



**Damak Multiple Campus**  
**BCA Department**  
*Weekly Work Plan*  
 Academic Year: 2081

Course Title: MIS & e-Business (3 Cr.)

Course Code: CACS301

Year/Semester: III/V

Class Load: 4 Hrs. / Week (Theory: 3Hrs. Tutorial: 1 Hr.)

Month / Year: falgun 081– shrawan 2082

S No / Week	Week / Date	Unit	Topic Covered	
			Theory	Pr.
1	11-27 To 12-8	I	<b>1. Introduction to E-Commerce : 7 hrs</b> 1. Introduction to E-Commerce (1 Hour) <ul style="list-style-type: none"> <li>• Definitions and Concepts of E-Commerce</li> <li>• Difference between E-Commerce and E-Business</li> <li>• Pure vs. Partial E-Commerce</li> </ul> 2. E-Commerce Framework and Classification (1 Hour) <ul style="list-style-type: none"> <li>• EC Framework Overview</li> <li>• Classification of E-Commerce (B2B, B2C, C2C, etc.)</li> <li>• Benefits of E-Commerce</li> </ul> 3. Electronic Markets and Internet's Role in E-Commerce (1 Hour) <ul style="list-style-type: none"> <li>• Concept of Electronic Markets</li> <li>• Role of the Internet and Web in E-Commerce</li> </ul> 4. Challenges in E-Commerce (1 Hour) <ul style="list-style-type: none"> <li>• Limitations and Barriers of E-Commerce</li> <li>• Security, Privacy, and Trust Issues</li> </ul> 5. Social Networks and Their Role in E-Commerce (1 Hour) <ul style="list-style-type: none"> <li>• Social Networks and Social Network Services</li> <li>• Impact on Business and Consumer Behavior</li> </ul> 6. Mobile Commerce (M-Commerce) (1 Hour) <ul style="list-style-type: none"> <li>• Concept, Scope, and Attributes</li> <li>• Benefits of M-Commerce</li> </ul> 7. Location-Based Commerce (1 Hour) <ul style="list-style-type: none"> <li>• Concept of Location-Based Commerce</li> </ul> Infrastructure, Services, and Applications	-

2	12-9 T0 12-17	II	<p><b>2. The Network Infrastructure for E-Commerce : 8 hrs</b></p> <p>1. Introduction to Network Infrastructure for E-Commerce (2.5 Hours)</p> <ul style="list-style-type: none"> <li>• Overview of Information Superhighway (I-Way)</li> <li>• Components of the I-Way (communication networks, databases, electronic payment systems, etc.)</li> <li>• Internet as a Network Infrastructure (architecture, protocols, and services)</li> </ul> <p>2. Wireless Application Protocol (WAP) (2.5 Hours)</p> <ul style="list-style-type: none"> <li>• Definition and Importance of WAP in mobile commerce</li> <li>• Architecture of WAP (WAP Gateway, WAP Client, WML)</li> <li>• Working of WAP (data transmission process, advantages, and limitations)</li> </ul> <p>3. Wireless Technologies for E-Commerce (3 Hours)</p> <ul style="list-style-type: none"> <li>• Broadband Technologies <ul style="list-style-type: none"> <li>○ ADSL (Asymmetric Digital Subscriber Line)</li> <li>○ WiMAX (Worldwide Interoperability for Microwave Access)</li> </ul> </li> <li>• Wireless Networks <ul style="list-style-type: none"> <li>○ WLAN (Wireless Local Area Network)</li> <li>○ WMAN (Wireless Metropolitan Area Network)</li> <li>○ Wi-Fi (Wireless Fidelity)</li> </ul> </li> <li>• Cellular Network Technologies <ul style="list-style-type: none"> <li>○ UMTS (3G - Universal Mobile Telecommunications System)</li> <li>○ LTE (4G - Long-Term Evolution)5G NR (New Radio)</li> </ul> </li> </ul>	-
3	12-17 to 12-27	III	<p><b>3. Introduction to Management Information System : 8 hrs</b></p> <p>1. Fundamentals of Information Systems (2 Hours)</p> <ul style="list-style-type: none"> <li>• Definition of Data and Information</li> <li>• Overview of Computer-Based Information Systems (CBIS)</li> <li>• Information System Resources (People, Technology, Processes, Data)</li> </ul> <p>2. Types of Management Information Systems (2 Hours)</p> <ul style="list-style-type: none"> <li>• Management Information System (MIS) – Role and Importance</li> <li>• Transaction Processing System (TPS) – Features and Applications</li> <li>• Decision Support System (DSS) – Concept and Examples</li> <li>• Executive Information System (EIS) – Benefits for Management</li> </ul> <p>3. Enterprise Systems and Business Applications (2 Hours)</p> <ul style="list-style-type: none"> <li>• Supply Chain Management (SCM) Systems – Definition, Components, and Role</li> <li>• Customer Relationship Management (CRM) Systems – Importance and Benefits</li> <li>• Enterprise Systems – Overview and Integration in Organizations</li> <li>• Challenges of Enterprise System Implementation <ul style="list-style-type: none"> <li>○ Managing the Implementation Process</li> </ul> </li> </ul> <p>4. International Information Systems and Emerging Trends (2 Hours)</p> <ul style="list-style-type: none"> <li>• Global Information Systems – Importance and Challenges</li> <li>• Outsourcing and Offshoring – Concepts and Strategic Importance&amp;Trends in International Information Systems</li> </ul>	

