

NATIONAL UNIVERSITY BANGLADESH



Syllabus for Department of Accounting

**Four-Year BBA (Honours) Program
Effective from the Session: 2024–2025**



National University, Bangladesh

Bachelor of Business Administration (BBA)

Curriculum: Sustaining OBE Compliance

Department of Accounting

1. Title of the Academic Program

Bachelor of Business Administration (BBA) Program

2. Name of the University

National University, Bangladesh

3. Mission

To promote “Progress for Everyone” by fostering transformative education, conducting pioneering research, and encouraging meaningful collaboration with individuals, communities, and partners both in Bangladesh and around the world.

4. Vision

We expect that the hundredth anniversary of the National University, our commitment to “Progress for Everyone” will be evident in all areas of our operations and stakeholder engagements.

We leverage our core strength in education, research, and community engagement to address pressing global issues and foster sustainable development.

By 2042, National University aims to strengthen its position as Bangladesh’s top academic institution and rank among the world’s leading universities. Our focus will be on expanding expertise, building strategic partnerships, and increasing our global influence. Our services will be measured by the achievements of the individuals and communities we serve.

5. Name of the Program Offering Entity

National University, Bangladesh

6. Vision of the Program

The vision of the program is to develop human capital who has intelligence with a realistic business climate through business skills, unique talents, soft skills, educational and practical experience, digital and technological literacy and a strong sense of ethical and social responsibility to take the challenges of 21st century workplace.

7. Mission of the Program

To meet its vision, the program sets its mission to-

M-1	Provide an in-depth knowledge among the graduates in the different areas of Business Management through teaching and learning that is rigorous, relevant and at the digital and technological edge.
M-2	Encourage creativity and innovation among the graduates to develop problem-solving skill and ability to adopt business and technological changes at the 21 st century workplace.
M-3	Provide a learning and sharing culture for the learners that enable them to maximize their career potential.
M-4	Enable learners to operate own business through entrepreneurial skills with strong ethical and social responsibility.
M-5	Develop human capital by addressing sustainability issues and managing business technology in the 21 st Century workplace i.e. AI, Automation, Digitalization etc.

8. Objectives of the Program

- To provide teaching-learning activities with resource materials and tools to help the learners to be involved in deep learning process in the different branches of Business Management through imparting theoretical and practical knowledge.
- To equip learners with adequate tools of analysis to face real life challenges in the field of Business Management.
- To enable learners apply their knowledge and skills towards specific solution of each problems in the different branches of Business Management.
- To develop learners with social skills that will enable them to generate synergetic outcomes.

9. Name of the Program: BBA (Honours) in Accounting

10. Graduate Attributes (based on need assessment)

National University, Bangladesh is committed to lead through providing effective teaching & learning, culturally enriched educational experience that will transform the lives of its learners. Aspiration of the university is to produce graduate through developing knowledge, skill and attitudes (KSA) to equip them to promote growth and welfare of the rapidly changing world. In addition, to their subject specific expertise (Mastery of Subject related theoretical and practical Knowledge/conceptual skills) the university graduates will have the following attributes:

- Critical thinking, creativity, innovation and Entrepreneurial
- Leadership, Organizing, Analytical, Problem-solving, Negotiation and Decision making
- Technical, ICT and Digital Literacy

- Communication and Language (English) Proficiency and soft skills
- Social, Collaboration, Adaptation/ Flexibility Skills

11. Program Educational Objectives (PEOs)

PEOs are broad goals that describe what graduates are expected to achieve within a few years (typically 4 years) after completing the program. These reflect career and professional accomplishments.

PEOs	Description
PEO-1	Graduates will build successful careers in accounting, finance, auditing, taxation, financial management, or related fields in the private and public sectors.
PEO-2	Graduates will uphold ethical, social commitment and legal standards in professional practice.
PEO-3	Graduates will demonstrate leadership, effective communication, and collaboration in diverse business environments.
PEO-4	To cultivate a spirit of inquiry among graduates, encouraging them to investigate facts and truths through rigorous methodologies that integrate technological applications, empirical analysis, and sound decision-making.

12. Program Learning Outcomes (PLOs)

PLOs are specific, measurable skills or knowledge that students are expected to have by the time they graduate. These outcomes align with national or international qualification frameworks.

PLOs	Description
PLO-1	Apply accounting principles, standards, and procedures to prepare and analyze financial information.
PLO-2	Prepare and use cost and management accounting information for decision-making.
PLO-3	Interpret and apply taxation laws including VAT regulations.
PLO-4	Conduct audit engagements using accepted standards and ethical practices.
PLO-5	Apply financial theories and tools in business decision-making.
PLO-6	Demonstrate ethical awareness and legal compliance in accounting practices.
PLO-7	Communicate financial and accounting information clearly, both orally and in writing.
PLO-8	Use accounting and finance software and digital tools effectively.
PLO-9	Work effectively in teams and demonstrate leadership and responsibility.

13. Mapping PEO with PLO

PEO/PLO	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
PEO-1	√	√	√	√	√			√	
PEO-2				√		√			
PEO-3							√		√
PEO-4		√			√			√	

Mapping PEO to PLO

PLOs	PLO Description	Mapped PEOs
PLO-1	Apply accounting principles, standards, and procedures to prepare and analyze financial information.	PEO-1
PLO-2	Prepare and use cost and management accounting information for decision-making.	PEO-1, PEO-4
PLO-3	Interpret and apply taxation laws, including VAT regulations.	PEO-1
PLO-4	Conduct audit engagements using accepted standards and ethical practices.	PEO-1, PEO-2
PLO-5	Apply financial theories and tools in business decision-making.	PEO-1, PEO-4
PLO-6	Demonstrate ethical awareness and legal compliance in accounting practices.	PEO-2
PLO-7	Communicate financial and accounting information clearly, both orally and in writing.	PEO-3
PLO-8	Use accounting and finance software and digital tools effectively.	PEO-1, PEO-4
PLO-9	Work effectively in teams and demonstrate leadership and responsibility.	PEO-3

14. Year-Wise Courses and Marks Distribution

First Year

Course Code	Course Title	Marks	Credits
212501	Principles of Accounting (In English)	100	4
212503	Introduction to Business	100	4
212505	Principles of Marketing	100	4
212507	Principles of Finance (In English)	100	4
212509	Principles of Management	100	4
212511	Microeconomics	100	4
219901	History of Bangladesh: Language, Culture and Identity	100	4
219903	Information and Communication Technology	75	3
219904	Lab: Information and Communication Technology	25	1
Total		800	32

Detailed Syllabus

Paper Code	212501	Marks:100	Credits: 4	Class Hours: 60
Paper Title	Principles of Accounting (In English)			

Course Objective

The objective of this course is to develop students' understanding of basic concepts of accounting, the accounting process, and the application of the conceptual framework in such process in order to develop their abilities to complete the accounting cycle, ending with the preparation and presentation of financial statements. This course will also try to equip the students with the knowledge and ability to understand and analyse the information communicated through the Financial Statements.

