



Re-Accredited by NAAC with 'A' Grade
VEER NARMAD SOUTH GUJARAT UNIVERSITY
University Campus, Udhna-Magdalla Road, SURAT - 395 007, Gujarat, India.

વીર નર્મદ દક્ષિણ ગુજરાત યુનિવર્સિટી
યુનિવર્સિટી કેમ્પસ, ઉદ્ધના-મગદલ્લા રોડ, સુરત - ૩૯૫ ૦૦૭, ગુજરાત, ભારત.

Tel : +91 - 261 - 2227141 to 2227146, Toll Free : 1800 2333 011, Fax : +91 - 261 - 2227312
E-mail : info@vnsgu.ac.in, Website : www.vnsgu.ac.in

-: પરિપત્ર :-

યુનિવર્સિટી સંલગ્ન તમામ સ્નાતક કોલેજોનાં આચાર્યશ્રીઓને જણાવવાનું કે, શૈક્ષણિક વર્ષ ૨૦૨૧-૨૨ થી અમલમાં આવનાર રાષ્ટ્રીય શિક્ષણ નીતિ-૨૦૨૦ અંતર્ગત પ્રવર્તમાન સ્ટેચ્યૂટ તથા ઓર્ડીનન્સમાં કરવાના થતા ફેરફારોનો મુસ્દો તૈયાર કરવા તથા રાષ્ટ્રીય શિક્ષણ નીતિ-૨૦૨૦ ના અમલીકરણ અંગે જરૂરી નિર્ણયો/ ભલામણો કરવા કોમ્પ્યુટર સાયન્સ એન્ડ ઈન્ફોર્મેશન વિદ્યાશાખા તથા કોમ્પ્યુટર સાયન્સ એન્ડ ઈન્ફોર્મેશન વિદ્યાશાખા અંતર્ગત તમામ અભ્યાસસમિતિની ઓનલાઈન જોઈન્ટ મીટીંગ તા. ૧૫/૦૭/૨૦૨૧ ની સભાનાં ઠરાવ ક્રમાંક: ૩ થી NEP 2020 ને અનુલક્ષીને નીચે મુજબ ઠરાવવામાં આવેલ છે જે અંગે એકેડેમિક કાઉન્સિલમાં વિચારણા કરતા એકેડેમિક કાઉન્સિલની તા. ૩૧/૦૭/૨૦૨૧ની સભાનાં ઠરાવ ક્રમાંક: ૨૨ અન્વયે સ્વીકાર કરી સિન્ડિકેટને કરેલ ભલામણ સિન્ડિકેટને તેની તા. ૧૧/૦૮/૨૦૨૧ની સભાના ઠરાવ ક્રમાંક: ૨૦ થી નીચે મુજબ મંજૂર કરેલ છે. તેની સંબંધકર્તા શિક્ષકોને અને વિદ્યાર્થીઓને કરવી. તદઉપરાંત તેનો અમલ કરવો.

કોમ્પ્યુટર સાયન્સ એન્ડ ઈન્ફોર્મેશન વિદ્યાશાખા તથા કોમ્પ્યુટર સાયન્સ એન્ડ ઈન્ફોર્મેશન વિદ્યાશાખા અંતર્ગત તમામ અભ્યાસસમિતિની ઓનલાઈન જોઈન્ટ મીટીંગ તા. ૧૫/૦૭/૨૦૨૧ ની સભાનાં ઠરાવ ક્રમાંક: ૩

- :: આથી ઠરાવવામાં આવે છે કે, NEP-2020 ને અનુલક્ષીને કોમ્પ્યુટર સાયન્સ અને ઈન્ફોર્મેશન ટેકનોલોજી વિદ્યાશાખા દ્વારા વિવિધ અન્ય વિદ્યાશાખાઓના વિદ્યાર્થીઓને વૈકલ્પિક વિષયો તરીકે ઓફર કરી શકાય તેવા ત્રણ ક્રેડીટના (Multi disciplinary subjects offered to Students of Other Faculties as an elective subject of 3 credits) નીચે યાદી મુજબ તૈયાર કરી એકેડેમિક કાઉન્સિલને આગળની કાર્યવાહી માટે ભલામણ કરવામાં આવે છે.