4	1-5 to 1-17	IV	<p><b>4. E-Commerce Security and Fraud Issues and Protection : 10 hrs</b></p> <p>1. Introduction to E-Commerce Security (2 Hours)</p> <ul style="list-style-type: none"> <li>• Basic EC Security Terminology</li> <li>• Types of Threats, Attacks, and Attackers</li> <li>• Key Security Requirements: <ul style="list-style-type: none"> <li>○ Confidentiality, Integrity, and Availability (CIA Triad)</li> <li>○ Authentication, Authorization, and Non-repudiation</li> </ul> </li> </ul> <p>2. Technical Malware Attacks (2 Hours)</p> <ul style="list-style-type: none"> <li>• Common Cyber Threats in E-Commerce: <ul style="list-style-type: none"> <li>○ Viruses, Worms, and Trojan Horses</li> <li>○ Heartbleed, Cryptblocker, and Ransomware</li> <li>○ Distributed Denial of Service (DDoS) Attacks</li> <li>○ Botnets, Malvertising, and Page Hijacking</li> <li>○ Sniffing and Other Interception Attacks</li> </ul> </li> </ul> <p>3. Non-Technical Security Threats (2 Hours)</p> <ul style="list-style-type: none"> <li>• Social Engineering-Based Attacks: <ul style="list-style-type: none"> <li>○ Phishing and Pharming</li> <li>○ Identity Theft and Fraud</li> <li>○ Spam Attacks and Fake Websites</li> </ul> </li> </ul> <p>4. E-Commerce Security Defense Strategies (2 Hours)</p> <ul style="list-style-type: none"> <li>• Access Control Mechanisms: <ul style="list-style-type: none"> <li>○ Authentication and Authorization</li> <li>○ Biometric Security Systems</li> </ul> </li> <li>• Encryption and Public Key Infrastructure (PKI): <ul style="list-style-type: none"> <li>○ Symmetric vs. Asymmetric Key Encryption</li> <li>○ Certificate Authorities (CA) and Digital Signatures</li> <li>○ Secure Socket Layer (SSL) &amp; Transport Layer Security (TLS)</li> </ul> </li> </ul> <p>5. Securing E-Commerce Networks (2 Hours)</p> <ul style="list-style-type: none"> <li>• Firewalls and Intrusion Prevention Systems (IPS)</li> <li>• Virtual Private Networks (VPNs) for Secure Transactions</li> <li>• Intrusion Detection Systems (IDS) for Threat Monitoring</li> </ul>	
5	1-18 to 1-24	V	<p><b>5. E-payment systems : 6 hrs</b></p> <p>1. Introduction to E-Payment Systems (1 Hour)</p> <ul style="list-style-type: none"> <li>• Overview of Electronic Payment Systems</li> <li>• Importance and Evolution of Online Payments</li> </ul> <p>2. Online Payment Cards (1.5 Hours)</p> <ul style="list-style-type: none"> <li>• Types of Online Payment Cards: <ul style="list-style-type: none"> <li>○ Credit , Charge , Debit, &amp; Smart Cards</li> </ul> </li> <li>• Processing Cards in Online Transactions</li> <li>• Credit Card Payment Procedure</li> </ul> <p>3. Alternative Digital Payment Methods (1 Hour)</p> <ul style="list-style-type: none"> <li>• E-Micropayments – Concept and Use Cases</li> <li>• E-Checking and Online Processing</li> <li>• Automated Clearing House (ACH) Network</li> </ul> <p>4. Mobile Payments and International Transactions (1 Hour)</p> <ul style="list-style-type: none"> <li>• Digital Wallets and Mobile Payment Systems</li> <li>• Key Mobile Payment Participants and Associated Issues</li> <li>• International Payment Systems and Cross-Border Trans.</li> </ul> <p>5. Emerging Trends in E-Payments (1 Hour)</p> <ul style="list-style-type: none"> <li>• Cryptocurrency and Blockchain-Based Payments</li> <li>• Virtual Currency and Its Challenges</li> <li>• Security and Regulatory Issues in Emerging Payment Sys.</li> </ul> <p>6. Case Study: Online Payment Trends in Nepal (0.5 Hour)</p> <ul style="list-style-type: none"> <li>• Popular Digital Payment Platforms in Nepal</li> <li>• Challenges and Future Prospects</li> </ul>	