Course Learning Outcomes (CLOs): After successful completion of this course, students will be able to:

CLO-1	Explain the fundamental concepts, scope, functions, and historical development of accounting, including the users and purposes of accounting information.
CLO-2	Describe the conceptual framework of financial accounting, including objectives, qualitative characteristics, and operational guidelines as outlined by the FASB.
CLO-3	Apply the double-entry system and accounting equation to analyze and record business transactions accurately using appropriate account titles and classifications.
CLO-4	Demonstrate the accounting cycle by preparing journal entries, posting to ledgers, compiling trial balances, and rectifying common accounting errors.
CLO-5	Prepare adjusting entries and complete the accounting process, including adjusted trial balances, worksheets, closing entries, and reversing entries.
CLO-6	Account for merchandising operations using both periodic and perpetual inventory systems, and apply inventory costing methods such as FIFO, LIFO, and weighted average.
CLO-7	Differentiate between manual and computerized accounting systems and utilize special journals and subsidiary ledgers to record various business transactions.
CLO-8	Construct a complete set of financial statements (Income Statement, Statement of Owner's Equity, Balance Sheet, and Cash Flow Statement) for sole proprietorships.
CLO-9	Analyze financial statements using horizontal, vertical, and ratio analysis to assess the liquidity, profitability, solvency, and operational efficiency of a business.

Course Contents

SL	Topic	Teaching Learning Strategy	CLOs
1.	Accounting – The Language of Business: Definition and Scope of Accounting, Its role and Functions, History of Accounting, Purpose and Nature of Accounting Information- Users of Accounting Information. Branches of Accounting: Nature of Business and Accounting.	Lecture, Assignment	CLO-1
2.	Conceptual Framework for Financial Accounting: FASB Conceptual Framework for Financial Accounting-First Level: Basic Objectives (SFAC-1); Second Level: Qualitative Characteristics of Accounting Information (SFAC-2); Third Level: Operational Guidelines.	Lecture, Assignment	CLO-2
3.	The Accounting Process: Double-Entry Accounting System (vis-à-vis Incomplete) System. Accounting Equation – Effects of Transactions on the Accounting Equation. The Account-Classification of Accounts-Selection of Account Titles-Chart of Accounts-Coding-Rules of Debit and Credit-Balancing and Normal Balance-Recording (Bookkeeping) Aspect of Accounting Cycle: Documentary Evidence and Identification, Analysis, and Recording of Transactions and Other Events-Journalization-Posting to the Ledger-Preparation of Trial Balance-Limitations of Trial Balance, Errors and their Rectification.	Lecture and Assignment	CLO-3 CLO-4
4.	The Adjustment Process and Completing the Accounting Process: Key aspects of the Accrual basis of accounting, Cash accounting and Break-up basis of accounting-Adjustments-Adjusted Trial Balance-Preparation of Work Sheet- Closing Entries- Post-Closing Trial Balance-Reversing Entries.	Lecture and Group Discussion	CLO-5
5.	Merchandising Operations and Accounting System: Merchandising Operations and Classifying Inventory-Purchases, Sales, Other Use or Loss and Returns of Merchandise Inventory- Periodic and Perpetual Inventory Systems and Journal Entries-Specific Identification Method and Inventory Cost Flow Assumption (FIFO, LIFO and Average Cost).	Lecture and Case Study	CLO-6
6.	Accounting Systems and Special Ledgers: Manual and Computerized Accounting Systems and their effectiveness-The Voucher System-General Ledgers and Subsidiary Ledgers:	Lecture, Assignment and Quiz	CLO-7

	General Ledger Control Accounts and Subsidiary Ledger Individual Accounts. Special Journals: Advantages of Special Journals-Cash Receipts Journal-Sales Journals-Purchase Journal-Cash Payments Journal and General Journal.		
7.	Financial Statements: Idea on a Complete Set of Financial Statement. Purpose and interrelationship of the Financial Statement. Importance, Limitations & Preparation of Financial Statements. Supplementary Statements/Schedules. Preparation of Financial Statements for Sole-Proprietorship Organizations.	Lecture and Workshop	CLO-8
8.	Financial Statement Analysis: Horizontal analysis and vertical analysis of comparative financial statements; Preparation and use of common-size financial statements; Ratio Analysis-Basic Ratios of Liquidity, Activity, Profitability, and Solvency.	Lecture and Presentation	CLO-9

List of Books

Kermit, D. L. (2007). *Fundamental Accounting Principles*, McGraw-Hill

Meigs, W., Haka & Beltner. (2021). *Financial Accounting* (18th ed.). McGraw Hill Inc.

Needles, B. E., Powers, M., & Crosson, S. V. (2014). *Principles of Accounting* (12th ed.). Houghton Mifflin Company.

Smith, K. F. & Skousen, J. M., (2016). *Intermediate Accounting, Comprehensive Volume* (12th ed.). South-western Pub Co.

Weygandt, J. J., Kimmel, P. D., & Kieso, D. E. (2018). *Accounting Principles IFRS Version*. John Wiley & Sons Inc.

Mapping CLO with PLO

PLOs CLOs	PLO-1	PLO-2	PLO-3	PLO-4	PLO-5	PLO-6	PLO-7	PLO-8	PLO-9
CLO-1	√					√			
CLO-2	√					√			
CLO-3	√							√	
CLO-4	√							√	
CLO-5	√							√	
CLO-6	√	√							
CLO-7	√							√	
CLO-8	√						√		
CLO-9	√				√	√			

Paper Code	212503	Marks:100	Credits: 4	Class Hours: 60
Paper Title	Introduction to Business			

Objectives

The principal objective of this course is to convey the fundamental knowledge of business to students. The specific objectives of this course are to:

- 1) have a complete idea of business in a holistic manner;
- 2) be familiar with all of the characteristics and factors of business, as well as the economic environments in which they operate;
- 3) be able to apply what you've learned in real-world situations; use examples from current events, as well as more formal case studies, to apply, illustrate, and discuss different aspects of business.

Course Learning Outcomes (CLOs): Students should be able to know or do after completing the course:

CLO-1	Explain the meaning, characteristics, nature, and various components of business, including the prerequisites and different forms of ownership in Bangladesh.
CLO-2	Describe and compare different forms of business ownership (Sole Proprietorship, Partnership, Joint Stock Company, Cooperative Society, State Enterprise, and Franchising), including their formation, advantages, disadvantages, and legal structures.
CLO-3	Analyze the rights, duties, and liabilities of different types of business owners and partners, and assess legal documents and processes related to business formation and dissolution in Bangladesh.
CLO-4	Evaluate the procedures and strategic considerations for starting a new business, including opportunity analysis, idea generation, and strategy selection.
CLO-5	Identify and describe the structure and role of financial markets and institutions in Bangladesh, including banks, non-bank financial institutions, microfinance institutions, insurance, and stock exchanges.

Course Contents

SL	Topic	Teaching Learning Strategy	CLOs
1.	Concepts in Business: Meaning and Definition of Business-Functions, Characteristics and Nature of Business-Components of Business-Pre-Requisites of Business-Owner of a business-The Payoff of Business ownership, The Winning hand of Ownership, Characteristics of successful Business Owner, Form of Business Ownership in Bangladesh, One Person Company.	Lecture, Assignment	CLO-1
2.	Sole Proprietorship: Meaning and Definition-Characteristics and Nature of Sole Proprietorship-Advantages and Disadvantages-Formation of Sole Proprietorship.	Lecture, Assignment	CLO-2 CLO-3
3.	Partnership: Meaning and Definition-Characteristics and Nature of Sole Proprietorship-Advantages and Disadvantages-Kinds of Partners and Partnership-Partnership Agreement-Provision of Partnership Deed-Rights and Duties of Partners-Liabilities of Partners-Formation of partnership-Dissolution of Partnership Firm.	Lecture and Presentation	CLO-2 CLO-3
4.	Joint Stock Companies (JSC): Meaning and Definition-Characteristics and Features of JSC-Advantages and Disadvantages of JSC-Public Vs. Private Limited Company-Formation of a JSC in Bangladesh-Legal Documents Issued by A Company: Memorandum, Articles, Prospectus-Company Meeting: Shareholders' Meetings, Directors' Meeting-Share Capital-Winding up of Company, Public Limited Company (PLC)	Lecture and Workshop	CLO-2 CLO-3
5.	Cooperative Society: Meaning and Definition-Principles and Characteristics of Cooperative-Advantages and Disadvantages of Cooperative-Types of Cooperative Society-Formation of Cooperative Society in Bangladesh-Winding up of Cooperative Society.	Lecture and Group Discussion	CLO-2 CLO-3
6.	State Enterprises: Meaning and Definition-Historical Background of State Enterprises-Importance, Successes and Failures of State Enterprises-Proposals for Improvement.	Lecture and Assignment	CLO-2 CLO-3
7.	Franchising: Meaning and Definition-Factors influencing Franchising-Types of Franchising Agreement. Pros and cons of franchising.	Lecture, and Assignment	CLO-2 CLO-4
8.	Business Start-Up: Identifying Startup Ideas, Creating a New Business from Search, Finding Startup Ideas, Using Internal and External Analysis to evaluate an opportunity, Selecting Strategies that capture opportunities.	Lecture and Group Discussion	CLO-4

