

**E-Commerce**  
(Elective I)  
EG3106CT.2

**Year: II**  
**Part: I**

**Total: 7 hours /week**  
**Lecture: 3 hours/week**  
**Tutorial: 1 hour/week**  
**Practical: hours/week**  
**Lab: 3 hours/week**

**Course Description:**

This course aims to guide the students in both the theoretical and practical aspects of developing computer solutions for real-world problems. This course deals with the introduction, different business models for e-Commerce, concept of mobile computing, different types of on-line business systems, techniques and implementation for electronics payment system, and legal considerations in e-Commerce.

**Course Objectives:**

After completing this course, the students will be able to

1. Explain the steps required to set-up your E-commerce website for advertising purposes
2. Introduce the e-commerce.
3. Identify security issues of e-Commerce and e-commerce related Public Policy.
4. Explain the types of payment system and payment gateway.
5. Describe the legal and ethical issues of e-commerce and cyber law,
6. Familiarize with online marketing.

**Course Contents:**

**Theory**

**Unit 1. Fundamental concept of e-Commerce** **[6 Hrs.]**

- 1.1. Definition of Electronic Commerce
- 1.2. Scope of Electronic Commerce
- 1.3. Electronic E-commerce and the Trade Cycle
- 1.4. Emergence of Internet and commercial use of Internet
- 1.5. E-commerce Models, Personal web server, Internet information server, ASP page Contain scripts, Contain objects and components, Database access,
- 1.6. Application of E-Commerce

**Unit 2. Business Models of e-Commerce** **[6 Hrs.]**

- 2.1. Business to Business (B2B)
- 2.2. Business to Consumer (B2C)
- 2.3. Consumer to Consumer (C2C)
- 2.4. Development of B2B e-commerce
- 2.5. Difference between B2C and B2B e-Commerce
- 2.6. e-Procurement
- 2.7. Just in Time Delivery
- 2.8. Integration with Back-end Information System
- 2.9. Electronic marketing in Business-to-Business
- 2.10. Electronic Data Interchange (EDI)
- 2.11. EDI: The Nuts and Bolts, EDI & Business
- 2.12. Auctions and Services from Traditional to Internet Based EDI

- Unit 3. E-marketing and Advertising Concepts** [5 Hrs.]
- 3.1. Define E-marketing
  - 3.2. Explain Traditional Marketing
  - 3.3. Online Marketing vs offline marketing
  - 3.4. Tools for online and offline marketing
  - 3.5. Issues with online marketing
  - 3.6. Model of an online video store
- Unit 4. Mobile and Wireless Application** [5 Hrs.]
- 4.1. Define Mobile and wireless
  - 4.2. Growth of Mobile Commerce
  - 4.3. Wireless Application Protocol (WAP)
  - 4.4. Use of technologies for mobile commerce
  - 4.5. Architecture of Wireless Application Protocol
  - 4.6. Generations in Wireless Communications
  - 4.7. Security Issues related to Wireless Communication
- Unit 5. The network infrastructure for e-commerce** [8 Hrs.]
- 5.1. Network and internets
  - 5.2. Network routers
  - 5.3. Internet protocol suites
  - 5.4. Internet naming convention, (URLs, TCP, FTP, ISP, Telnet, Search engine)
  - 5.5. Broadband technologies (ADSL, Wi-Fi, LTE (4G), Bluetooth)
  - 5.6. Web-based client/server
  - 5.7. Software agents, Types of software agents
  - 5.8. Internet Security
  - 5.9. Multimedia delivery
  - 5.10. Managerial issues
- Unit 6. Electronic Payment System (EPS)** [4 Hrs.]
- 6.1. Define Electronic payment system
  - 6.2. Types of electronic payment system
  - 6.3. Digital token-based E-payment system
  - 6.4. Smart Cards & E-payment systems
  - 6.5. Credit card-based payment systems
  - 6.6. Digital wallet (eSewa, Khalti, ConnectIPS)
  - 6.7. Online banking facilities of banks (Nepali banks)
  - 6.8. Risk factor in electronic payment system
- Unit 7. Introduction to Entrepreneurship** [6 Hrs.]
- 7.1. Entrepreneurship development
  - 7.2. Entrepreneur Vs. Entrepreneurship, Entrepreneur Vs. Manager
  - 7.3. Attributes and characteristics of a successful Entrepreneur
  - 7.4. Entrepreneurial Culture
  - 7.5. Legal and Ethical Issues
- Unit 8. Public Policy** [5 Hrs.]
- 8.1. From legal issues to privacy
  - 8.2. E-commerce related legal incidents

- 8.3. Ethical and other public policy issues
- 8.4. Protecting privacy
- 8.5. Protecting intellectual property
- 8.6. Internet indecency and censorship
- 8.7. Taxation and encryption policies
- 8.8. E-commerce Law
- 8.9. Forms of Agreement
- 8.10. Government policies

**Practical:**

**[45 Hrs.]**

1. Project should be done by students in any e-commerce site (the project should include: business model, payment mode, network infrastructure, marketing strategy, SWOT analysis and working process of site) (Refer Amazon, Alibaba, E-bay, Paypal etc.)
2. Study visit to fully developed E-Commerce management organization.

<b>Final written exam evaluation scheme</b>			
<b>Unit</b>	<b>Title</b>	<b>Hours</b>	<b>Marks Distribution*</b>
1	Fundamental concept of E-Commerce	6	11
2	Business Models of e-Commerce	6	11
3	E-marketing and Advertising Concepts	5	9
4	Mobile and Wireless Application	5	9
5	The network Infrastructure for E-commerce	8	13
6	Electronic Payment System (EPS)	4	7
7	Introduction to Entrepreneurship	6	11
8	Public Policy	5	9
	<b>Total</b>	<b>45</b>	<b>80</b>

\* There may be minor deviation in marks distribution.

**References:**

1. Noel Jerke, April 2012. E-Commerce Developer's Guide to Building Community and using Promotional Tools. Sybex Inc.
2. Kenneth C. Laudon and Carol Guercio Traver, (11<sup>th</sup> edition), 2015. E-commerce 2015 business, technology, society. Pearson
3. Janice Reynolds, (2nd edition, 2015. The Complete E-Commerce Book, Design, Build & Maintain a Successful Web-based Business. Focal Press
4. Amir Manzoor, (1<sup>st</sup> edition), 2015. E-commerce 2016. Printed in the United States of America.