

NATIONAL UNIVERSITY

BANGLADESH



Syllabus

Department of Library and Information Science (LIS)

Four-Year B.A. (Honours) Course
Effective from the Session: 2024–2025

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.

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 positions 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.

Name of the Program: Library and Information Science (LIS)

Vision of the Department: To educate and empower individuals to access, manage and apply information efficiently in order to meet the growing information needs of society.

Program Educational Objectives (PEO): Undergraduates of the BSS Honours in Library and Information Science (LIS) program will be able to:

PEO1: Develop a foundational understanding of the principles, theories, and practices of LIS to support lifelong learning.

PEO2: Apply emerging technologies to manage and disseminate information in libraries and information centers.

PEO3: Demonstrate ethical and professional responsibility in the management of information services.

PEO4: Contribute effectively to information-driven society through critical thinking, communication, and leadership skills.

PEO5: Engage in advanced studies or professional development in the fields of library, information science, or related disciplines.

Program Learning Outcomes (PLO):

Upon successful completion of the programme, students will be able to:

PLO1: Explain core concepts, functions, and types of libraries and information centers.

PLO2: Apply information organization principles such as cataloguing, classification, and metadata creation.

PLO3: Utilize ICT tools and current technologies to manage and deliver library services.

PLO4: Demonstrate the ability to manage resources, services, and personnel in libraries and information centers.

PLO5: Understand the legal, social, and ethical responsibilities of information professionals.

PLO6: Communicate effectively in both oral and written forms within professional settings.

PLO7: Engage in research and self-directed learning in library and information science.

PLO8: Function effectively as an individual or as a team member in diverse and multidisciplinary environments.

PEO to PLO Mapping:

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
PEO 1	√	√						
PEO 2			√	√				√
PEO 3					√			
PEO 4				√	√	√		√
PEO 5	√	√				√	√	

Courses and Marks Distribution

First Year

Course Code	Course Title	Marks	Credits	Remarks
213801	Introduction to Library and Information Science	100	4	Core Course
213803	Organization of Knowledge (Classification and Cataloguing theory)	100	4	Core Course
213805	New Technologies and Current Trends in Information Systems	100	4	Core Course
213807	Management of Library and Information Centre	100	4	Core Course
212009	Introducing Sociology <i>or</i>	100	4	Allied
212109	Introduction to Social Work			
219901	History of Bangladesh: Language, Culture, Identity	100	4	Embedded
219903	Information and Communication Technology	75	3	Embedded
219904	Lab: Information and Communication Technology	25	1	Embedded
	Total =	700	28	

Detailed Syllabus

Course Code: 213801	Marks: 100	Credits: 4	Class Hours: 60
Course Title: Introduction to Library and Information Science			

Course Objectives: This course aims to:

1. Understand the concept, scope, and history of LIS.
2. Recognize the role of information in society.
3. Learn about the evolution of writing and printing.
4. Identify types of libraries and their services.
5. Understand the role and ethics of LIS professionals.
6. Explore global trends and future of libraries.
7. Know basic LIS terms and tools.

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

CLO1: Understand the basic concepts and scope of LIS.

CLO2: Describe the historical development of libraries.

CLO3: Explain the role of information in society.

CLO4: Identify types of libraries and their services.

CLO5: Understand the evolution of writing and printing.

CLO6: Recognize the role and ethics of LIS professionals.

CLO7: Discuss future trends and global issues in LIS.

CLO8: Use basic LIS terms and tools effectively.

CLO to PLO Mapping:

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO 1	√							
CLO 2	√							√
CLO 3	√		√		√			
CLO 4	√			√	√	√		√
CLO 5	√					√	√	
CLO 6					√			
CLO 7			√		√		√	√
CLO 8			√	√				