9.	Financial Markets and Institutions in Bangladesh: Bank, Non-Banking Financial Institutions, Micro Finance Institute, Insurance, Stock Exchanges.	Lecture and Assignment	CLO-5
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List of Books

Joseph T., & Straub, R. F. (1985). *Introduction to Business*. Kent: Kent Publishing Company.

Madhura. Z. (2024). *Financial Market and Institutions* (14th ed.). Cengage Learning.

Nickels, W.G., McHugh, J.M., & McHugh, S.M. (2021). *Understanding Business*. McGraw-Hill.

Skinner S.J., & Ivancevich J.M., (1992). *Business for the 21st century*. Homewood, IL: R.D. Irwin.

Mapping CLO with PLO

PLOs CLOs	PLO-1	PLO-2	PLO-3	PLO-4	PLO-5	PLO-6	PLO-7	PLO-8	PLO-9
CLO-1						√	√		
CLO-2						√	√		
CLO-3						√	√		
CLO-4					√	√	√		√
CLO-5	√				√	√	√	√	

Paper Code	212505	Marks:100	Credits: 4	Class Hours: 60
Paper Title	Principles of Marketing			

Course Objective

Marketing being the most important aspect of business management, an insight into the various aspects of marketing are essential for students of accounting. The main aim of offering this core course is to expose the students of accounting to the concepts, principles, and fundamentals of marketing. Some specific course objectives are:

- Marketing concept and environment
- Identifying and understanding the customer segmentation, targeting, positioning and consumer behavior
- The use of marketing research and information systems
- The marketing mix – product, branding, pricing, distribution, channel issues and promotion
- Competitive forces and marketing planning
- An introduction to marketing ethics and social responsibility

Course Learning Outcomes (CLOs)

After completing this course, students will be able to:

CLOs	Description
CLO-1	Explain the core concepts of marketing, marketing management philosophies, and the elements of the marketing mix.
CLO-2	Analyze the influence of micro and macro environmental factors on marketing decisions and evaluate strategic responses to the marketing environment.
CLO-3	Describe the consumer buying behavior process, including decision-making stages, behavioral models, and influencing factors.
CLO-4	Apply segmentation, targeting, and positioning strategies to real-world marketing scenarios and recommend appropriate positioning approaches.
CLO-5	Evaluate product and service marketing strategies including new product development, product life cycle, service characteristics, and branding strategies.
CLO-6	Illustrate pricing strategies and decisions based on market objectives, cost structures, and competitive dynamics.
CLO-7	Analyze distribution channel structures, functions, and strategies including retailing and wholesaling.
CLO-8	Demonstrate understanding of the promotional mix and its components including advertising, sales promotion, personal selling, public relations, and direct marketing.
CLO-9	Examine the role of digital marketing in modern marketing practices, including affiliate marketing, SEO, social media, mobile, and email marketing.

Course Content

SL	Topic	Teaching Learning Strategy	CLOs
1.	Introduction: Meaning and Definition, Core concepts, Marketing management philosophies. Concepts of Marketing mix.	Lecture, Assignment	CLO-1
2.	Marketing Environment: Definition, influence of micro and macro environment on marketing. Responding to the marketing environment.	Lecture, Assignment	CLO-2
3.	Consumer Buying Behavior: Definition, characteristics and model of consumer behavior. Factors affecting consumer behavior. Types of buying decision behavior. Stages in the buying decision process.	Lecture and Group Discussion	CLO-3
4.	Market Segmentation, Targeting and Positioning: Definition, benefits, and bases of market segmentation. Market Targeting, Evaluating and selecting target markets. Market Positioning, Strategies for market positioning, choosing a positioning strategy	Lecture and Case Study	CLO-4
5.	Product and Service: Definition of Product, Levels, Classification, Consumer product and Industrial Product, New product development process, product life cycle. Meaning of Service, Characteristics of Service -Marketing Strategies for Service Firms. Branding strategy: building strong brands	Lecture and Assignment	CLO-5
6.	Price: Definition, Objectives, Pricing considerations, General approaches of pricing.	Lecture and Group Discussion	CLO-6
7.	Place/Distribution: Definition, Objectives, Functions, Importance, Types, Channel Selection, Retailing, Wholesaling.	Lecture, and Assignment	CLO-7
8.	Promotion: Meaning, Importance, Objectives, Promotion mix-advertising, personal selling, sales promotion, public relations, Direct Marketing, Online Marketing.	Lecture and Presentation	CLO-8
9.	Digital Marketing: Concepts, Affiliate marketing, social media marketing, Search Engine Marketing, Mobile and E-mail Marketing.	Lecture, Case Study	CLO-9

List of Books

Chaffey, D., & Smith, P. R. (2013). *E-marketing Excellence: Planning and Optimizing Your Digital Marketing* (4th ed.). Taylor & Francis, London.

Kotler, P. (2015). *Marketing Management: Analysis, Planning, Implementation and Control*. Prentice Hall.

Kotler, P. & Armstrong, G. (2017). *Principles of Marketing*. London Prentice Hall.

Stanton, W. J. (2021). *Fundamentals of Marketing* (17th ed.). McGraw Hill.

Mapping CLO with PLO

PLOs CLOs	PLO-1	PLO-2	PLO-3	PLO-4	PLO-5	PLO-6	PLO-7	PLO-8	PLO-9
CLO-1					√				
CLO-2					√	√			
CLO-3					√				
CLO-4					√				
CLO-5					√				
CLO-6					√	√			
CLO-7					√				
CLO-8					√				
CLO-9					√				

Paper Code	212507	Marks:100	Credits: 4.00	Class Hours: 60
Paper Title	Principles of Finance (In English)			

Course objectives

The objective of this course is to provide students with the basic concepts in finance, analytical tools used in business finance, sources, and uses of finance. The course would assist in understanding the basic principles of inflow and outflow of funds and their applications and also help to quantify relevant risks and returns. This course will further encourage the students to proceed towards the advanced issues in financial management.