No.	Subject Name
1	Introduction to DBMS
2	Web Designing Concepts
3	Basics of Artificial Intelligence
4	Fundamentals of Computers and Hardware
5	Office Automation Tools
6	Introduction to Internet and Cyber Security
7	E-Commerce
8	Block Chain Concepts

એકેડેમિક કાઉન્સિલ તા. ૩૧/૦૭/૨૦૨૧ની સભાનાં ઠરાવ ક્રમાંક: ૨૨


- :: આથી ઠરાવવામાં આવે છે કે, રાષ્ટ્રીય શિક્ષણ નીતિ-૨૦૨૦ સદર્ભે કોમ્પ્યુટર સાયન્સ એન્ડ આઈ.ટી.વિદ્યાશાખા અંતર્ગત જેનેરીક ઈલેક્ટીવ વિષયોનો અભ્યાસક્રમ સ્વીકારી તે અંગે સિન્ડિકેટને ભલામણ છે.

સિન્ડિકેટની તા.૧૧/૦૮/૨૦૨૧ની બાબત ઠરાવ ક્રમાંક: ૨૦

- :: આથી ઠરાવવામાં આવે છે કે, એકેડેમિક કાઉન્સિલ તા.૩૧/૦૭/૨૦૨૧ની સભાનાં ઠરાવ ક્રમાંક: (૨૨) થી કરેલ ઉપરોક્ત ભલામણ અન્વયે રાષ્ટ્રીય શિક્ષણ નીતિ-૨૦૨૦ સદર્ભે કોમ્પ્યુટર સાયન્સ એન્ડ આઈ.ટી.વિદ્યાશાખા અંતર્ગત સ્નાતક કક્ષાએ જેનેરીક ઈલેક્ટ્રીવ વિષયોનો અભ્યાસક્રમ મંજૂર કરવો.

(બિડાણ: ઉપર મુજબ)

ક્રમાંક : એકે./પરિપત્ર/૧૨૫૪૨/૨૦૨૧
તા. ૧૯-૦૮-૨૦૨૧


ઈ.યા. કુલસચિવ

પ્રતિ,

૧)યુનિવર્સિટી સંલગ્ન તમામ સ્નાતક કોલેજોના આચાર્યશ્રીઓ.

૨)અધ્યક્ષશ્રી, તમામ વિદ્યાશાખા.

૩)પરીક્ષા નિયામકશ્રી, પરીક્ષા વિભાગ, વીર નર્મદ દ. ગુ. યુનિવર્સિટી, સુરત.

.....તરફ જાણ તેમજ અમલ સારૂ.

39/09/2022
 22
 सिन्डिकेट नं. एए/सी/2022

EC-01 Introduction to DBMS

भाषित : विभागा :

Course Code	EC-01
Course Title	Introduction to DBMS
Credit	3
Teaching per Week	3 Hrs
Minimum weeks per Semester	15 (Including Class work, examination, preparation, holidays etc.)
Purpose of Course	To introduce the basic concepts of database management system that includes data models, database design and basic practical of open source DBMS.
Course Objective	To teach fundamental concepts of DBMS including data models, ER diagram, different types of databases. This course also entails practical aspect of open source database.
Pre-requisite	Fundamentals of Computer, Programming Language
Course Out come	Students will be able to understand and implement basic database design principles, learn overview of different types of database. Students will also be able to perform practical on database.
Course Content	<p>Unit : 1 : Basic Concepts of DBMS: File Organization and Traditional File based System Database and Need for DBMS Characteristics of DBMS Applications of DBMS Views of Data - Schema and instances</p> <p>Unit : 2 : Data Independence: Data Independence Database Languages Transaction Management ACID Properties of Transaction Database Administrator and Database Users Overall System Architecture</p> <p>Unit : 3 : Introduction to Open Source Database - MySQL 2.1 Getting Started with MySQL 2.2 Installing MySQL 2.3 Data Types 2.4 Creating and Using Database</p> <p>Unit : 4 : DDL commands: 4.1 DDL Statements 4.1.1 Create Table 4.1.1.1 Constraints 4.1.1.2 Primary Key and Foreign Key Constraint 4.2.2 Alter Table 4.2.3 Delete Table</p> <p>Unit : 5 : DML Statements and Other Functions of MySQL 5.1 DML Statements 5.1.1 Insert Statement 5.1.2 SQL 5.1.3 Select Statement 5.1.4 Update Statement 5.1.5 Delete Statement 5.2 Aggregate Functions 5.3 Numerical Functions 5.4 String and Character Functions</p>