Course Contents

Unit Name	Topic	Teaching Learning Strategy	CLO
Unit-1: Concepts of Library and Information Science (LIS)	Definition of Library and Information Science (LIS), Scope and Nature of LIS; Multidisciplinary features of LIS; Growth and progress of Libraries from ancient to modern times; Major historical libraries (e.g., Babylonian and Assyrian Libraries; Egyptian, Alexandria, Greek Roman and Nalanda Libraries; Historic early libraries in Bengal;	Lecture, Problem-solving Exercise and Group discussion	CLO-1 & CLO-2
Unit-2: Information and Society	Data; Information; Knowledge; Types and its importance in society; characteristics of information and knowledge, parameters of information, Source of information, and human information needs; basic concepts of information theory; Role of Libraries in Society; Ethics of Information Professionals; Ranganathan's Five Laws of Library Science	Lecture, Assignment and Quiz	CLO-3, CLO 6
Unit-3: History of Writing Materials	Invention of library materials, Evolution of Books and Writing materials; Early printing and Print Technology with Emphasis on Bengali Printing Heritage	Lecture, Multimedia presentation, Assignment and Workshop	CLO-2 & CLO-5
Unit-4: Library and Library Services	Categories of Libraries (Academic, Public, Special, and National Libraries); Types of services provided by Libraries and Information Centres; effective use of Library and/or Information institutions; Distinction between	Group discussions, Question Answer, Assignment	CLO-4, CLO-8

Unit Name	Topic	Teaching Learning Strategy	CLO
	information and reference service, referral service and document delivery service, Tools for exploring information resources and their uses: catalogue, bibliography, index, abstract, reference materials, computer databases, etc.	and Presentation	
Unit-5: The LIS Profession and the Future of Libraries	Librarianship, The Changing Role of the Librarian; Professional Organizations: ALA, SLA, IFLA, ASIS&T, LAB, Promoters of Library and Information Services: RRRLF, UNESCO Libraries in Times of Crisis (e.g., COVID-19, Natural Disasters), Innovation, Entrepreneurship, and Social Impact in LIS, Global Perspectives and the Future of Access.	Lecture, Multimedia presentation, Assignment and Workshop	CLO-6, CLO-7
Unit-6: LIS Terminology	The Language of Libraries, Terminology of Library Operations, Information Organization, Digital Resources and Services, Professional Communication.	Lecture, Quiz, Assignment and Question-answer	CLO-8

List of Books:

- Bawden, D., & Robinson, L. (2022). *Introduction to information science*. Facet Publishing.
- Bemis, M. F. (2014). *Library and information science: A guide to key literature and sources*. American Library Association.
- Chowdhury, G. G., & Chowdhury, S. (2003). *Introduction to digital libraries*. London: Facet Publishing.
- Harris, M.H. (1999). *History of libraries in the Western world*. Scarecrow Press.
- Kawtra, P. S. (2000). *Textbook of information science*. New Delhi: AHP Publishing Company.
- Miller, J. B. (2014). *Internet technologies and information services*. Santa Barbara: Calif.

Rubin, R. E. (2016). *Foundations of Library and Information Science* (4th. ed.). ALA Neal-Schuman.

Rowley, J. E., & Farrow, J. (2018). *Organizing knowledge: Introduction to access to information: Introduction to access to information* (1st ed.). London: Routledge.

Sharma, R. N. (2012). *Libraries in the early 21st century: An international perspective*. Berlin: De Gruyter Saur.

হক, কাজী মোস্তাক গাউসুল (২০০৮). একুশ শতকের প্রেক্ষাপটে সমাজ তথ্য ও গ্রন্থাগার (১ম সংস্করণ)। ঢাকা: গণ উন্নয়ন গ্রন্থাগার।

Course Code: 213803	Marks: 100	Credits: 4	Class Hours: 60
Course Title: Organization of Knowledge (Classification and Cataloguing theory)			

Course Objectives: This course aims to:

A. Classification Theory

1. Understand the purpose and process of classifying library resources.
2. Learn basic principles and theories of classification.
3. Identify tools like notation, index, and generalia class.
4. Evaluate and design classification schemes.

B. Cataloguing Theory

1. Understand the concepts and types of library catalogues.
2. Identify elements of catalogue entries.
3. Apply subject headings and cataloguing rules.
4. Explore modern cataloguing trends.

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

CLO1: Demonstrate knowledge of classification and cataloguing principles and theories.

CLO2: Apply tools and techniques for organizing library resources effectively.

CLO3: Analyze and evaluate classification schemes and cataloguing practices.

CLO4: Utilize subject headings and cataloguing rules accurately.

CLO5: Adapt to modern trends and innovations in classification and cataloguing.

CLO6: Communicate professional knowledge using standard LIS terminology.

CLO7: Uphold ethical standards and professional responsibility in LIS practices.