Course Learning Outcomes (CLOs)

After successful completion of this course, students will be able to:

CLO-1	Explain the fundamental concepts, goals, and functions of business finance and financial strategy.
CLO-2	Analyze the financial environment, including financial markets, institutions, and government policies.
CLO3	Apply the concept of time value of money to value different financial instruments and cash flows.
CLO-4	Evaluate various types of financial risk and return using quantitative risk assessment tools.
CLO-5	Compute the cost of different sources of capital and determine a firm's weighted average cost of capital (WACC).
CLO-6	Illustrate the use and implications of CAPM, APM, and related pricing models in financial decision-making.
CLO-7	Identify and differentiate among various sources of short-term, mid-term, and long-term financing.
CLO-8	Apply capital budgeting techniques such as NPV and IRR to make investment decisions.
CLO-9	Analyze a firm's capital structure and assess the impact on EPS using EBIT-EPS approach.
CLO-10	Explain the roles and operations of financial institutions in Bangladesh and globally.

Course Contents

SL	Topic	Teaching Learning Strategy	CLOs
1.	Introduction: Goals and Functions of Business Finance; The Financial Manager; Objectives of Finance; The Financial Strategy Process; Impact of Financial Markets and Other External Factors on a Business's Financial Strategy; Functions of Business Finance; Functions of the financial officers; Goal of Finance: Profit Maximization vs. Shareholders' Wealth maximization; Ethics in Business Finance; The Agency Problems.	Lecture and Assignment	CLO-1
2.	Financial Environment: Markets and Institutions: The Financial Markets, Types of Markets: Primary Markets vs. Secondary Markets; Financial Institutions; The Stock Market; Fiscal Environment; Corporate Taxation; Government Investment Policy.	Lecture and Assignment	CLO-2
3.	Concepts in Valuation: Time Value of Money; Time Lines; Future Value and Compounding; Present Value and Discounting; Opportunity Cost Rate; Fair/Equilibrium Value; Net Present Value (NPV); Future and Present Values of an Annuity; Perpetuities—Amortized Loan and Amortization Schedule; Market Value, Economic Value.	Lecture and Group Discussion	CLO-3
4.	Concepts of Return and Risk: Uncertainty, Risk and Return; Risk-free and Risk-adjusted Return; Bond Returns; Return from a Stock Investment; Types of Risks: Business Risk and Financial Risk, Total Risk and Specific Risk, Diversifiable Risk and Systematic Risk, Single-Asset Risk and Portfolio Risk; Risk Measurement: Variance, Standard Deviation and Coefficient of Variation.	Lecture and workshop	CLO-4
6.	Cost of Capital: Concepts of Cost; Comparison; Costs of Different Financing sources; Cost of Debt; Cost of Irredeemable Debentures; Cost of Redeemable Debentures; Cost of Bank Loans and Overdrafts; Cost of Preferred Stock; Cost of Common Equity; Cost of Retained Earnings; CAPM Approach; Bond: Yield-plus-Risk - Premium Approach, Dividend-Yield-plus-Growth-Rate; Discounted Cash Flow (DCF) Approach; Cost of Newly Issued Common Stock or External Equity; Weighted Average Cost of Capital (WACC); Rationale for WACC; Marginal Cost of Capital (MCC); MCC Schedule, Break Points; Factors affecting the Cost of Capital, Different Uses of Cost of Capital. Capital Structure and its Costs.	Lecture and Case Study	CLO-5
7.	Pricing Models: Capital Assets Pricing Model Assumption, Expected Return and Risk on a Risky Asset, the Security Market Line, Arbitrage Pricing Model (APM), Assumptions of the	Lecture, and Assignment	CLO-6

	Theory, The CAPM and APM, A Multifactor APM, Empirical Tests of the APM.		
8.	Financing Decision: a) Short-term Financing: Characteristics and sources of short-term finance, Spontaneous sources of finance, Formal financing, Secured financing and Unsecured financing. b) Mid-term financing, Characteristics and sources of mid-term finance, c) Long-term Financing: Characteristics and sources of long-term finance, equity financing, Preference share financing and debt financing. Concepts of Warranties, Covenants, Guarantees; Financing Problems of Small Firms.	Lecture and Group Discussion	CLO-7
9.	Investment Decision: Considerable Factors in investment decision or Capital Budgeting; The Capital Budgeting Decision Process-The relevant cash flows, finding initial investment, finding the operating cash inflows, finding the terminal cash flow, summarizing the relevant cash flows. Ways of evaluating investment proposal or Project Appraisal; Methods used for Capital Budgeting- Pay Back Period, Net Present Value (NPV), Internal Rate of Return (IRR), and Comparing NPV and IRR. etc.	Lecture and Presentation	CLO-8
10.	Capital Structure Decision: The firm's capital structure-The EBIT-EPS approach to capital structure, Choosing the Optimal Capital Structure.	Lecture and Case Study	CLO-9
11.	Financial institutions: Functions and performances of financial institutions in Bangladesh and in the world.	Lecture and Assignment	CLO-10

List of Books

- Brealey, R., Myers, S., Allen, F., & Edmans, A. (2025). *Principles of Corporate Finance* (14th ed.). McGraw-Hill.
- Gitman, L. J. (2015). *Principles of Managerial Finance* (14th ed.). Pearson.
- Weston, J. F., & Brigham, E. F. (2016). *Essentials of Managerial Finance* (14th ed.). Thomson South-Western.

Mapping CLO with PLO

PLOs CLOs	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CLO1	√				√	√	√		
CLO2					√	√			
CLO3					√				
CLO4					√				
CLO5					√				
CLO6					√				
CLO7					√		√		
CLO8		√			√				
CLO9					√				
CLO10	√				√	√	√		

Paper Code	212509	Marks:100	Credits: 4	Class Hours: 60
Paper Title	Principles of Management			

Course Objective

The objective of the course is to provide an understanding of basic concepts, principles and practices of management. The aim is to inculcate the ability to apply multifunctional approaches to organizational objectives.

- To enable the students to study the evolution of Management,
- To study the functions and principles of management.
- To learn the application of the principles in an organization.
- To enable effective and remove barriers to communication in the organization
- To study the system and process of effective control in the organization

Course Learning Outcomes (CLOs)

After completing this course, students will be able to:

CLOs	Descriptions
CLO-1	Describe the fundamental concepts, functions, and career prospects of management, including its scope, evolution, and global context.
CLO-2	Compare and contrast classical, behavioral, quantitative, and contemporary schools of management thought.
CLO-3	Explain the planning process, its types, importance, limitations, and techniques to make planning effective.
CLO-4	Analyze the organizing function, including authority, responsibility, departmentation, delegation, and organizational structure.
CLO-5	Explain and apply the staffing function, including recruitment, selection, training, promotion, and managerial development tools.
CLO-6	Assess different leadership styles and theories and their applicability in various organizational contexts.
CLO-7	Explain the principles and techniques of coordination and its role in integrating management functions.
CLO-8	Evaluate major theories of motivation and apply motivational techniques in managerial settings.
CLO-9	Discuss the process, types, and techniques of controlling and evaluating the features of an effective control system.
CLO-10	Identify and describe specialized areas of management such as HRM, strategic management, and project management.
CLO-11	Examine the characteristics and challenges of management practices in Bangladesh's public and private sectors.

