E-Commerce

Course Description

This course covers the fundamental concepts of E-commerce and E-business models, and components of E-commerce system.

Course Objectives:

The main objective of this course is to provide basic concepts of E-commerce, E-commerce Business Models, E-Payments, E-commerce Security.

S.N	CONTENT	LECTURE HOUR	ASSIGNMENT	LAB
1	**Fundamentals of Electronic Commerce**	4 HR		
1	a. Introduction of e-commerce i. Definition of e-commerce ii. E-business vs e-commerce iii. Types of e-commerce iv. Benefits of e-commerce v. Driving Forces of e-commerce (Economic, Market, Technology & Society Force)		-Assignment 1 -Case Study 1	

	b. Internet & Web
	   i. World Wide Web
	   ii. HTML
	   iii. HTTP
	
	c. Value Chain of in e-commerce
	   i. Industry value chain
	   ii. Firm value chain
	
	d. Role of e-commerce				

2	**Infrastructure for electronic Commerce**	6 HR			

	a. Internet, Intranet & Extranet
	   i. Internet & it's stages
	   ii. Uses
	   iii. Internet of Things (IOT)
	
	b. Packet Switching
	   i. TCP/IP
	   ii. Architecture of TCP/IP
	
	c. Client Server Computing
	d. The Web
	   i. Hypertext
	   ii. Markup languages
	      1. HTML
	      2. XML
	   iii. Web Client
	   iv. Web browser
	e. Internet & Connection
	   i. Email
			Assignment 1		

	ii. Instant Messaging iii. Chat & Online forum			
3	**Web Based tools for e-commerce**	4 HR		

	a. Web Server Introduction
	
	b. Web Server Hardware & architecture
	
	c. Web Server Software
	    i. Apache HTTP
	    ii. IIS
	
	d. Web Server performance evaluation
	
	e. Web Client & Web Browser
	
	f. Web Server feature			

4	**Electronic Commerce Software**	4 HR		
	a. Basic Function of e-commerce software b. Advanced Function of e-commerce software c. Web Services d. E-commerce software for small, Mid-size & high-level companies e. Packages		Assignment 1	Lab1

	f. Hosting Services			
5	**Security threats to e-commerce**	8 HR		

	a. Introduction of Security
	  i. Security threats in e-commerce Malicious code, potentially unwanted programs, phishing, hacking and cyber vandalism, credit card fraud/theft, spoofing, pharming, and spam (junk) Web sites (link farms), identity fraud, Denial of Service (DoS) and DDoS attacks, sniffing etc
	  ii. Security classification
	  iii. Security Policy
	
	b. Intellectual Property in e-commerce
	  i. Intellectual Property rights
	  ii. Intellectual Property Threats
			Assignment 1 +
			
			Case Study 1	

	1. Online
	
	2. Domain Name /IP
	
	c. Electronic Commerce Threats
	   i. Client threats
	   ii. Communication channel threats
	   iii. Server threats
	
	d. CERT Introduction			

6	**Implementing security for e-commerce**	6HR		

	a. intellectual property protection
	   i. Copyright
	   ii. Patent and
	   iii. Trademark law
	
	b. Methods of protecting Intellectual digital works
	   i. Software metering
	   ii. Digital watermarks
	   iii. Digital envelopes
	c. Transaction Integrity Overview
	
	d. Protecting Electronic Commerce Assets
	   i. Protecting
			Assignment 1	

	system's privacy, integrity, and availability
	
	e. Protecting e-commerce Server
	    i. Access control and authentication
	    ii. Operating system controls
	    iii. Firewall			

7	**Electronic Payment System**	4 HR		

	a. Overview of payment system
	
	b. Different Payment system
	
	c. Electronic Cash
	    i. ATM
	    ii. Debit Card
	    iii. Credit Card
	    iv. Prepaid Card
	    v. Smart Card
	    vi. Mobile Payment
	    vii. E Wallet
	    viii. Electronic Fund Transfer
	    ix. Cryptocurrency
	
	d. Chip Card Vs Magnetic Card
	
	e. Benefits of EPS
	
	f. Uses of Electronic Cash
			Assignment 1	

8	**Strategy for marketing Sales and Promotion**	6 HR		

	a. E-commerce marketing strategy opportunity
	
	    i. Segmentation Online
	
	    ii. Online Information **product**
	
	    iii. Online **Promotion**
	
	    iv. Online Service (**Price**)
	
	    v. Online Distribution (**Place**)
	
	b. Creating effective web essence
	
	    i. Site content
	
	    ii. Site code, columns, containers
	
	    iii. Site page identification
	
	    iv. KIS (S)
	
	c. Identifying and			

	reaching customers
	   i. Personal Contact
	  ii. Mass media
	 iii. Technology enabled relation
	
	d. Creating and Maintaining brand on web and business models
	   i. Steps of reaching target market
	  ii. Web Quality and Value
	 iii. Elements of branding
	 iv. Brand leveraging strategy
	  v. Web site naming			

9	**Strategy for purchasing and support**	4 HR		
	a. Purchasing logistic and support b. Electronic Data Interchange c. Supply chain management d. Logistic and support activities		Assignment 1 + Case Study 1	
10	**Strategy for web auction**	4 HR		
	a. Virtual communities and web portal b. Auction basics c. Web auction strategy d. Virtual communities' strategy			

11	**Environment of Electronic commerce**	4 HR		
	a. International legal b. Ethical and tax issues c. International nature of e-commerce, legal environment d. Ethical issues, taxation		Case study 1	
12	**Business plan for implementing electronic commerce**	4 HR		
	a. Planning b. Controlling c. Implementing d. Evaluation managing e-commerce		Assignment 1	
	TOTAL	60		

Laboratory Works:

The laboratory work includes developing E-commerce applications which includes categories, shopping carts, payment gateway. Students can also use open source ecommerce CMS frameworks and configure them to simulate e-commerce systems.

Reference Books:

Text / Reference Books:

1. Kenneth C. Laudon and Carol Guercio Traver, E-commerce Business Technology Society, Pearson

2. Gary P. Schneider, Electronic Commerce, Course Technology, Cengage Learning