CLO to PLO Mapping:

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO 1	√	√						
CLO 2		√		√				
CLO 3		√					√	
CLO 4		√						
CLO 5		√	√				√	√
CLO 6						√		
CLO7					√			

Course Contents:

Unit Name	Topic	Teaching Learning Strategy	CLO
(A) Organization of Knowledge (Classification theory)			
Unit-1: Introduction to Classification and Knowledge Organization	Basics of Classification and Organization of knowledge, meanings of classification, Scope, Importance; Purpose of arrangement of library resources, steps of subject determination, factors to determine the arrangement, helpful order, necessary terms used in classification.	Lecture, Assignment and Workshop	CLO-1 & CLO-6
Unit-2: Principles and Theoretical Foundations	Principles of classification: tree of porphyry, principles of division, predicable, canons and criteria of book classification.	Lecture, Assignment and Workshop	CLO-1 & CLO-3
Unit-3: Components and Tools of Book Classification	Special features of book classification: Generalia class, standard subdivision, form class, notation (definition, purpose, kinds of notation) qualities of good notation mnemonic value of notation. Index: definition, function and kinds of index.	Lecture, Assignment and Workshop	CLO 2 & CLO 3
Unit-4: Design and Evaluation of Classification Schemes	Criteria of a good classification and construction of a classification scheme.	Lecture, and Assignment	CLO-2 & CLO-3
(B) Organization of Knowledge (Cataloguing theory)			
Unit-1: Basics of Library Cataloguing	Preliminary concepts of catalogue and cataloguing: Concepts, significance, objectives, functions, importance, characteristics of catalogue, kinds of catalogue and their comparative analysis, catalogue vs bibliography.	Lecture, Group discussion, Assignment and Workshop	CLO-1 & CLO-6
Unit-2: Catalogue Entry	Bibliographical / Technical reading of printed media and elements of catalogue entry.	Lecture, Assignment	CLO-2 & CLO-4

Unit Name	Topic	Teaching Learning Strategy	CLO
		and Workshop	
Unit-3: Subject Headings & Rules	Subject headings, general rules & procedures of cataloguing.	Lecture, Assignment and Workshop	CLO-4 & CLO-6
Unit-4: Modern Trends	Modern system of cataloguing.	Lecture, Assignment and Workshop	CLO-6 & CLO-7

List of Books:

Akers, S. G. (1944). *Simple library cataloguing*. Chicago: A.L.A.

Broughton, V. (2015). *Essential classification*. Facet Publishing.

Brown, J. D., & Stewart, D. (1986). *Subject classification for the arrangement of libraries and the organization of information: With tables, indexes, etc., for the subdivision of subjects*. Grafton.

Chan, L. M., & Salaba, A. (2015). *Cataloging and classification: an introduction*. Rowman & Littlefield.

Islam, K. M. S. (2008). *Essentials of cataloguing and classification*. New Progoti Prokashoni.

Islam, K. M. S. (1991). *Number building in Dewey decimal classification: 19th and 16th editions: A practical manual*. Khan and Sons Pub.

Rowley, J., & Hartley, R. (2017). *Organizing knowledge: an introduction to managing access to information*. Routledge.

Mills, J. (1973). *A modern outline of library classification*. Chapman & Hall.

Sayers, W. C. B., & Arthur, (1970). *A manual of classification for librarians*. Andre Deutsch.

Welsh, A. & Batley, S. (2012). *Practical cataloguing: AACR, RDA and MARC 21*. Facet Publishing.

মুন্সী, এম. নাসিরউদ্দিন (২০১৪). *মৌলিক শ্রেণীকরণ (১ম সংস্করণ)*। ঢাকা: জাহিন-সামিন প্রকাশনী।

Course Code: 213805	Marks: 100	Credits: 4	Class Hours: 60
Course Title: New Technologies and Current Trends in Information Systems			

Course Objectives: This course aims to:

1. Provide a foundational understanding of modern information systems and emerging technologies.
2. Familiarize students with current trends in digital libraries, databases, and web-based services.
3. Enable students to assess the impact of technological innovations on information access and dissemination.
4. Introduce relevant hardware, software, and networking concepts applicable to library environments.

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

CLO1: Identify and describe emerging technologies used in information systems.

CLO2: Explain how technologies such as cloud computing, mobile apps, and IoT are impacting library services.

CLO3: Demonstrate basic knowledge of computer systems, networks, and software used in libraries.

CLO4: Analyze current trends such as digital preservation, open access, and big data in the context of information science.

CLO5: Apply digital tools for accessing, retrieving, and managing information effectively.