Course Contents

SL	Topic	Teaching Learning Strategy	CLOs
1.	Introduction to Management: Meaning; Scope; Importance; History of Management, Principles; Rules of Management; Is Management Science or Art? Is Management a Profession? Management vs. Administration, Areas of Management, Functions of Management: Planning, Organizing, Staffing, Leading, Motivating and Controlling; Management as a Career; Global Management.	Lecture and Assignment	CLO-1
2.	Schools of Management: History of Management; Early Contributions to Management; Various Approaches to Management: Taylor's Scientific Management; Functional or Process Approach; Fayol's Principles of Management; Human Relations; Behavioral Science Approach; Quantitative Approach; Systems Approach; Contingency Approach; Other Contemporary Approaches to Management.	Lecture and Assignment	CLO-2
3.	Planning: Meaning; Importance; Nature; Types; Steps; Factors Affecting Planning; Planning Techniques; Limits of Planning; Making Planning Effective.	Lecture and Group Discussion	CLO-3
4.	Organizing: Meaning; Nature; Importance; Span of Management; Departmentation, Authority and Responsibility; Types of Organization at Structure; Delegation of Authority; Departmentalization of Authority; Problems in Organizing.	Lecture and Assignment	CLO-4
5.	Staffing: Meaning; Purpose; Importance; Recruitment; Selection; Training; Promotion; Developing Managers; Using Manager Inventory Chart.	Lecture and Case Study	CLO-5
6.	Leading: Meaning; Importance; Ingredients of Leadership; Styles of Leadership; Autocratic; Democratic and Free-Reign-Likers' System; Managerial Grid Approach, Theories of Leadership.	Lecture and Assignment	CLO-6
7.	Coordination: Meaning, Features, Importance, Principles and Techniques.	Lecture	CLO-7
8.	Motivating: Meaning; Motivation and Motivator; Importance; The Need-want-satisfaction Chain; Theory of Motivation; McGregor's Theory X and Theory Y; Maslow's Need Hierarchy Theory; Herzberg's Two Factors Theory; Vroom's Expectancy Theory; McClelland's Achievement; Motivation Theory; Various Motivation Techniques.	Lecture and Group Discussion	CLO-8
9.	Controlling: Meaning, Nature; Importance; Controlling process; Requirements of an Effective Control System; Controlling	Lecture	CLO-9

	Techniques.		
10.	Specialized Areas of Management: Personnel or Human Resource Management (HRM), Strategic and International Management (SIM), Small Business (SBM), Project Management, Marketing Management, Financial Management, etc.	Lecture and Assignment	CLO-10
11.	Management in Bangladesh: Private and Public Sectors' Managements, Efficiencies and Effectiveness, Public Corporations' Management, etc.	Lecture and Presentation	CLO-11

List of Books

Griffin, R. W. (2014). *Management* (12th ed.). A.I.T.B.S. Publishers and Distributor.

Koontz, H., & Weihrich, H. (2010). *Management* (9th ed.). Mc. Graw-Hill Book Company.

Stronner, J. A. F., & Freeman, R. E. (2014). *Management* (6th ed.). Prentice Hall of India Private Limited.

Mapping CLO with PLO

PLOs CLOs	PLO-1	PLO-2	PLO-3	PLO-4	PLO-5	PLO-6	PLO-7	PLO-8	PLO-9
CLO-1							√		
CLO-2							√		
CLO-3					√				
CLO-4									
CLO-5									
CLO-6									
CLO-7									
CLO-8									
CLO-9		√			√	√			
CLO-10					√	√			
CLO-11					√	√	√		

Paper Code	212511	Marks:100	Credits: 4.00	Class Hours: 60
Paper Title:	Microeconomics			

Course Objective

The purpose of this course is to provide you with a basic understanding of the principles of microeconomics. Some specific course objectives are:

- Introduce tools and methods of economic analysis that will serve as the basis for other courses in economics such as Macroeconomics, Economic Analysis, Managerial Economics, and Economic Resources.
- Provide non-specialist economics students with a good introduction to the fundamental principles of microeconomics.
- Familiarize students with the concepts to which they are introduced to facilitate analysis of the functioning of the microeconomy.

Course Learning Outcomes (CLOs)

After completing this course, students will be able to:

CLOs	Descriptions
CLO-1	Explain fundamental economic concepts including scarcity, opportunity cost, the production possibilities frontier, and distinguish between microeconomics and macroeconomics.
CLO-2	Describe and analyze the laws of demand and supply, including shifts and movements, and determine market equilibrium.
CLO-3	Evaluate the effects of different market regulations (e.g., price ceilings, floors, quotas, and taxes) on consumer and producer surplus.
CLO-4	Calculate and interpret various elasticities of demand and supply, and analyze their determinants and implications for decision-making.
CLO-5	Apply utility theory, including marginal utility and indifference curve approaches, to explain consumer behavior and derive demand curves for different types of goods.
CLO-6	Analyze the theory of production and cost, including production functions, returns to scale, cost curves, and optimization of production levels.
CLO-7	Compare different market structures and determine price and output levels under perfect and imperfect competition, including monopolistic and oligopolistic settings.
CLO-8	Explain the theory of distribution and apply factor pricing theories for wages, rent, interest, and profit.

Course Contents

SL	Topic	Teaching Learning Strategy	CLOs
1.	Basic Concepts and Ideas: Definition and Relevance; Positive and Normative Economics; Scarcity; Opportunity Cost; Production Possibilities Frontier; Preliminary Introduction to Great Schools of Economic Thoughts: Classical, Neo-Classical, Keynesian, Marxist; Difference between Microeconomics and Macroeconomics.	Lecture and Assignment	CLO-1
2.	Demand, Supply and Equilibrium Analysis: Law of Demand; Ceteris Paribus Assumption; Demand Equation; Shift of Demand Curve; Movement along the Demand Curve; Law of Supply; Supply Equation; Shift of Supply Curve; Movement along the Supply Curve; Market Equilibrium.	Lecture and Assignment	CLO-2
3.	Market Regulation: Price Ceiling, Price Floor, Quota, Tax; Consumer Surplus; Producer Surplus; Change in Consumer Surplus and Producer Surplus after Regulation.	Lecture	CLO-3
4.	Elasticity: Elasticity of Demand, Factors Affecting Elasticity of Demand; Price Elasticity; Determinants of Demand Elasticity; Computation and Interpretation of Elasticity of Demand; Point Elasticity and Arc Elasticity of Demand; Income Elasticity and Cross Price Elasticity of Demand; Elasticity of Supply; Computation and Interpretation of Supply Elasticity; Determinants of Elasticity of Supply.	Lecture and Group Discussion,	CLO-4
5.	Utility Theory: The Utility Approach: Basic Assumptions of Utility Approach; Marginal, Average and Total Utility and their Relationship; Marginal Utility and Price; Law of Diminishing Marginal Utility; Law of Equi-Marginal Utility; The Indifference Curve Approach; Basic Assumptions of IC Approach; Characteristics of Indifference Curve; Indifference Curve and Indifference Map; Budget Line and its Properties; Marginal Rate of Substitution and Price Ratio; Price Effect, Income Effect and Substitution Effect; Shape of the Demand Curve for Normal, Inferior and Giffen Commodity Types.	Lecture and Assignment	CLO-5
6.	Theory of Production and Cost: Factors of Production; Production Function; Law of Diminishing Returns; Isocosts and Isoquant; Marginal Rate of Technical Substitution; Cost Ratios and Optimization of Production Level; Short-Run Production Function and the Law of Variable Proportion; Economies and Diseconomies of Scale (Internal and External); Long-Run	Lecture and Case Study	CLO-6

	Production Function and the Law of Returns to Scale; Total Product and Marginal Product; Variable and Fixed Costs; Average, Marginal and Total Costs and Shapes of Various Cost Curves; Short-Run and Long-Run Cost Curves; Relationship between Marginal Cost and Price level.		
7.	Market Structure and Determination of Equilibrium Price and Output Levels: Definition and Structure of Market; Characteristics of Different Markets; Perfectly Competitive Markets and Imperfectly Competitive Markets (Monopoly, Duopoly, Oligopoly and Monopolistic Markets); Determination of Equilibrium Price and Output in Different Markets; Price Discrimination and Distortions; Anti-Trust Laws.	Lecture and Assignment	CLO-7
8.	Theory of Distribution: Factors of Production and Factor Pricing: Wage, Rent, Interest, Profit-Theories of Factor Pricing: Wage Determination According to Neoclassical Theory.	Lecture and Presentation	CLO-8

List of Books

Henderson, J. V., & Poole, W. (2009). *Principles of Microeconomics*. D.C Health & Company.