Reference Book	<ol style="list-style-type: none"> 1. Database System Concepts : Silberschatz, Korth and Sudarshan - McGraw Hill 2. An introduction to database systems : C. J. Date - Addison Welsley 3. Fundamentals of Database Systems : Elamsri, Navathe, Somayajulu and Gupta- Pearson Education 4. PHP and MySQL Web Development (Developer's Library) : Luke Welling - Addison - Wesley Professional 5. The Complete Reference MySQL : Vikram Vaswani - McGraw Hill 6. Murach's MySQL : Joel Murach - Mike Murach & Associates, Inc.
Teaching Methodology	Lectures, Discussion, Independent Study, Seminars, Case Study and Assignment
Evaluation Method	30% Internal assessment 70% External assessment

Course Code	EC-02
Course Title	Basics of Artificial Intelligence
Credit	3
Teaching per Week	3 Hrs
Minimum weeks per Semester	15 (Including Class work, examination, preparation etc.)
Medium of Instruction	English
Purpose of Course	After learning the course the students should be able to <input type="checkbox"/> Understand various search methods <input type="checkbox"/> Use various knowledge representation methods <input type="checkbox"/> Understand various Game Playing techniques
Course Objective	1. To understand concepts of AI and the its skills and give initial exposure of Artificial Intelligence to the students. 2. Motivate students for further study to take up careers as AI scientists and developers to solve complex real world problems
Pre-requisite	<ul style="list-style-type: none"> • Basic Knowledge of Analytical Skill • Basic understanding about Algorithm
Course Out come	Apply the basic principles, models and algorithms of AI to recognize and solve problems in the analysis and design of information system.
Course Content	<p>Unit 1: Introduction to AI</p> <p>1.1 What is AI? 1.2 History of AI 1.3 What is Machine Learning 1.4 Difference between conventional programming and machine learning 1.5 How is Machine learning related to AI? 1.6 What is data? 1.6.1 Structured 1.6.2 Unstructured 1.6.3 Examples of unstructured data- text, images</p> <p>Unit 2. Terminology and Related Concepts</p> <p>2.1 Machine learning .. 2.2 Supervised learning (examples) 2.3 Unsupervised learning (examples) 2.4 Deep learning 2.5 Reinforcement learning 2.6 Machine Learning Techniques and Training 2.7 Neural Networks</p> <p>Unit 3. : AI Applications and Characteristics</p> <p>3.1 Application in AI 3.1.1 Chatbots (Natural Language Processing, speech) 3.1.2 Alexa, Siri and others 3.1.3 Computer vision 3.1.4 Weather Predictions 3.1.5 Price forecast for commodities 3.1.6 Self-driving cars</p>

	<p>Unit 4. Methodologies and Characteristics</p> <p>4.1 Cognitive Computing</p> <p>4.1.1 Perception</p> <p>4.1.2 Learning</p> <p>4.1.3 Reasoning</p> <p>3.2 Characteristics and types of AI</p> <p>3.2.1 Data driven</p> <p>3.2.2 Autonomous systems</p> <p>3.2.3 Recommender systems</p> <p>3.2.4 Human like</p> <p>Unit 5. Data Analysis</p> <p>5.1 Types of structured data</p> <p>5.1.1 Date and time</p> <p>5.1.2 String</p> <p>5.1.3 Categorical</p> <p>5.2 Representation of data</p> <p>5.3 Exploring Data (Pattern recognition)</p> <p>5.4 Cases, variables and levels of measurement</p>
Reference Books	<p>1. The Essence of Artificial Intelligence (Paperback) by Alison Cawsey Publisher: Prentice Hall</p> <p>2. A First Course in Artificial Intelligence by Deepak Khemani, McGrawHill, ISBN : 978-1-25-902998-1</p> <p>3. Introduction to Artificial Intelligence and Expert System by Dan W. Patterson, PHI, ISBN : 978-93-325-5194-7</p> <p>4. Artificial Intelligence –A Modern Approach (2nd Edition 2004) by Stuart J. Russell and Peter Norvig, Pearson Education, ISBN: 978-81-775-8367-0</p> <p>5. Introduction to Artificial Intelligence by RajendraAkerkar, PHI, ISBN : 978-81-203-2864-8</p>
Teaching Methodology	Class Work, Discussion, Self-Study, Seminars and/or Assignments
Evaluation Method	30% Internal assessment.70% External assessment.