CLO to PLO Mapping:

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO 1	√		√					
CLO 2			√		√			√
CLO 3			√			√	√	
CLO 4	√			√				√
CLO 5				√			√	

Course Contents

Unit Name	Topic	Teaching Learning Strategy	CLO
Unit-1: Information and Communication Technologies (ICT) in Library and Information Services	Concept of information and communication technologies (ICTs), Evolution and development, Use and applications of ICTs in different fields of library and information institutions in Bangladesh, Impact of ICT in library and information systems, Current trends and existing situation, problems and prospects of using ICT in Bangladesh.	Lecture, Assignment and Workshop	CLO-1 & CLO-2
Unit-2: Fundamentals of Computer Systems and Components	Concepts, types of computers based on processing/signaling, purpose and capacity or size, comparisons of mainframe, mini and microcomputers, generation of computers, input devices, CPU-Control units, Arithmetic-logic unit. primary memory, output devices.	Lecture, Group Discussion, and Assignment	CLO-1
Unit-3: Computer Hardware for Libraries	Overview of computer hardware, basic components of a computer system, input and output components of a computer system, factors to be considered for the purchase of hardware of microcomputers in library and information institutions, distinction between color monitor and monochrome monitor.	Lecture and Workshop	CLO-2
Unit-4: Computer Software Concepts and Applications	Concepts, classification of software and introduction of some application software used for the library and information center in Bangladesh; IoT, cloud computing applications in LIS.	Lecture, Assignment and Workshop	CLO-2
Unit-5: Operating Systems and Process Management	Concepts, types of operating system based on processing and user interface, functions of operating system, introduction to some popular operating systems, process, process management, Big Data analytics, open access trends, e-learning integration.	Lecture, Assignment, Group Discussion, and Workshop	CLO-3

Unit Name	Topic	Teaching Learning Strategy	CLO
Unit-6: Computer Memory Devices and Data Storage Systems	Memory devices and memory capacity of computer systems, comparison of primary and secondary memory, introduction of ROM, PROM, EPROM, EEPROM, distinction between RAM and ROM, SRAM and DRAM, Optical disk, DVD, Punched card and data storage system and CD-ROM, data privacy, digital preservation, resource sharing.	Lecture, Assignment, Practical and Workshop	CLO-4
Unit-7: Digital Librarianship	Concepts, necessity, functions, characteristics, major activities and skills of digital librarianship, institutional repositories, web-based services, digital library scenario in Bangladesh; Problems for digitization of library in Bangladesh, and recommendations.	Lecture, Assignment, Group Discussion and Workshop	CLO-4 & CLO-5
Unit-8: Computer Networks	Concepts, types of computer networks and their configurations, layers and protocol of computer networks; Network topology, types of LAN based on control structure and services, advantages and disadvantages of Peer-to-Peer (P2P) network and client server network; Necessary accessories for Computer networks.	Lecture, Assignment, and Group Discussion	CLO-5

List of Books:

- Andrew, J. (2013). *A+ Guide to Managing and Maintaining Your PC* (8th ed.). USA: Cengage Learning.
- Bilal, D & Breeding, M. (2014). *Library Automation: Core Concepts and Practical Systems Analysis* (3rd ed.). UK: Libraries Unlimited.
- Clements, A. (2006). *The Principles of Computer Hardware* (4th ed.). UK: Oxford University Press.

- Dowd, R. (2018). *The Librarian's Guide to Homelessness: An Empathy-Driven Approach to Solving Problems, Preventing Conflict, and Serving Everyone* (1st ed.). New York: ALA Editions.
- Islam, M. S. (2015). *Information and Communication Technology: Theory and Practical* (1st ed.). Dhaka: Tahmid-Fariha publications.
- Minasi M. (2005). *The Computer PC Upgrade and Maintenance Guide* (16th ed.). New Delhi: BPB.
- Peter, N. (2006). *Introduction to Computer* (6th ed). New York: McGraw-Hill.
- Rahman, M.L. & Hossain, M.A. (2017). *Computer Fundamentals* (1st ed.). Dhaka: Systech Publications.
- Silberschatz, A & Galvin, P.B. (2009). *Operating System concepts* (8th ed.). USA: John Wiley & Sons.
- Tedd, L.A. (1993). *An Introduction to Computer-based Library Systems* (3rd ed.). USA: Wiley.