Jhingan, M. L. (2009). *Microeconomics theory* (7th ed.). Vikas Publishig House Pvt. Ltd.

Ruffin, R. J., & Gregory, P. R. (2007). *Principles of Microeconomics* (7th ed.). Scott Ferguson & Company.

Samuelson, P., & Nordhaus, W. (2009). *Economics* (19th ed.). McGraw-Hill Book Company.

Mapping CLO with PLO

CLOs \ PLOs	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CLO1					√		√		
CLO2					√				
CLO3			√		√	√			
CLO4		√			√				
CLO5					√				
CLO6		√			√				
CLO7					√				
CLO8					√				

Course Code:	219901	Marks: 100	Credits: 4
Course Title:	History of Bangladesh: Language, Culture, and Identity		Hours: 60

Course Objective:

This course is designed to help undergraduate students from diverse academic backgrounds develop a comprehensive and nuanced understanding of the historical development of Bangladesh, with a particular focus on its language, culture, and identity. By critically examining a variety of historical events, socio-political movements, and cultural shifts from ancient times to the contemporary period, students will have the opportunity to trace the evolution of the Bengali nation. The course aims to foster informed citizenship through an exploration of the Liberation War, identity formation processes, cultural heritage, the lives and contributions of key political figures, and the roles of ethnic minorities. Ultimately, the objective is to equip learners with the intellectual tools necessary to contextualize current national debates and to recognize the role of youth and globalization in shaping the future of Bangladesh.

Course Learning Outcomes:

At the end of the course, learners will be able to:

CLO 1: Recall key historical events, dates, movements, personalities, and cultural developments that contributed to the emergence of Bangladesh from the pre-colonial period to the present day.

CLO 2: Demonstrate an understanding of the socio-political, linguistic, and cultural influences that shaped Bengali identity and nationalism, emphasizing the Language Movement, Liberation War, and subsequent democratic uprisings.

CLO 3: Apply their historical and cultural understanding to interpret contemporary national issues and debates relating to identity, political reform, and cultural transformation in Bangladesh.

CLO 4: Analyze how historical events, political ideologies, and social changes are interconnected in shaping the current socio-political landscape of Bangladesh, with a particular emphasis on the roles of movements, minorities, and the youth.

Course Contents

Course contents	Teaching Learning Strategy	CLOs
1. Pre-colonial Era - Life and Culture of the People in Ancient Bengal - Bengal Under Muslim Rulers: Society, Culture, and Religion - Role of the Sufis in Preaching Islam and Impacts of Sufism on the Bengali Society - Bengali Society and Culture in the Writings of Foreigners	Interactive lectures	CLO 1-2
2. Colonial Era (18th and 19th Century) - The Battle of Plassey (1757) and the Beginning of British Colonialism - Bengal Renaissance - Reforms in Hindu Society - New Forms in Bengali Literature and Culture - The Muslim Response to Western Education	Interactive lectures, reading, and assignments	CLO 1-2
3. Colonial Era (First Half of the 20th Century) - Partition of Bengal (1905) - Hindu-Muslim Disagreements - Formation of the All India Muslim League (AIML) - Muslim Shahitya Samaj - Buddhir Mukti Andolan: The Urge for Rational Thinking in Bengali Muslim Society - Growth of Religion-based Identity - Politics of Hindutva and the Two-Nation Theory - Spread of Communalism in Society - The Partition of India and Bengal	Interactive lectures and group discussions	CLO 2-3
4. Post-Partition Era (1947-1971) - Language Movement - Political, Economic, and Cultural Aspects - Growth of Vernacular Nationalism - Cultural Activism	Interactive lectures and group discussion	CLO 2-3
5. Changing Bengali Identity - The Evolution of Bengali Identity in the Context of Language, Culture, and Religion - From Ancient Times to the Present - The Role of the Bengali Language in Shaping Identity - The Language Movement of 1952 and Its Long-term	Interactive lectures and thematic assignments	CLO 2-3

- Impact on National Consciousness - The Influence of Religion on Bengali Identity - The Impact of Socio-political Movements on Identity Formation - The Liberation War of 1971 - Contemporary Debates on Bengali Identity - The Role of Youth in Redefining Identity - The Influence of Globalization		
6. Liberation Movement of 1971 and Mass Uprising till 2024 - The Political and Economic Exploitation of East Pakistan by West Pakistan - Six (6) Points Movement, Uprising of 1969 - The 1970 General Elections - The Non-cooperation Movement and the Declaration of Independence - The Role of AK Fazlul Haque, Huseyn Shaheed Suhrawardy, Maulana Bhashani, Sheikh Mujibur Rahman and Ziaur Rahman - The Liberation War of 1971 - Genocide and Resistance - The Role of the Mukti Bahini - Post-independence Challenges - Nation-building - Political Instability - Mass Uprisings and Democratic Movements - The Anti-autocracy Movement of the 1980s - The 1990s Movement for Democracy and Afterwards - The 2024 Movements for Political and Social Reforms	Interactive lectures, group discussions, and thematic assignments	CLO 1 CLO 3-4
7. History of Other Ethnic Groups - The Indigenous Communities of Bangladesh - Historical Presence - Cultural Practices - Land Rights and Cultural Assimilation - Contributions and Sacrifices - Political Representation of Ethnic Minorities	Interactive lectures and group discussions	CLO 4
8. Cultural Heritage and Modern Transformations - The Evolution of Bengali Culture - From Ancient Traditions to Modern Expressions - The Role of Literature, Music, and Art in Shaping Bengali Identity - Contributions of Rabindranath Tagore, Kazi Nazrul Islam, and Other Cultural Icons - The Impact of Globalization on Bengali Culture	Interactive lectures, documentary screening, and thematic assignments	CLO 1-4

• The Revival of Traditional Arts • The Role of Youth in Cultural Innovation Urbanization • Environmental Changes • The Commodification of Culture		
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List of Books

- Ahmed, M. (1979). *Bangladesh: The constitutional quest for autonomy*. The University Press Limited.
- Ahmed, R. (1981). *The Bengal Muslims 1871-1906: A quest for identity*. Oxford University Press.
- Alavi, H. (1972). *The state in post-colonial societies: Pakistan and Bangladesh*. In K. Gough & I. P. Sharma (Eds.), *Imperialism and revolution in South Asia* (pp. 145-178). New York, NY: Monthly Review Press.
- Bernier, F. (2023). *Travels in the Mogul Empire: A.D. 1656-1668*. Chennai: Atlantic Publishers.
- Bleie, T. (2005). *Tribal peoples, nationalism, and the human rights challenge*. The Adivasis of Bangladesh. University Press Limited.
- Bosc, S. (2011). *Dead reckoning Memories of the 1971 Bangladesh war*. Hurst & Company.
- Eaton, R. M. (1996). *The rise of Islam and the Bengal frontier. 1204-1760*. Berkeley: University of California Press.
- Gilmour, D. (2019), *The British in India: Three centuries of ambition and experience*. London. Penguin.
- Habib, L. (1982). *Cambridge economic history of India*. Cambridge. Cambridge University Press.
- Halim, S., Amanullah, A. S. M., & Nasir, R. I. (2024). *Society and sociology in Bangladesh: A South Asian perspective*. The University Press Limited.
- Hashmi, T. (2021). *Fifty Years of Bangladesh, 1971-2021 Crises of Culture, Development, Governance and Identity*. Switzerland: Palgrave Macmillan.
- Huq, M. E. (1975). *History of Sufism in Bengal*. Dhaka. Bangladesh Asiatic Society
- Husain, I. (2014). *Karl Marx on India*. New Delhi: Tulika Books.
- Jahan, R. (1972). *Pakistan: Failure in national integration*. Columbia University Press.