Course : Block chain Concepts

Course Code	EC-03
Course Title	Blockchain Concepts
Credit	3
Teaching per Week	3 Hrs
Minimum weeks per Semester	15 (Including Class work, examination, preparation, holidays etc.)
Last Review / Revision	
Purpose of Course	To understand the concepts of Blockchain and its use in various fields
Course Objective	To study the basics of Blockchain technology. During this course learner will explore various aspects of Blockchain technology like application in various domains. By implementing learner will have idea about popular blockchain applications like Bitcoin and Ethereum
Pre-requisite	Basic Understanding of Programming and Security
Course Out come	After the completion of this course, student will be able to Understand and explore the working of Blockchain technology , Working Bitcoin and Ethereum Cryptocurrencies . The student can also visualize the use of block chain in various spheres of business and governance
Course Content	<p>Unit 1 Introduction of Blockchain</p> <ul style="list-style-type: none"> • What is a Blockchain, • Objective of Blockchain, • Peer to Peer Networks • Public key cryptography, • Hashing and Digital Signatures, • How Blockchain works • Advantages of Blockchain <p>Unit 2 Bitcoin Blockchain</p> <ul style="list-style-type: none"> • What is Bitcoin, • Working of Bitcoin cryptocurrency • The Bitcoin transaction ledger • The Bitcoin Block • The Bitcoin Mining Process, • Proof of Work • Bitcoin Wallets, <p>Unit 3 Ethereum Block Chain</p> <ul style="list-style-type: none"> • Introduction to Ethereum, • Working of Ethereum Cryptocurrency • Ethereum Structure • Smart Contracts • Ether and Gas Points • Ethereum Incentive Model • Ethereum Operations • Proof of Stake • Ethereum Wallets <p>Unit 4 : Blockchain Trust Essentials</p> <ul style="list-style-type: none"> • Decentralized Systems • Consensus Protocol • Robustness • Forks <p>Unit 5 : Blockchain Applications</p> <ul style="list-style-type: none"> • Blockchain in Business • Blockchain in Governance • Introduction to Dapps • Future of Blockchain
Reference Book	1. Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller and

	<p>Steven Goldfeder, Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction, 2. Princeton University Press (July 19, 2016).Antonopoulos, Mastering Bitcoin. 3. Antonopoulos and G. Wood, Mastering Ethereum. 4. D. Drescher, Blockchain Basics. Apress, 2017.</p> <p>Supplementary Resources:</p> <ol style="list-style-type: none"> 1. NPTEL online course : https://nptel.ac.in/courses/106/104/106104220/# 2. UdeMy: https://www.udemy.com/course/build-your-blockchain-az/ 3. EDUXLABS Online training :https://eduxlabs.com/courses/blockchain-technologytraining/?tab=tab-curriculum
Teaching Methodology	Lectures, Discussion, Independent Study, Seminars and Assignment
Evaluation Method	30% Internal assessment 70% External assessment