Course Code: 213807	Marks: 100	Credits: 4	Class Hours: 60 Hours
Course Title: Management of Library and Information Centre			

Course Objectives: This course aims to:

1. Introduce basic principles and practices of managing library and information centers.
2. Provide knowledge on organizational structure, planning, budgeting, and leadership in library settings.
3. Equip students with skills to manage human and material resources in libraries.
4. Discuss modern managerial approaches and their applicability in libraries.

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

CLO1: Define the principles and functions of library management.

CLO2: Explain organizational structure, planning processes, and budgeting in library settings.

CLO3: Apply human resource management principles in library staffing and training.

CLO4: Evaluate service quality, performance, and user satisfaction in library operations.

CLO5: Illustrate the use of modern management tools and techniques in information centers.

CLO to PLO Mapping:

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO 1	√			√				√
CLO 2		√		√			√	
CLO 3		√			√	√		
CLO 4	√		√				√	
CLO 5			√			√		√

Course Contents:

Unit Name	Topic	Teaching Learning Strategy	CLO
Unit-1: Information Centre Management and Library Administration	Definition of Library administration and Management; difference between Library administration and Management; principles of library and Information centre management;	Lecture and Assignment	CLO-1

Unit Name	Topic	Teaching Learning Strategy	CLO
	Administrative theories by Henri Fayol, Max Weber, Urwick, Luther Gulick; Management principles in different types of libraries and Information centre.		
Unit-2: Planning and Management Function of Library and Information Centre	Definition of planning in management; types of planning; ideas and steps; Benefits and steps of Management by objectives (MBO); Principles of Total Quality Management (TQM); functions of Management POSDCORB.	Lecture and Group Discussion	CLO-1
Unit-3: Library Committee and Operations	Functions and responsibilities; library committee in different types of libraries; role of the librarian in the committee; Acquisition of knowledge resources; processing; utilization; circulation and reference functions; reader service.	Lecture and Assignment	CLO-2
Unit-4: Human Resource Management and Personnel Management	Definition of Human Resources Management (HRM) and Personnel Management (PM); Difference between personnel Management and Human Resources Management; principles and standards for selection and appointment; staff management and job description, staff supervision, communication skill, training and development.	Lecture, Assignment, Group Discussion, and Workshop	CLO-2
Unit-5: Library Resources Management	Library building planning, prerequisites of library planning and architectural view; location of the building; interior decoration; furniture, fittings, lighting, ventilation, etc.; knowledge resources management, acquisition utilization and technical process.	Lecture, Assignment, and Workshop	CLO-2 & CLO-3
Unit-6: Financing and Budgeting of	Definition of budget; process of budgeting, objectives and types of library budget, sources	Lecture, Assignment	CLO-4

Unit Name	Topic	Teaching Learning Strategy	CLO
Library and Information Centre Management	of income and heads of expenditure, budget planning for the different types of libraries, principles of budgeting, processing and preparing annual report.	and Workshop	
Unit-7: Library records and Statistics	What is the role of statistics in libraries; why do libraries collect statistics; clarifying the library records and statistics circulation records cataloguing records, usage statistics, collection statistics, circulation statistics, downloads statistics etc.	Lecture, Assignment and Group Discussion	CLO-4
Unit-8: Performance Appraisal vs. Performance Management	Definition of Performance appraisal and performance management; Make comparison performance appraisal and performance management; importance of user service; assessing of Library Service Quality (SERVQUAL) and Library Quality (LibQUAL).	Lecture, Assignment and Practical	CLO-4 & CLO-5

List of Books:

- Bryson, J.O. (1990). *Effective library and information center management* (1st ed.). Aldershot: Gower.
- Cowley, J. (1982). *Personnel management in libraries* (1st ed.). London: Bingley.
- Debowski, S. (2007). *Knowledge Management* (1st ed.). New Delhi: Wiley India.
- Hussey L.K. & Velasquez, D.L. (2019). *Library Management 101: A Practical Guide* (2nd ed.). USA: ALA Editions.
- Kumar, K. (1987). *Library administration and management* (3rd ed.). New Delhi: Vikash Publishing.
- Mookherjee, S.K. & Sengupta, B. (1977). *Library organization and library administration* (1st ed.). Calcutta: World Press.
- Noragh J. and Peter, J. (1982). *Staff management in library and information work* (1st ed.). Aldershot: Gower.

