

## **Course Name: Application to Info. & Comm. Technologies**

Credit Hours: 2-1

Contact Hours: 2-3

Pre-requisites: None

### **Course Introduction:**

This course is designed to provide an introduction to the key concepts and technologies used in the field of Information and Communication Technologies (ICTs) and their applications. It will cover a wide range of topics including computer networking, database systems, web development, programming, and mobile application development. The course will also introduce students to the latest trends in the field of ICTs and their applications in various industries, including education, finance, healthcare, security and communications.

CLO No	Course Learning Outcomes	Bloom Taxonomy
CLO-1	Understand the importance of ICT in various fields and industries, such as business, healthcare, education, and entertainment.	C2 (Understand)
CLO-2	Understand emerging technologies and their impact on various fields and industries	C2 (Understand)
CLO-3	Apply data analytics tools to analyze and visualize data	C3 (Apply)
CLO-4	Analyze and evaluate different software applications	C4 (Analyze)

### **Course Plan:**

#	Weekly Distribution of Course Contents
Week-1	Introduction to Information and Communication Technologies
Week-2	Programming Concepts
Week-3	Describing role of Computer Networking
Week-4	Describing role of Database Systems
Week-5	Explaining Web Development Process

Week-6	Facets of Mobile Application Development
Week-7	Role of Cyber Security and its importance
Week-8	Data Analytics tools and techniques
Week-9	Introduction to Social media analysis
Week-10	Emerging Technologies
Week-11	Introduction to Artificial Intelligence and Machine Learning
Week-12	Internet of Things
Week-13	Cloud Computing
Week-14	Blockchain and technologies for distributed ledgers
Week-15	Introduction to Augmented Reality and Virtual Reality
Week-16	Case studies of ICT in healthcare, business

**Reference Materials:**

1. "Discovering Computers 2022" by Misty E. Vermaat, Susan L. Sebok, Steven M. Freund, Jennifer T. Campbell, and Mark Frydenberg (2021)
2. "Fundamentals of Information Technology" by Alexis Leon and Mathews Leon (2015)
3. "Information Technology for Management: On-Demand Strategies for Performance, Growth, and Sustainability" by Efraim Turban, Linda Volonino, and Gregory R. Wood (2015)