Course : E-Commerce

Course Code	
Course Title	E-Commerce
Nature of Subject:	Theory only
Teaching per week:	2 hrs
Minimum Week per Semester	15 (Including Class work, examination, preparation etc.)
Review/Revision	July 2021
Purpose of Course	This course imparts the knowledge of Electronic commerce, online order processing concepts and related threats. The concepts of electronic transactions, e-commerce framework, related security issues and threats are covered in this course.
Course Objective	To make students understand concepts of e-commerce framework. To make students understand concepts of types of online transactions. To make students understand the basic concepts of security issues pertaining to e-commerce.
Pre-requisite	none
Course Out come	At the end of the course, student is expected to have clear concepts about the e-commerce, types of e-commerce, e-commerce framework, security issues pertaining to e-commerce,
Course Content	<p>Unit 1: Overview of E-Commerce</p> <p>1.1 What is E-Commerce?</p> <p>1.2 Aims of E-Commerce</p> <p>1.3 E-Commerce framework</p> <p>Unit 2: E-Commerce Business Models</p> <p>2.1 Business Models for E-Commerce (B2B, B2C, B2B, C2C, C2G, G2G, B2G)</p> <p>2.2 m-Commerce</p> <p>2.3 E-Commerce organization applications</p> <p>Unit 3: Network Infrastructure of e-Commerce</p> <p>3.1 What is Information Way?</p> <p>3.2 Components of I-Way.</p> <p>3.2.1 Network access equipment</p> <p>3.2.2. local on-ramps</p> <p>3.2.3. Global information distribution network</p> <p>Unit 4: Electronic payment systems & Security issues</p> <p>4.1 Security on the Web</p> <p>4.2 Types of Payment Systems</p> <p>4.2.1 Debit card, Credit Card, Smart Card, E-Wallet, Net Banking, Mobile Payment, Electronic Fund Payment</p> <p>4.2.2 EPS</p> <p>4.3 EDI</p> <p>Categories of Internet data and transactions</p> <p>Unit 5: Digital Signatures</p> <p>5.1 Legal positions of Digital Signatures, Procedure & working of Digital Signature technology,</p> <p>5.2 E-Payment and Risk: Data Protections, risk from mistakes and disputes, Consumer protection, Management Information Privacy, Managing Credit Risk</p>
Reference Books	<p>1. E- Commerce an Indian Perspective—Joseph- PHI</p> <p>2. Electronics Commerce : A Managerial Prespective – Efraim Turban, Jae Lee</p> <p>3. Frontiers of Electronic Commerce, Ravi Kalakota and Andrew Whinston, Addition Wesley</p>

Teaching Methodology	Class Work, Discussion, Self-Study, Seminars and/or Assignments
Evaluation Method	30% Internal assessment. 70% External assessment.

Course: Introduction to Internet and Cyber Security

Course Code	
Course Title	Introduction to Internet and Cyber Security
Credit	3
Teaching per Week	3 Hrs
Minimum weeks per Semester	15 (Including Class work, examination, preparation, holidays etc.)
Last Review / Revision	June 2017
Purpose of Course	The course gives students basic Understanding of Internet and Cyber Security
Course Objective	To provide fundamental knowledge of Internet and Cyber Security Forensics.
Pr-requisite	Fundamental Knowledge of Computer
Course Out come	After completion of this course, the student will gain basic knowledge of Internet and Cyber security and aspects related to it.

