

Kathmandu University School of Management
Bachelor of Business Administration
Course Syllabus

CourseTitle		BUSINESSDATA COMMUNICATIONS
Course CodeNumber		COM334
CreditHours		3
Nature ofCourse		Theory andPractical
CourseObjective		
MainObjective		The objective of the course is to develop understanding about data communication as it applies to business and its technology and application related issues. The course aims to enable the participants design simple and complex business data communication networks.
LearningUnit		
Learning UnitOne Net Contact Hours - 4hrs		1. Introduction Information and Communication, Data Communications and Networking for Today's Enterprise, Convergence and Unified Communications, The Nature of Business Information Requirements, Distributed Data Processing, The Internet and Distributed Applications, Networks, The Transmission of Information, Management Issues, Standards.
Learning UnitTwo Net Contact Hours - 4hrs		2. Business Information and Distributed Data Processing Audio, Data, Image, Video, Performance Measures, Centralized Versus Distributed Data Processing, Forms of Distributed Data Processing, Distributed Data, Networking Implication of DDP, Big Data Infrastructure Consideration.
Learning UnitThree Net Contact Hours - 12hrs		3. The Internet and Distributed Applications
Learning Unit3	3.1 NetContact Hours - 3hrs	3.1 Internet History and Architecture Internet History, Internet Architecture, Internet Domains, The Structure of The Internet, Internet Access Technologies, The Future of The Internet.
Learning Unit3	3.2 NetContact Hours - 3hrs	3.2 TCP / IP and OSI A Simple Protocol Architecture, The TCP/IP Protocol Architecture, Internet networking, TCP and IP details, The OSI Protocol Architecture.
Learning Unit3	3.3 NetContact Hours - 3hrs	3.3 Distributed Applications Electronic Mail: SMTP and MIME, Web Access and HTTP, Internet Telephony and SIP, Electronic Data Interchange, Telnet, Instant Messaging, Video conferencing.
Learning Unit3	3.4 NetContact Hours - 3hrs	3.4 Client Server, Intranet and Cloud Computing The Growth of Client / Server Computing, Client / Server Applications, Middleware, Intranets, Extranets, Cloud Computing and its Importance.
Learning UnitFour Net Contact Hours - 8hrs		4. Data Communications
Learning Unit4	4.1 NetContact Hours - 3hrs	4.1 Data Transmission Signals for Conveying Information, Transmission Impairments and Channel capacity, Electromagnetic Signals, Analog Signals, Digital Signals, Guided Media, Unguided Media.

Learning Unit4	4.2 NetContactH ours - 3hrs	4.2 TransmissionMedia Twisted Pair Cable, Coaxial Cable, Fiber Optic Cable, Microwave, Satellite,OpticalFiberVersusSatelliteCommunication, Radio, Infrared.
Learning Unit4	4.3 NetContactH ours - 2hrs	4.3 DataCommunicationFundamentals Analog and Digital Data Communications, Data Encoding Techniques,AsynchronousandSynchronousTransmission,ErrorDetection.
Learning UnitFive Net Contact Hours - 6hrs		5. Networks
Learning Unit5	5.1 NetContactH ours - 3hrs	5.1 LocalAreaNetworkTechnology Background, LAN Configuration, Topologies and Transmission Media, LAN Protocoland Architecture, Bridges, Hub and Switches, Wireless LAN Overview, IEEE802.11WirelessLANStandards,Bluetooth.
Learning Unit5	5.2 NetContactH ours - 3hrs	5.2 WideAreaNetworkTechnology Cellular Wireless Networks, Third Generation Wireless Communication,FourthGeneration Wireless Communications, Satellite Communications, VPNBasicArchitecture andTypes.
Learning UnitSix Net Contact Hours - 6hrs		6. ManagementIssues
Learning Unit6	6.1 NetContactH ours - 4hrs	6.1 ComputerandNetworkSecurityThreats Computer Security Concepts, Threats, Security Requirements and Attacks,Intruders,Malicious Software Overview, Message Authentication and Hash Function, PublicKeyEncryption and Digital Signature, Viruses, Worms, Bots and Spam,Keyloggers,Phishing,Spyware,ComputerSecurityTrends.
Learning Unit6	6.2 NetContactH ours - 2hrs	6.2 ComputerandNetworkSecurityTechniques Virtual Private Networks and IPSec, Wi-Fi Protected Access, IntrusionDetection,Firewalls,MalwareDefense.
Learning UnitSeven Net Contact Hours - 8hrs		7. PracticumSession <ol style="list-style-type: none"> 1. Cabling andTesting. 2. BasicNetworkCommands. 3. ADSL/DSLRouterConfiguration. 4. HandlingFTP. 5. DemonstrationofWebServer. Note:QuestionsfromthisunitwillnotbeaskedinWrittenEndSemesterExam.
Total Contact Hours		48hrs(ExcludingAssessmentandFinalExamination)
BasicText		<ol style="list-style-type: none"> 1. WilliamStallings (2005),<i>Business Data Communications</i>, 5thEdition, PearsonEducation. 2. William Stallings (2007), <i>Data and Computer Communications</i>, 8thEdition,PearsonEducation.
OtherReferences		<ol style="list-style-type: none"> 1. Jerry Fitzgerald, Alan Dennis, Alexandra Durcikova (2012), <i>Business Data CommunicationsandNetworking</i>, 11thEdition, Wiley. 2. Douglas E.Comer (2009), <i>Computer Networks and Internet</i>, 5thEdition, PearsonEducation.

EvaluationScheme	In-Semesterevaluation	50%
	IncludingLabWorkEnd-Semester evaluation	50%
	Total	100%

Updated February 2017