6	1-25 to 2- 05	VI	<b>Unit 6: Launching a Successful EC Website : 10 hrs</b> 1. Planning an Online Business (2 Hours) <ul style="list-style-type: none"> <li>• Developing a Business Plan</li> <li>• Cost-Benefit and Risk Analysis</li> <li>• Funding a New Online Business</li> <li>• E-Commerce Model Selection (B2B, B2C, C2C, etc.)</li> </ul> 2. Website Development Process (2 Hours) <ul style="list-style-type: none"> <li>• Steps to Build an E-Commerce Website</li> <li>• Basic Hierarchical Website Structure</li> <li>• Website Hosting and Domain Name Registration</li> <li>• cPanel Management and Uploading EC Site to Web Server</li> </ul> 3. Web Content Creation and Management (2 Hours) <ul style="list-style-type: none"> <li>• Types of Web Content and Categories</li> <li>• Content Management and Maintenance</li> <li>• Catalog Content and Its Management</li> </ul> 4. Website Design and User Experience (2 Hours) <ul style="list-style-type: none"> <li>• Website Design Criteria (Aesthetics &amp; Functionality)</li> <li>• Site Map, Navigation, and Web Page Layout Grid</li> <li>• Color Schemes, Graphics, and Responsive Design</li> <li>• Website Usability and Performance Optimization</li> </ul> 5. Website Promotion and Payment Integration (2 Hours) <ul style="list-style-type: none"> <li>• Implementing Payment Systems on EC Websites</li> <li>• Search Engine Optimization (SEO) Strategies</li> <li>• Website Promotion Techniques (Social Media, Digital Marketing)</li> </ul>	
7	2-06 onwar d		Lab works/ presentations and evaluations	

Coordinator's Remarks: .....

