its type (Mouse, Keyboard, Microphone, Scanner, TouchPanel, MICR, OBR and OMR), Uses of input devices.   **LH 2**

Unit III: Output Devices: Definition of Output devices and its type (Softcopy and Hardcopy), Monitor (CRT, LCD, LED, and Plasma), Printer (Impact and Non-Impact), Uses of Output devices.   **LH 2**

Unit IV: Storage Devices: Primary Storage Device (RAM and its type, ROM and its type and Cache Memory), Secondary Storage Devices (Hard Disk, Optical Disk, Flash Drive, Memory/SD card), and Uses of storage devices and Memory Hierarchy.   **LH 2**

Unit V: Central Processing Unit: Control Unit, Arithmetic and Logic Unit, Register set, Functions of Central Processing Unit. Introduction to Bus (Address, Data, Control)   **LH 2**

Unit VI: Operating System, Features of Operating System, Types of Operating Systems, Support for Networking.   **LH 2**

Unit VII: Computer Network: Introduction to computer network, Pros and Cons of Computer Network, Types of computer network (On the basis of size and architecture), Introduction to IP addresses (IPv4 and IPv6)**.**   **LH 2**

Unit VIII: Application Software: Introduction, types and uses of Application software. Office package (Word Processor, Spread Sheet and Presentation)tool: Introduction and Features.

            Word Processor (Microsoft Office Word 2007): Paragraph formatting, font formatting, managing layout of document, editing document, reviewing document (Track changes, Adding comments, Proofing). Inserting pictures, tables, shapes, hyperlink, header, footer, page number, Watermark, Footnote, caption, text box, word art, equations, symbol and chart. Table of Content, Mail Merge, Text wrapping and Templates.

            Spread Sheet (Microsoft Office Excel 2007): Font formatting, cell formatting, alignment, inserting picture, charts, shapes, header, footer, page number, symbol, page setup, using formula, sorting table, using filters, reviewing spreadsheet, Freezing panes.

            Presentation Tools (Microsoft Office PowerPoint2007): formatting font, paragraph; inserting new slides, pictures, charts shapes, header footer, word art, date and time, slide number; page setup, slide orientation; using different themes for slide; animations: slide transition, custom animation; Slide show; reviewing slides.

Image processing software (Photoshop): Working with image: size, mode, adjustment, crop, transform, Extract, Distort; Working with layers, working with filter, working with guide, grid and ruler, working with channel.   **LH 13**

Unit IX: Utility Software: Definition and uses of Utility software, Device Manager, Disk cleaner, Disk scanner, Disk Defragmenter, virus scanner, spyware scanner, Introduction and uses of Device Driver, Language Translator   **LH 2**

Unit X: Information Technology, Importance of IT, Different hardware and software used in IT, Application of IT in Science and Engineering, Business and Commerce, Education, Government, Medicine, Entertainment.   **LH 4**

Unit XI: Financial Information System (FIS), Features of FIS, Personal FIS, Organizational Financial Management. FIS and organizational decision making process, personal financial management system, Application of FIS, Financial Calculator: Ratio Analysis (current ratio, inventory turnover ratio, days sales outstanding, fixed assets turnover, total assets turnover ratio, profit margin on sales, basic earning power ratio, return on total assets, return on common equity, Price/Earnings Ratio, Price/Cash Flow ratio), Future value, Annuity, Retirement Planning, Amortized loan, Measuring Riskiness of Firm and Risk comparison. **LH 6**

Unit XII: Marketing Information System (MkIS), Features of MkIS, MkISand marketing decision making process, Application of MkIS, Simple MkIS: Evaluating Marketing campaign, Marketing Expense to Revenue, Customer Acquisition Cost, Time to pay back customer Acquisition Cost, Break Even Analysis.   **LH 6**

Text book

ITL Education Solutions Limited*, "Introduction to Information Technology", Pearson Education India*

References:
- Keyes, J. "*Financial Services Information Systems (Best Practices)*", Auerbach Publications; 2 Sub edition
- James B. Bower, Robert Edward Schlosser, Charles T. Zlatkovich, "*Financial information systems: theory and practice*"
- Kimball P Marshall, "*Marketing information systems: creating competitive advantage in the information age*", Boyd & Fraser Pub Co

TRIBHUVAN UNIVERSITY
FACULTY OF MANAGEMENT
Office of the Dean
2014

Full Marks: 40

Time: 2 Hrs.

BBA / First Semester / ITC 201: Computer Systems and Information Technology Applications

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Candidates are required to give their answers in their own words as far as practicable.