- Robek, M. F., Brown, G. F., & Maedke, W. O. (1987). *Information and records management* (4th ed.). USA: Glencoe Publishing Company.
- Robert D.S., Barbara B.M. (2017). *Library and Information Centre Management* (9th ed.). UK: Libraries Unlimited.
- Srikantaiah, T.K. & Koenig, M.E.D. (Eds.) (2001). *Knowledge management for the information professional* (ASIS Monograph Series), New Jersey: American Society for Information Science.

Course Code	212009	Marks:100	Credits:4	Class Hours:60
Course Title:	Introducing Sociology (Allied Course)			

Course Objectives:

The course is designed to provide foundational knowledge of sociology as a social science. It will explain key concept, principles and perspectives in sociology. It will highlight various structural issues like major social institutions, social classes, inequality, population and urbanization. Besides this, the course helps the students to develop sociological thinking to understand society and human behavior.

Course Learning Outcome (CLO)

After going through the course, students will be able to learn the following outcomes

CLO1	Students will be demonstrating knowledge about preliminary ideas of sociology.
CLO2	They will be informed about the contributions of sociologists
CLO3	They will apply several procedures of scientific social research
CLO4	They will explain various terms of culture and cultural diversity in society
CLO5	Students will get knowledge about different types and evolution of society
CLO6	Students will know both about social institutions and various factors which contribute to social stratification and mobility within society
CLO7	They will recognize different social problems of Bangladesh
CLO8	They will be able to analyse the influences of social forces on individual behaviour and social change which happens globally

Mapping of CLOs with PLOs

	PLO1	PLO2	PLO3	PLO4	PL05	PLO6	PLO7	PL0-8	PLO9	PLO10
CLO1	✓									
CLO2	✓									
CLO3					✓					
CLO4	✓									✓
CLO5	✓	✓								
CLO6	✓									

CLO7				✓					✓	
CLO8	✓		✓				✓			

Course Contents:

Chapter	Topic	Teaching- Learning Strategies	CLOs
1.	Definition, Scope and Development of Sociology: Definition of Sociology, Nature and scope of Sociology, Emergence of Sociology, Importance of Sociology as a science, Value freeness of sociology, relation with other scientific subjects.	Lecture and Assignment	CLO-1
2.	Founding thinkers and major theoretical perspectives: Auguste Comte, Karl Marx, Herbert Spencer, Emile Durkheim, Max Weber, Functionalist, conflict and Interactionist perspectives.	Lecture, Assignment and Group discussion	CLO-2
3.	Major Methods and Techniques of Sociology: Social research, Qualitative and Quantitative techniques, Survey method, Comparative Method, historical method, Scientific method, Case study, FGD, Interviews, Observation, and Experiments. Ethics in social research.	Lecture , Fieldwork and Group presentation	CLO-3
4.	Culture, Society and Civilization: Meaning and characteristics of culture, elements of culture and cultural change, Cultural lag, civilization, culture and civilization, community, organization and group.	Lecture, Assignment and Group Discussion	CLO-4
5.	Evolution and different types of society: Hunting and food gathering society, Horticultural society, Agricultural Society, Industrial society, Primitive communism, Slavery, Feudal, Capital, Socialism, Different types of capitalism, Socialism and modern communism,	Lecture and Assignment	CLO-5
6.	Social Institutions: Marriage and family, education, religion, economy and state. Characteristics and functions of each institution. Changing nature of institutions in modern society.	Lecture and Assignment	CLO-6

Chapter	Topic	Teaching- Learning Strategies	CLOs
7.	Social problems and Inequality: Nature of social problems, Population problem, poverty, unemployment, crime and deviance, corruption, drug addiction, over-urbanization. Social inequality and forms of stratification: caste, class race and gender. Theories of inequality and Social mobility.	Lecture and Assignment	CLO-7
8.	Social Interaction and Social Change: Social interaction and exchange, socialization, Causes of Social Change, theories of Social Change, technology and Social Change, globalization and its impact. Postmodern and postindustrial society.	Lecture and Assignment and Group Discussion	CLO-8

List of Books:

Giddens, A. (2009). *Sociology (6th ed.)*. Cambridge, UK: The Polity Press.

Goldthorpe, J. E., & Goldthorpe, J. E. (1985). *An introduction to sociology*. Cambridge,UK. Cambridge, University Press.

Halim, S., Amanullah, A. S. M., & Nasir, R. 1. (Eds.). (2024). *Society and sociology in Bangladesh: A South Asian perspective*. The University Press Limited.