<p>Course Content</p>	<p>Unit 1 Introduction to Internet</p> <ul style="list-style-type: none"> 1.1 History of Internet 1.2 Internet Terminology <ul style="list-style-type: none"> 1.2.1 Network, Client-Server, TCP/IP, HTTP, Modem, Router, Blue tooth, Fire-Stick, Hot-Spot, WiFi 1.3 Domain Name System and IP Address 1.4 World Wide Web and its working 1.5 Web browser and its Types <ul style="list-style-type: none"> 1.5.1 URL, Address bar Links, Navigations Button 1.6 Email and its Working <p>Unit 2 Introduction to Cyber Crime</p> <ul style="list-style-type: none"> 2.1 Introduction of cybercrime:- Definition, Cyber Crime and Information Security, 2.2 Types and Category of Cyber Crime 2.3 Techniques of CyberCrimes <ul style="list-style-type: none"> 2.3.1 E-Mail Spoofing, Spamming, Cyber defamation, Salami Attack, Data diddling, Hacking, Online fraud, Software Piracy, computer Sabotage, Email Bombing, Computer Network Intrusions, Password Sniffing, Credit CardFrauds, phishing, spamming, Cyber Squatting, Cyber or Ferrisom , Logicbomb , Web-Jacking, 2.4 How Criminal Plans Attacks <ul style="list-style-type: none"> 2.4.1 Reconnaissance Attack, Passive Attack, Active Attack 2.5 Hackers , Cracker and Types of Hackers <p>Unit 3: Cyber Security Techniques-Basics</p> <ul style="list-style-type: none"> 3.1 Introduction to – Authentication, Encryption, Digital Signature, Antivirus, Firewall 3.3 Browser and email Security <ul style="list-style-type: none"> 3.2.1 Guideline to choose browser 3.2.2 Securing web Browser 3.3.3 Email Security 3.4 Password and Wi-Fi Security <ul style="list-style-type: none"> 3.4.1 Tips of seeking secure password 3.4.2 Strong weak and Random Passwords 3.4.3 Two Steps Authentication 3.4.4 Wi-fi security 3.5 Basic Security for Windows and User account Password
-----------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>Unit 4 Cyber Security in Social Media, Smartphone, Online Banking</p> <p>4.1 Social Media Security</p> <p>4.1.1 Tips and best practice for Social Networking</p> <p>4.2 Smart phone Security</p> <p>4.2.1 Smart Phone security Guideline</p> <p>4.2.2 Smart phone setup</p> <p>4.2.3 Communicating, Email, SMS from Smartphone</p> <p>4.2.4 Accessing Internet and capturing media with Smartphone</p> <p>4.3 Online Banking Security</p> <p>4.3.1 Online Banking Security</p> <p>4.3.2 Mobile Banking Security</p> <p>4.3.4 Security of Debit Card, Credit Card, UPI</p> <p>4.3.5 Security of ATM</p> <p>4.3.6 Security of POS, E-wallet</p> <p>Unit 5: Cyber Security Threats and IT Acts</p> <p>5.1 Cyber Security Threats</p> <p>5.2. Cyber Security Initiative in India</p> <p>5.3 Basics of IT Act</p>
Reference Book	<ol style="list-style-type: none"> 1 . Cyber Security Understanding cyber crimes computer forensics and legal Perspectives by Nina Godbole , Sunit Belapur by Wiley India Publications . 2. Internet Forensic Using Digital Evidences to Solve Computer Crime by Robert Jones O'Reilly October 2005. 3 . Windows Forensic The Field Guide for conducting Corporate computer Investigations by Chad Steel Wiley India Publications. 4. Digital Evidence and Computer Crime by Eoghan Casey Academic Press 2011 3rd Edition 5. Cyber Crimes and Fraud Management by Mr. Petrick Kishore, macmillan education 6. Introduction To Cyber Security By Jeetendra Pande -2017 Published by Uttarakhand Open University ISBN – 978-93-8413-963 7. Computer Network Security and Cyber Ethics – E-Book By Joseph, Migga, Kizza 4th Edition, -2014 MCFarland and Company Publisher - ISBN -978-1-4766-1560-8 8. Cyber Security For Beginners – From www.heimdalsecurity.com 9. Cyber Criminology- Exploring Internet Crimes Behaviour – Edited By K Jaishankar CRC Press Taylor and Francis Group 10 Internet 6 in 1 By Joe Karyuak and Harbraken - PHI 11 Computer and Internet Basics Step by Step – End the clutter ETC – Infinite Publishing
Teaching Methodology	Classroom Discussion, Independent Study, Seminars / Assignment
Evaluation Method	<p>30% Internal assessment is based on class attendance, participation, class test, quiz, assignment, seminar, internal examination etc.</p> <p>70% assessment is based on end semester written examination</p>