Group "A"

Brief Answer Questions: *[10 × 1 = 10]*

1. Define computer system.
2. How touch position is identified in optical touch panel?
3. What is the main goal to use memory hierarchy in computer system?
4. Why CRT and Plasma are not used in Laptops?
5. Why register set is required in CPU?
6. What is paragraph formatting?
7. List any four features of Photoshop.
8. Define Network operating System?
9. What does disk cleaner do?
10. Why antivirus is needed to be installed in computer system?

Group "B"

Short Answer Questions: *[6 × 3 = 18]*

11. Write steps to print Five copies of a excel sheet.
12. What do you mean by sorting? Explain the steps required to sort table in ascending order.
13. Write the steps to animate five different elements of a slide. (Each element can have same animation or different).
14. How information system can help hospitals to perform its function effectively?
15. What is jpeg/jpg file format? How will you reduce size of an image?
16. Define Network. Classify the network on the basis of size and architecture.

Group "C"

Long Answer Questions: *[3 × 4 = 12]*

17. Define financial information system (FIS)? How FIS can be of value for individuals?
18. What is marketing information system (MkIS)? How can MkIS be used to evalute effectiveness of advertising?
19. What do you mean by reviewing documents? Write steps to review a document.

✦✦✦✦

MGT - 201 : Principles of Management

Course Objectives

This module aims to impart the basic management knowledge, and skills to the students so as to enhance their managerial capabilities and enable them to apply in the practical field.

Contents

Concepts and functions of management. Management perspective. Planning: meaning, classification, steps and tools. Planning premises. Decision making: meaning, types, conditions and process. Organizing: meaning, process, principles, and architecture. Authority and responsibility. Centralization, delegation and decentralization. Staffing. Emerging issues in organizing. Leading: meaning, qualities and styles. Individual differences and psychological contract. Introduction to groups. Concept of managerial ethics. Motivation: concept and techniques. Communication: meaning, process, types and barriers. Controlling: meaning, process and techniques. Quality. Organizational change and development and Operation and technology management. .

Detailed Course

Unit 1: Introduction   LH 4

Management: concepts, meaning, essence, levels and functions. Types of managers. Managerial roles and skills. Becoming a manager: role of education, experience and situation. Business environment and society-external environment, corporate social responsibility, ethics, corporate governance and ethical standards.

Unit 2: Perspectives in Management   LH 8

Early development. Classical Perspective: scientific management, administrative management and bureaucracy. Behavioral Perspective: Hawthorne studies, human relations movement, and emergence of organizational behavior. Quantitative Perspective: management science and operations management. Integrating perspectives: systems and contingency perspectives. Emerging management issues and challenges.

Unit 3: Planning   LH 7

Meaning. Levels of Planning: Strategic, Tactical and operational. Steps in Planning. Tools for planning. Planning premises. Pitfalls of planning. Improving planning. Decision Making: meaning, types and process. Decision making conditions – certainty, risk and uncertainty. Practical excercises on taking decisions including decision making using indicators.

Unit 4: Organizing   LH 8

Meaning, process and principles of organizing. Organization Architecture: vertical differentiation – tall versus flat hierarchies, horizontal differentiation – functional structure, multidivisional structure, geographic structure, and matrix structure. Responsibility: establishing task and reporting relationships, creating accountability**.** Authority: line authority and staff authority. Delegation of

authority. Centralization, Decentralization and Devolution: meaning, reasons, advantages and disadvantages. Emerging issues in organization design. Staffing: concept and importance.

Unit 5: Leading   LH 7

Meaning and qualities of leadership. Understanding Individual differences and psychological contract. Concept and types of groups. Leadership Styles: autocratic, democratic, and participative. Concept of managerial ethics. Motivation: concept, importance, and techniques. Communication: meaning, process, and networks. Concept of active listening. Types of communication, Barriers to effective communication.

Unit 6: Controlling   LH 10

Meaning, purpose, Process and types of controls. Essentials of effective control systems. Control tools and techniques. Quality: Concept and importance. Total Quality Management: concept, components, principles, tools and techniques. Emerging issues in quality management. Production and operation management, supply chain management, Kaizen, six sigma, The Japanese 5S practice, Technology management, Management information system and IT.

Unit 7: Organizational Change and Development   LH 4

Nature, forces, paradigm shifts and areas (structure,technology, business process and behaviors) of organizational change. Resistance to change. Overcoming resistance to change. Concept of Organizational Development, OD intervention.

Addendum: At least one case will be administered at the end of each chapter. The students will also complete a project work and a few other assignments as specified by the faculty member.