Haralambos, M., & Holborn, M. (2013). *Sociology: Themes and Perspectives*. London, UK: Harper Collins publications.

Ritzer, G., & Murphy, W. W. (2019). *Introduction to sociology*. London, UK: SAGE publications

Schaefer, R., T. (2012). *Sociology: A Brief Introduction (10th ed.)*. New York, USA: McGraw-Hill.

Stolley, K. S. (2005). *The Basics of Sociology*. (1st ed.). Boston, USA: Greenwood Press.

Turner, B. S. (1999). *Classical Sociology*. (1st ed). London, UK: Sage Publication.

সেন, রঞ্জলাল .(১৯৯৭). *বাংলাদেশের সামাজিক স্তরবিন্যাস*, (২য় সংস্করণ), ঢাকা, বাংলাদেশ: নিউ এজ পাবলিকেশন্স

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Course Code: 212109	Marks: 100	Credits: 4	Credit Hours: 60	BSS Hon's 1st Year
Course Title: Introduction to Social Work (Allied Course)			Course Orientation: Theoretical	

Course Description

Introductory social work is an allied course for the registered students of respective disciplines. The focal objective of this course is to spread basic knowledge of social work education along with the concept, methods, relationship of social work with other disciplines, practice in different settings and social work as a profession. The course also covers industrial revolution, the philosophical foundations of social work, the development of professional education and its relationship with various religious creeds. Ethical principles and values are also discussed in this course.

Course Objectives

The objectives of this course encompass:

- To familiarize students about historical development and associated disciplines of social work;
- To help students able to understand the social work profession and industrial revolution;
- To attain knowledge about major social problems and intervention of social work;
- To introduce students about social work methods, types and practice in different settings;
- To introduce students to research and social research in social work arenas;
- Introduce students to religious and philosophical foundations of social work.

Course Contents

Chapter	Topics	Teaching Learning Strategy	CLOs
1	Concepts Relevant to Social Work Practice: Social Work, Social Welfare, Social Value, Social Reform, Social Legislation, Social Security, Social Development, Good Governance, Climate Justice, Field Work.	Class Lectures, PP Presentations, Content Analysis	CLO1
2	Associated Disciplines and Their Relations with Social Work: Sociology, Psychology, Economics, Political Science, Law, Journalism, Medical and Public Health, Anthropology.	Lesson Plans, Lectures, Handouts, Paraphrasing	CLO1

3	a. International Growth and Development of Social Work: UK and USA. b. Social Welfare Practices and Movements in Undivided India and Bangladesh: Traditional Welfare Activities and Charity, Social Reformers and their Movements. c. Evolution of Social Work Education in the Sub-continent and Bangladesh.	Lectures, Handouts, Exhibition of Audio-Visual Recordings, PP Presentations.	CLO2
4	Social Work Profession: Profession, Occupation, Social Work as a Profession, Values and Professional Code of Ethics of Social Work, NASW.	Lectures, Seminar Presentation, Group Discussion.	CLO2
5	Social Problems and Social Services in Bangladesh: Major Social Problems and Intervention of Social Work, Social Work Practice in Govt. Organizations (USS, RSS) and NGOs, Probation and Parole.	Lectures, Content Analysis, Visit And Demonstration	CLO3
6	Industrial Revolution (IR): Renaissance, Globalization, Industrialization, Urbanization, Impacts of IR on Society, Facing 4 th IR challenges with Communication skill, Analytical Ability, Problem Solving Ability, Digital Literacy and Adaptability; Skills of Social Work, 5 th Industrial Revolution and Social Work.	Lectures, Handouts, Audio-Visual Recordings, Visit And Demonstration. symposium,	CLO4
7	Types and Methods of Social Work: Types, Green Social Work, Basic and Auxiliary Methods; Concept, Elements, Principles, Significance of Social Work Methods in Bangladesh.	Lectures, Content Analysis, Seminar presentation, Group Discussion	CLO5
8	Social Research: Research, Research as a Scientific Method, Social Research, Methods, Techniques and Tools of Social Research, Sampling and Its Types, Research Proposal, Importance of Social Research.	Lectures, Handouts, Reading, Assignments, Content Analysis	CLO5
9	Social Philosophy and Religion: Social Philosophy, Individualism, Socialism, Welfare State, Contribution of Major Religions on Social Work and Humanity, Philosophical, Religions and Humanitarian Basis of Social Work.	Lectures, PP presentations, Workshop etc. according to pedagogy.	CLO6

Course Learning Outcomes (CLOs)

After Fruitful conclusion of the course apprentices can be able to:

- CLO1:** Know about the related concepts and associated disciplines of social work;
- CLO2:** Elucidate the international growth and development of social work profession;
- CLO3:** Demonstrate major social problems and social services in Bangladesh;
- CLO4:** Understand the Industrial revolution and its challenges;
- CLO5:** Know about social work types, methods of social work and social research;
- CLO6:** Understanding of social philosophy, religions and social work.

