

**Fundamentals of E-Commerce (CSC-356)**  
**Tribhuvan University**  
**Institute of Science and Technology**  
**Soch College of Information Technology**  
**Bachelor of Science in Computer Science and Technology**

**Course no:** CSC-356 ----- **Full Marks:** 60+20+20

**Credit hours:** 3 ----- **Pass Marks:** 24+8+8

**Nature of course:** Theory (3 Hrs.)

**Course Synopsis:** Discussion on types of commerce, doing business in electronics, infrastructure of electronic commerce.

**Goal:** This course introduces basic concept of commerce and discusses the basic needs of electronic commerce.

**Course Contents:**

**Unit 1:** ----- 14 Hrs.

1.1 Introduction to Electronic Commerce: Introduction of commerce, Electronic commerce framework, electronic commerce and media convergence, the anatomy of e-commerce application.

1.2 The Network for Electronic Commerce: Need of network, market forces influencing the I-way, components of I-way, network access equipment, and global information distribution network.

1.3 The Internet as a Network Infrastructure: Introduction, the Internet terminology, NSFNET: Architecture and Components, Internet governance: The Internet Society.

**Unit 2:** ----- 23 Hrs.

2.1 Network Security & Firewalls: Client-Server network security, security threats in client-server, firewalls and network security, data & message security, encrypted documents and electronic mail.

2.2 Electronic Commerce & World Wide Web: Introduction, architectural framework for electronic commerce, WWW as an architecture, security in the web.

2.3 Consumer Oriented Electronic Commerce: Introduction, consumer oriented application, mercantile process models, mercantile models from the consumer's perspective, mercantile models from the merchant's perspective.

2.4 Electronic Payment Systems: Introduction, types of electronic payment system, digital token based electronic payment systems, smart cards and electronic payment systems, credit cards systems, Threat on electronic payment system.

**Unit 3:**----- 8 Hrs.

3.1 Inter-organizational Commerce & Electronic Data Interchange: Introduction, EDI application in business, EDI: legal, security, and privacy issues, EDI and electronic commerce.

3.2 The Corporate Digital Library: Introduction, dimensions of electronic commerce systems, types of digital documents, Issues behind document infrastructure, corporate data warehouses.

**Laboratory works:** Developing the small electronic payment system.

**Text Books:** Frontiers of Electronic Commerce, 5th Edition, Kalkotia and Whinston, Pearson Education Asia