- Maniruzzaman, T. (1988). *The Bangladesh revolution and its aftermath* (2nd ed.). Dhaka: University Press Limited. (Original work published 1980)
- Mascarenhas, A. (1986). *Bangladesh: A legacy of blood*. London: Hodder and Stoughton.
- Rashid, H. O. (2015). *The foreshadowing of Bangladesh: Bengal Muslim League and Muslim politics* (3rd ed.). Dhaka: University Press Limited.
- Roy, A. (1984). *The Islamic syncretistic tradition in Bengal*. Princeton, NJ: Princeton University Press.
- Sen, A. (2006). *Identity and violence: The illusion of destiny*. W. W. Norton & Company.
- Umar, B. (2022). *The Emergency of Bangladesh: A History of East Pakistan*. Dhaka: Bangla Gobeshona.

Course Code	219903	Marks: 75	Credits: 3
Course Title:	Information and Communication Technology		

Course Objectives:

The main objective of the course is to develop students' understanding and skills in using, managing, and applying technology to solve problems and enhance various aspects of life and work. Key areas of focus include understanding ICT systems, software, hardware, networks, and their applications.

Course Learning Outcomes: The student will be able to:

CLO 1	Explain foundational ICT concepts, including the information processing cycle.
CLO 2	Operate standard computer hardware and software systems effectively.
CLO 3	Use office productivity tools (Word, Excel, PowerPoint) for academic and professional tasks.
CLO 4	Apply safe internet practices and use internet tools for communication and information retrieval.
CLO 5	Understand and explain the concepts of Data Analytics, Artificial Intelligence (AI), and Machine Learning (ML)
CLO 6	Understand the concept of free-lancing

Course Contents:

Unit	Specific Objectives	Content	Teaching and Learning Approach
Unit 1: Introduction to Information and Communications Technology (ICT) and Computer System	The student will be able to: • Explain the concept of ICT and its related terminologies. • Describe the information processing cycle. • Analyze the impact of ICT on educational, social and economic	Definition of ICT, basic concepts and terminologies. Data, Information Application of ICT, Advantages and Disadvantages of ICT, Impact of ICT Career opportunities in ICT education Information Processing Cycle. Classification of Computers	Classroom Lectures

	development. • Identify career opportunities in ICT education. • Differentiate among the classes of computers and the usages of them. • Identify the vital components of the Systems Unit.	The Vital Components of the Systems Unit.	
Unit 2: Computer Hardware and Software	The student will be able to: • Describe the categories of Computer Hardware. • Describe the commonly used Input and Output devices • Identify the main processing devices, storage devices and media. Identify the main communication devices. • Identify types of Software packages. • Distinguish between an Operating System and Application software. • Identify different types, examples and uses of Operating Systems and Application software • Distinguish between Open Source and Proprietary Software.	Categories of Computer Hardware: Input devices, Processing devices, Output devices, Storage devices Communication devices, Main Processing Devices: The Processor, Control Unit and Arithmetic and Logic Unit Software Packages, Operating Systems, Types and uses of Operating Systems, Types and uses Application Software: Educational software, Games software, Graphics software Browsers: Internet explorer, Google chrome, Mozilla Firefox, Opera, Internet explorer, Mozilla Firefox; Proprietary and Open Source Software	Classroom lectures and Lab
Unit 3: Introduction to Word Processing Application	• The student will be able to: • Identify Word Processing packages. • Create and save a document using the Word Processor. • Format a Word document using formatting tools. • Demonstrate the ability	Word Processing Packages and Their Uses. Introduction of Microsoft Word Software. File creation and saving: New, Save, Open, Save As. Editing: Copy/Cut, Paste, Undo, Redo, Find, Replace, Clipboard, Sub-Headings And Paragraphs, Text Correction, Wrapping Text, Text	Classroom Lectures, Lab, and Hands-on Practice

	to perform collaborative editing. • Insert tables in a Word Processing document. • Insert symbols and pictures in Word Processing documents. • Use layout techniques in document creation. • Inserting headers and footers. • Print documents using the various print options.	Orientation Formatting: Font: Style, Size, Color, Bold, Underline, Italic, Superscript, Subscript, Shadow, Strikeout. Paragraph: Alignment, Bullet & Numbering, Indent, Line Spacing, Table Border Insert: Table, Picture, Shape, Smart Art, Chart, Header, Footer, Page Number, WordArt, Drop Cap, Symbols, Equations, Hyperlink, Comment. Page Design: watermark, page border Layout: Page setup, print	
Unit 4: Spreadsheet Application	• The student will be able to: • Identify Spreadsheet Packages. • Explain the importance of the Spreadsheet application in data management. • Explain related concepts and terminologies in the Spreadsheet. • Identify features in the Spreadsheet application window. • Create and save a Workbook. • Construct and insert simple formulae and functions. • Format the worksheet using formatting tools. • Printing a worksheet.	Spreadsheet Packages, e.g. Excel. Importance of Spreadsheet application in Data Management, Related Concepts and Terminologies (e.g., cell(s), rows, columns, worksheet, workbook) Excel Tool Bars: Formatting Bar, Standard Bar, Formula Bar. Types of Data and Their Uses (e.g., number, date, text, currency), Creating and Saving a Workbook, Formula and Functions, Sorting, filtering, validation, creating pivot table. Formatting Worksheet Using Formatting Tools. Draw Graph/chart, Printing Worksheet.	Classroom Lectures, Lab and Hands-on Practice

Unit 5: Presentation Application	• The student will be able to: • State the importance of the Presentation application. • Identify the commonly used features of a Presentation application while prepare a presentation. • Create and save presentations using a template, Add new slide(s). Edit text, Format text, Insert objects, images and pictures, Run slide show, Apply transition, animation effects to slides • Select the print option for printing. • Prepare a presentation on a selected topic and present it.	Presentation Applications Packages, Devices used for Presenting, Importance of Presentation Application, Principles for Designing Presentations, Terminologies in Presentation Application (eg, , Slide transitions, Slide show, etc.), Commonly Used Features of Presentation Application Window: Toolbars, Different presentation view modes Prepare a Presentation: Slide creating, editing, theme, background, inserting elements (image, audio, video hyperlink, table, smart art, graph, etc.) and formatting slides, Slide Layout, slide Show, slide transition, animation Effects. Selection of Print Option: Entire presentation, Specific slides, Handouts, Notes pages, outline view of slides.	Classroom Lectures, Lab and Hands-on Practice
Unit 6: Privacy and Security	The student will be able to: • Understand the basics of digital security • Use some security tools. • Understanding digital ethics.	Introduction to Information Security, cybercrime, DoS and DDoS Attack, Key Management, Digital Signature and Certifications, privacy, Data Security, Vulnerability, Threat and Risk, Malware, Social Engineering, Hacking, Plagiarism, Fishing, Software Piracy, Worms and Viruses, Spam, Adware, Malware, Spyware, Antivirus Software Ethics in the digital world	Classroom Lectures, Lab and Hands-on Practice
Unit 7: Using The Internet to Communicate and Accessing	• The student will be able to: • Explain basic concepts, requirements, and	Internet, Intranet, Extranet, IP Address, Masking, MAC Address, Internet Services, OSI Reference Model, TCP/IP	Classroom Lectures, Lab and Hands-on Practice