Mapping of Course Learning Outcomes (CLOs) with Program Learning Outcomes (PLOs)

CLO/PLO	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CLO1	✓	•		✓		•		✓	✓		•	✓
CLO2	•	✓	✓		✓	✓		•		✓	✓	
CLO3	✓		•				✓		•			✓
CLO4		✓	✓	✓		•		✓	✓	✓	✓	
CLO5	•				✓	✓		✓				✓
CLO6	✓	✓	•		✓			✓	✓	•	✓	•

✓ = Strong Relation	• = Weak Relation	Blank = Limited or No Relation
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List of Books

Barker, R. L. (1995). *The Social Work Dictionary*. Washington DC: NASW Press.

Friedlander, W.A. (1977). *An Introduction to Social Welfare*. New York: Prentice Hall.

Houssian, M.N. & Alauddin, M. (1990). *Introduction to Social Work Methods*. Dhaka: Bangladesh, Anwari publication.

Morales, A. & Sheafor, B. W. (1977). *Social Work: A Profession of Many Faces*. Boston: USA,

Allyn and Bacon.

Skidmore, R. A. & others. (1993). *Introduction to social work*. New Jersey: USA, Prentice Hall.

ইসলাম, ড. মো. নুরুল (২০১৪)। *সমাজকর্ম পরিচিতি*, ঢাকা: বাংলাদেশ, তাসমিয়া পাবলিকেশন্স।

ইসলাম, মো. শহিদুল (২০০৮)। *সমাজকর্ম*, ঢাকা: বাংলাদেশ, গ্রন্থ কুটির।

উদ্দিন, আহমেদ আয়েশ (১৯৭৮)। *রাষ্ট্রচিন্তা পরিচিতি প্লেটো থেকে মার্ক* (২য় সংস্করণ), ঢাকা: বাংলাদেশ, আইডিয়াল লাইব্রেরী।

করিম, রেজাউল (২০০৬)। *সমাজকর্ম: ধারণা, ইতিহাস ও দর্শন*, ঢাকা: বাংলাদেশ, জ্ঞানকোষ প্রকাশনী।

রহমান, হাবিবুর, দাস, তুলসী, ইসলাম, মো. ফখরুল ও ইসলাম, মো. রেজাউল (অনূদিত) (১৯৯৭)। *সমাজকর্ম অনুশীলন*, ঢাকা: বাংলাদেশ, গতিধারা।

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

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 (CLOs)

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 in 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 Impact on National Consciousness - The Influence of Religion on Bengali Identity	Interactive lectures and thematic assignments	CLO 2-3

• 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 Emergence 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 development. • Identify career opportunities in ICT education. • Differentiate among the	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 The Vital Components of the Systems Unit.	Classroom Lectures

	classes of computers and the usages of them. Identify 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 to perform collaborative editing. - Insert tables in a Word Processing document.	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 Orientation Formatting: Font: Style, Size, Color, Bold,	Classroom Lectures, Lab, and Hands-on Practice

	• 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.	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 Applications Packages, Devices used for Presenting, Importance of Presentation Application, Principles for Designing Presentations, Terminologies in Presentation	Classroom Lectures, Lab and Hands-on Practice

	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.	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.	
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 Information	• The student will be able to: • Explain basic concepts, requirements, and 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	Internet, Intranet, Extranet, IP Address, Masking, MAC Address, Internet Services, OSI Reference Model, TCP/IP 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.	Classroom Lectures, Lab and Hands-on Practice

	Locators (URLs) to access Information. Use search engines to access information • Upload files to virtual drives and work on it.	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 and ML. • Discuss benefits and challenges of these technologies. • Recognize current trends and career opportunities in these fields.	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 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,	Classroom Lectures, Lab and Hands-on Practice

		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. • 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.	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

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	Lab and Hands-

		• Prepare a Word document on a specific topic (e.g, routine, question paper, CV, reports, applications) • 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	on Practice
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