Course: Office Automation Tools

Course Code :	-
Course Title :	Office Automation Tools
Course Credit :	3
Total Teaching :	20 Hrs
Review :	July 2021
Purpose of Course:	Use of modern office equipment in business or any office is intended to facilitate faster processing and delivery of information, accurate analysis of facts and figures, higher efficiency and productivity. Office Automation Tools help in Word processing, managing Worksheets and preparing Presentations there by eliminate fatigue arising from performing repetitive jobs manually.
Course Objective:	The objective of this course is to make students understand and learn various Office Automation Tools like Word processor, Spreadsheet program & Presentation program.
Pre-requisite:	Basic Knowledge of Computers
Course outcome:	The students will be able to use various Office Automation Tools like Word processor, Spreadsheet software & Presentation software in their day-by-day office work.
Course Content:	Unit-1. Introduction <ul style="list-style-type: none">1.1. Concept of Windows, Icon, Menu1.2. Desktop1.3. Creating Folders and Shortcuts1.4. Finding Files & Folders1.5. Creating, Copying, Moving and Deleting files1.6. Windows Explorer1.7. Basic DOS Commands Unit-2. Word Processor Software <ul style="list-style-type: none">2.1. Typing, Editing, Proofing & reviewing2.2. Formatting text & Paragraph2.3. Automatic Formatting and Styles2.4. Working with Tables2.5. Graphics and Frames2.6. Mail Merge

Unit-3. Spreadsheet Software

- 3.1. Concept of worksheet
- 3.2. Working & Editing in Workbooks
- 3.3. Creating Formats & Links
- 3.4. Protecting and Hiding data
- 3.5. Built-in Functions (Mathematical, Statistical, String & Date)
- 3.6. Formatting a Worksheet
- 3.7. Creating Charts (Graphics), Formatting and Analysing data
- 3.8. Organizing Data in a List (Data Management)
- 3.9. Printing

Unit-4. Presentation Software

- 4.1. Creating and Editing Slides
- 4.2. Creating and Editing objects in the slide
- 4.3. Animation
- 4.4. Creating and Running Slide Show
- 4.5. Templates

Unit5. Internet

- 5.1. Concepts
- 5.2. Working
- 5.3. Mailing & surfing tools
- 5.4. Online Data Backup

Reference Books:

1. OpenOffice.org For Dummies - urdy Leete, Ellen Finkelstein, Mary Leete-Wiley Publication
2. Beginning Open Office3: From Novice to Professional-Andy Channelle-Apress Publication
3. The OpenOffice.org 2 Guidebook -Solveig Haugland
4. Taming Apache Open Office: Getting Started-Jean Hollis Weber
-Friends of Open Document Inc.
5. Open Office Basic:An Introduction - James Steinberg-Gold Turtle Publication
6. PC Software for Windows 2003 Made Simple,- RKTaxali,-TMH
7. 2007 Microsoft Office System Plain & Simple, Joyce & Moon,-PHI
8. Internet 6in 1 -Joe Krayuak & Harbraken, PHI
9. Introduction to Computer Science- Pearson Education - Publication
10. Introduction to Computers - Peter Norton - The McGraw-Hill Publication

Teaching Methodology:

Class Work, Discussion, Self-Study, Seminars and/or Assignments

Evaluation Method:

30% Internal assessment.
70% External assessment.

Course : Fundamentals of Computers and Hardware

- Course Code:** -
- Course Title:** Fundamentals of Computers and Hardware
- Total Credits :** 3
- Total Teaching Hours:** 20 Hours
- Review Year:** July, 2021
- Purpose of Course:**
- Concepts and types of computer and various hardware technologies relevant to computer as and its important peripherals will be covered.
 - Introduction of computer internal memories, exposure of various input and output devices as well as concepts of Internet and cloud.
- Course Objective:** Objective is to provide knowledge of functional units, Devices , memory & its storage devices and Introduce concept of Internet and cloud.
- Pre-requisite:** Nill
- Course Outcome:** After studying this subject, students will get knowledge of functional units devices, memory & storage devices. Students will also get concept of internet and cloud.