References
Adhikari, Dev Raj. *Principles of Management*, Sunrise Publication, Kathmandu.
Charles W.L. Hill and Steven L. McShane, *Principles of Management,* Tata Mc-Graw-Hill Company, New Delhi.
Griffin, Ricky W., *Management.* AITBS Publishers and Distributors, New Delhi.
Hitt, M.A., J.S. Black and Porter, L.W., *Management,* Pearson Education, New Delhi.
Pant, Prem Raj, *Principles of Management,* Buddha Academic Publishers and Distributors Pvt. Ltd.
Paudyal, Santosh Raj, Pradhan, Gopal Man and Bhandari, Kedar P. (2064), *Principles of Management,* Asmita Publication, Kathmandu.

MTH - 201: Business Mathematics - I

Course Objectives

The course introduces mathematical techniques through examples of their application to economic and business concepts. It also tries to get students tackling problems in economics and business using these techniques as soon as possible so that they can see how useful they are. The purpose of the course, then, is to present mathematical skills and concepts, and to apply them to ideas that are important to the management students.

In addition, three course includes the basics of spreadsheet operations relating to solving equations, systems of equations, quadratic equations, matrices, the Mathematics of Finance and some numerical methods as well.

Contents

Straight lines and Functions, their Applications in Market Analysis, Excel for Linear Functions Simultaneous Equations and Use them in Equilibrium Market Analysis, Quadratic Equations and Economic Applications, Non-linear Functions, Numerical Methods for Solving Nonlinear Equations, their Graphs and Applications, Financial Mathematics, Excel for Financial Mathematics, Differentiation and Applications in Marginal Analysis, Economic Applications in Optimization.

Detailed Course

Unit 1. Straight lines and Functions   6 hrs

Straight lines, Linear Functions,

Applications: demand, supply, cost, revenue, Elasticity of demand, supply and income,

Budget and cost constraints, Method of Least Squares;

Lab. Work: Introducing Excel, Excel for linear functions.

Unit 2. Simultaneous equations   6 hrs

Simultaneous linear equations, Equilibrium and break-even, Consumer and producer surplus, the *IS-LM* model

Lab. Work: Excel for simultaneous linear equations.

Unit 3. Quadratic Equations   7 hrs

Graphs of Quadratic Functions, Quadratic Equations, Applications to Economics;

Lab. Work: Excel for quadratic equations.

Unit 4. Non-linear functions, their graphs and applications 10 hrs

Cubic and other polynomial functions, Exponential functions, Logarithmic functions,

Hyperbolic functions of the form $a/(bx + c)$;

Bisecton method, Newton-Raphson method for solving nonlinear equatons;

Lab. Work: Excel for non-linear functions;

Smart math calculator (software): Bisecton method, Newton-Raphson method.

Unit 5. Financial mathematics   10 hrs

Arithmetic and geometric sequences and series; Simple interest, compound interest and annual percentage rates, Depreciation, Net present value and internal rate of return, Annuities, debt repayments, sinking funds; Relationship between interest rates and the price of bonds;

Lab. Work: Excel for financial mathematics.

Unit 6. Differentiation and applications   9 hrs

Slope of a curve and differentiation, Rules of differentiation, Differentiation and marginal analysis, Optimization for functions of one variable, Economic applications of maximum and minimum points, Curvature and other applications, Elasticity and the derivative;

Lab. Work: Excel for applications of derivatives.

References
Teresa Bradley, ***Essential Mathematics for Economics and Business,*** John Wiley & Sons Ltd

Frank S. Budnick, ***Applied Mathematics for Business, Economics, and the Social Sciences,*** McGraw-Hill Ryerson, Limited.

Ronald J. Harshbarger, James J. Reynolds , ***Mathematical Applications for the Management, Life, and Social Sciences,*** Houghton Mifflin Company.

Vassilis C. Mavron, Timothy N. Phillips, ***Mathematics for Economics and Finance,*** Springer-Verlag.

G. S. Monga, ***Mathematics for management and economics,*** Vikas Publishing House Pvt. Ltd., New Delhi.

Mike Rosser, ***Basic Mathematics for Economists,*** Routledge Taylor & Francis Group

Alpha C. Chiang, ***Fundamental Methods Of Mathematical Economics,*** McGraw-Hill, Inc.

Srinath Baruah, ***Basic Mathematics and its Application in Economics,*** Macmillan India.

A. B. Sthapit, P. M. Bajracharya and et al: ***Fundamentals of Business Mathematics,*** Buddha Academic Publishers & Distributors Pvt. Ltd., Nepal.