Information	terminologies of the Internet • Apply the rules and regulations in the use of the internet. • Using email • Use the internet social network to communicate. • Use Uniform Resource Locators (URLs) to access Information. Use search engines to access information • Upload files to virtual drives and work on it.	protocol stack, IPv4, IPv6, subnet Masking, MAC Address, Internet Services, Network Configuration and Troubleshooting, Wi-Fi, Broadband, Email Usage. Rules and Regulations in the Use of the Internet: Spam- Unsolicited Emails, People’s Privacy, Intellectual Property Rights, etc. E-mail: Creating an Email Account, Sending, Accessing Email Messages, Attaching Documents to Email Messages, Using the Internet: Social Networks to Communicate, Uniform Resource Locators (URLs) to Access Information, Using Search Engines, Downloading Information from the Internet. Transferring Information from the Internet to a Different Application Intellectual Property Rights, ICT Policy, Software Piracy etc. Using Cloud Space: Google Drive, Google Workspace, OneDrive, Dropbox, etc.	
Unit 8: Emerging Technologies: Data analytics, Artificial intelligence, Machine learning	• Define Data Analytics, Artificial Intelligence (AI), and Machine Learning (ML). • Understand how data is collected, processed, and used for decision-making. • Recognize the role of AI and ML in everyday life. • Explain basic differences between AI	Introduction to Data Analytics: Define Data, Types of Data, Define Data Analytics, Basic Steps in Data Analytics, Applications of Data Analytics, Common Tools of Data Analytics (Excel, Tableau, Power BI, Python, SQL, etc.). Artificial Intelligence (AI): Define AI, Objectives of AI, AI capabilities, AI	Classroom Lectures, Lab and Hands-on Practice

	and ML. • Discuss benefits and challenges of these technologies. • Recognize current trends and career opportunities in these fields.	applications (NLP, Image Recognition, Predictive Analytics, Recommender Systems, Robotics, etc.); AI Tools: OpenAI GPT, TensorFlow, PyTorch, Keras, Scikit-learn, etc.), AI in daily life (Voice assistants, facial recognition, GPS route suggestions, chatbots, etc.). Machine Learning (ML): Define Machine Learning (ML), How It Works, Classification of ML, applications of ML, and common ML platforms (Teachable Machine, TensorFlow, PyTorch, Microsoft Azure Machine Learning, etc.). Relationship Between Data Analytics, AI, and ML Benefits & Challenges of Data Analytics, AI, and ML. Future Trends & Career Paths.	
Unit 9: Introduction to Freelancing	The student will be able to: • Define and explain the fundamental concept and significance of freelancing in the global context. • Identify and categorize various online marketplaces and professional fields. • Develop professional profiles, portfolios, and proposals suitable for freelancing platforms.	Introduction and Basic Concepts, Fields of Freelancing, Essential Skills and Preparation, Introduction to Freelancing Marketplaces, Creating Profile and Portfolio, Earning and Transaction Process, Building a Freelancing Career, Challenges and Solutions.	Classroom Lectures, Practical Demos, Assignments, Discussions

	• Demonstrate the use of online payment systems and financial transaction methods. • Analyze and evaluate strategies for career development and effectively apply techniques to overcome freelancing challenges.		
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List of Books:

Norton, P. (2008). *Introduction to computers* (9th ed.). The McGraw-Hill.

Comer, D. E. (2018). *The internet book: Everything you need to know about computer networking and how the internet works* (5th ed.). Chapman and Hall/CRC Press.

Lambert, J., & Frye, C. (2015). *Microsoft Office 2016 step by step*. Microsoft Press.

Hassan, N. A., & Hijazi, R. (2017). *Digital privacy and security using Windows: A practical guide*. Apress.

Maheshwari, A. (2024). *Data analytics made accessible*. Jay Cobb.

Russell, S. J., & Norvig, P. (2020). *Artificial intelligence: A modern approach* (4th ed.). Pearson.

Alpaydin, E. (2020). *Introduction to machine learning* (4th ed.). MIT Press.

Course Code	219904	Marks: 25	Credit: 1
Course Title:	Lab: Information and Communication Technology		

Course Objectives:

The main objective of the course is to teach the students' understanding and skills in using, and applying technology to solve problems and enhance various aspects of life and work. It includes assembling hardware, installing software, preparing PPT slides, and producing Word and Excel documents.

Course Learning Outcomes:

The student will be able to:

CLO 1	Learn assembling hardware
CLO 2	Prepare, edit and print Word documents and excel
CLO 3	Prepare Power Point presentation.
CLO 4	Access information from Internet, e-mail
CLO 5	Installation of anti-virus software
CLO 6	Data collection, Prediction, Pattern recognition, classification
CLO 7	Exploring markets, Proposal writing, Simulation strategies

List of Experiments

CLO Addressed	Unit	Experiments	Teaching Learning Approach
CLO1	1-4	- Assemble different hardware - Install different software - Operate the computer - Drive, folder and file management - Maintenance	Lab and Hands-on Practice
CLO 2	3	Word Prepare a Word document on a specific topic (e.g, routine, question paper, CV, reports, applications)	Lab and Hands-on Practice

		• Formatting the document (Alignment, table, border, watermark, etc.), e.g., newspaper article, academic report, or documentation used in daily life, book, poster • Print documents with different paper and printers	
CLO 2	4	• Excel • Prepare a grade sheet • Prepare a family expenditure • Prepare a business expenditure report • Prepare payroll management, with a report • Create graphs on the given data • Print Excel files	Lab and Hands-on Practice
CLO 3	5	Power point • Prepare an academic presentation on a specific topic. • Formatting the slides & using different tools. • Apply animation and transition • Print PPT files in different modes: Hand note, Slides shorter, outline	Lab and Hands-on Practice
CLO4	6	• Install antivirus software, e.g., Norton Antivirus, McAfee, Kaspersky, Avast.	Lab and Hands-on Practice
CLO5	7	• Use of email • Access information from the internet, use a search engine. • Use of virtual drive for collaboration • Google Meet	Lab and Hands-on Practice
CLO6	8	• Data Collection and Visualization (Excel) • Simple Prediction (Excel) • Pattern recognition (Teachable Machine) • Classification (Teachable Machine)	Lab and Hands-on Practice
CLO7	9	Free lancing • Marketplace exploration and portfolio creation • Proposal writing • Payment simulation	Lab, Hands-on, Group Work, Discussion

Instructions for the Lab:

1. Lab sessions should be hands-on, with students engaging in tasks like assembling hardware, installing software, and using office tools.
2. Software like Microsoft Word, Excel, PowerPoint, and Teachable Machine will be used for document creation, data analysis, and basic machine learning.
3. Labs also include antivirus installation, email use, and online collaboration via Google Meet and Drive, emphasizing teamwork and problem-solving.

Instructions for the Lab exam:

1. The lab exam is individual. Students must answer two out of seven questions.
2. Marks distribution: Experiment (20 marks, 10 for each) for practical tasks, Viva-Voce (5 marks) for oral assessment. Total: 25 marks.

List of Books:

Comer, D. E. (2018). *The internet book: Everything you need to know about computer networking and how the internet works* (5th ed.). Chapman and Hall/CRC Press.

Lambert, J., & Frye, C. (2015). *Microsoft office 2016 step by step*. Microsoft Press