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Subject Teachers

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Coordinator Sign

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Asst. Campus Chief

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Campus Chief

## List of Assignment to be Given

### Unit 1

1. Write in brief about : E-commerce and E-business.
2. Have you done shopping online? How do you think about its working?
3. Write down the differences between
  - i. Ecommerce and E business
  - ii. Traditional commerce and E-commerce
  - iii. Pure and partial EC
4. Write down the differences between EC and traditional commerce practice.
5. Write down the benefits of EC.
6. Define “pull type” supply management.
7. What are the types of EC? Explain them.
8. Explain Social network and Social Networking services.
  - a. Write down differences between B2C, B2B, and C2B with example
9. Explain m-commerce. List the reasons for the growth of popularity of m-commerce.
10. Write down the scope, advantages and disadvantages of M-commerce.
11. Explain L-commerce.
12. List its applications
13. Explain the infrastructure of L-commerce

### Unit 2

1. Explain
  - a. Digital Subscriber Line (DSL)
  - b. Asymmetric Digital Subscriber Line (ADSL)
  - c. Symmetric digital subscriber line (SDSL)
  - d. Cable Connection
  - e. Fiber-optics
  - f. T1
  - g. T2
  - h. WAN
  - i. LAN
  - j. MAN
2. Explain WAP. With its architecture and working.
3. Explain the Network as an Infrastructure for information carriers.
4. Explain
  - a. 4G
  - b. 3G
  - c. security issues related to wireless technology
  - d. WiMAX
  - e. WiFi
  - f. WAN vs WWAN
  - g. LAN vs WLAN

### Unit-3

1. Differentiate between data and information with suitable example.
2. Define CBIS and explain its resources.
3. Explain the functions of CBIS
4. What do you mean by information system? Explain the characteristics of information.
5. Define CBIS. And explain its types.
6. Write down the differences between MIS and TPS.
7. Explain TPS with an example.
8. Differentiate between DSS and ESS.
9. Explain CSM, CRM, KMS
10. Differentiate between offshoring and outsourcing
11. What types of companies most likely to adopt cloud based ERP and CRM Softwares? What companies might not well-suited for this type of software?
12. What are the challenges in implementing ERP application? How these challenges can be addressed?
13. *Which enterprise application should a business install first: ERP, SCM or CRM? Explain your answer.*

### Unit 4

1. Define Network security and Explain its goal with example
2. Explain the different types of technical and non technical attacks/
3. What is ransomware? How can you defend it?
4. Explain DOS attack.
5. Differentiate between sniffing and phishing?
6. Differentiate between virus and worm
7. Explain the vulnerable points in EC environment.
  
8. What do you mean by authentication and authorization? Differentiate between them
9. Why firewall is required in organization?
10. List the limitations of the firewall and explain the types of firewall in brief
11. Explore antivirus software and explain its working mechanism.
12. Differentiate between symmetric and asymmetric cryptography.
13. How does digital signature work explain with the figure.
14. Explain SSL with its working mechanism
15. Differentiate between a digital signature and a digital certificate.
16. What is technical attack? Explain any 5 technical attacks on EC
  
17. Define digital signature and explain its requirement in secure transactions.
18. What is the working mechanism of digital signature?
19. Explain how can you secure EC network.
20. Explain VPN (define, write its working mechanism, benefits etc)
  
21. What is SSL? Discuss its working
22. What is PKI?
23. Define cryptography. Discuss its types.
24. **How does digital signature with public key cryptography work**
25. **what do you mean by third party authentication?**
26. Explain
  - a. CA
  - b. digital certificates vs digital signature

## **unit 5**

1. Differentiate between fiat, digital, and virtual currencies.
2. What are the types of virtual currencies? Discuss them.
3. What is bitcoin? What are its features, advantages, and disadvantages?
4. Discuss some of the competitors of bitcoin.
5. What do you think about the reasons for banning bitcoin trading in Nepal?
6. What do you mean by digital wallet? What are the types of digital wallets?
7. Who are the mobile participants? What kinds of issues do they face?
8. What do you mean by an international payment system? Explain its significance.
9. Write short notes on
  - b. Visa
  - c. Mastercard
  - d. AmEx
  - e. Discover cards
9. What is PayPal? What can you do with a PayPal account, and what types of benefits you can get from it?