Course Content:

UNIT-1: Introduction

- 1.1. Introduction of Computer
- 1.2. Applications of Computer
- 1.3. Types of Computers–Super Computers, Mainframes, Mini Computers, Micro computers (Desktop, Laptop, Notebook, Tablet, Smart Phones)
- 1.4. Block Diagram and functional units of computer

UNIT-2: Basic Computer Architecture

- 2.1 Concepts of Address Bus and Data Bus
- 2.2 Concept of virtual memory and cache memory
- 2.3. Hardware Components
 - 2.3.1. Motherboard
 - 2.3.2. Types of Processor (CPU and GPU)
 - 2.3.3. Understanding processor speed
 - 2.3.4. Memory –RAM (SRAM,DRAM,SDRAM), ROM,EPROM, EEPROM
 - 2.3.5. Storage Devices–Hard Disk, CD, DVD,USB flash memory
- 2.4. Introduction to Software
 - 2.4.1. Purpose and significance of Operating System
 - 2.4.2. Concept of System Software and Application Software

UNIT-3: Input & Output Devices

- 3.1 Introduction of Input Devices
 - 3.1.1 Pointing Devices – Mouse, Trackball, Joystick, TouchScreen, Light Pen
 - 3.1.2 Keyboard
 - 3.1.3 RFID concepts and application in FastTag
- 3.2 Introduction and purpose of Scanning Devices
 - 3.2.1 Optical Scanner
 - 3.2.2 Bar code Reader
 - 3.2.3 Web Camera
- 3.3 Introduction and comparisons of Output Devices
 - 3.3.1 Monitors - LED, LCD,TFT, OLED, Touch Screen Monitor
 - 3.3.2 Printers – DotMatrix Printer, Laser Printer, Inkjet Printer

UNIT-4: Concepts of Internet

- 4.1 Concepts of Internet and WWW
 - 4.1.1 Types of Internet Services
 - 4.1.2 Hardware-Modem, Router, Bluetooth, Fire-Stick
 - 4.1.3 Internet connections using Hotspot, Wifi, cable
- 4.2 Introduction of Web Browser and relevant Terminology
 - 4.2.1 URL, Address bar, Domain, Links, Navigation Buttons, Tabbed browsing, Book marks, History

UNIT-5: Introduction of Cloud

5.1 Concept of Cloud

5.2 Purpose and application of Cloud (Example of Google Doc)

5.3 Concepts of Online Data Backup

Reference Books:

1. How computer work: Ron White -Techmedia
2. Introduction to computers: 4thEdition-PeterNorton
3. Fundamentals of Computers: V.Rajaraman
4. Computer Fundamentals: Pradeep K.Sinha & Priti Sinha(BPB)
5. Introduction to Networking Recharad McMohan Tata McGraw Hill Publication
6. HTML Black Book -Steven Holzner-Dreamtech Press
7. Computer Network..Fundamentals and application- RSRajesh Vikas Publication

Teaching Methodology:

Class Work, Discussion, Self-Study, Seminars and/or Assignments

Evaluation Method:

30% internal assessment.
70% External assessment

Course Title	Web Designing Concepts
Credit	3
Teaching per Week	3 Hrs
Minimum weeks per Semester	15 (Including class work, examination, preparation, holidays etc.)
Course Objective	To make students aware of web terminology and website development tools. The student can know the real functions of website development. In this course, you will gain a foundational knowledge of website creation and be able to apply it to the planning, design and development of your own portfolio website over the course of the semester.
Pre-requisite	Do not require any prerequisite knowledge of HTML. However, basic knowledge of windows based applications, computer hardware & software is mandatory. Some very basic acquaintance with computers and the WWW is assumed.
Course outcome	The students will be able to create, organize and design websites.
Course Content	<p>Unit 1. Introduction to Internet and Web</p> <ol style="list-style-type: none"> 1.1. Internet and its working 1.2. Internet terminologies: Modem, Network, client, Server, Protocols-TCP/IP, HTTPs, World Wide Web, web page, web site, URL, Hyperlink, downloading and uploading files. 1.3. Application of Internet 1.4. Web server and Web Browsers 1.5. DNS, Domain Name and their organization 1.6. The concept of E-mail. <p>Unit 2. Getting Started with HTML</p> <ol style="list-style-type: none"> 2.1. What is HTML and Webpage? 2.2. Structure of HTML 2.3. Components of HTML <ol style="list-style-type: none"> 2.3.1. Tags, Elements, Attributes 2.3.2. Head and Body Sections 2.4. Creating web-pages using HTML 2.5. Using HTML VSCode to create and save web-pages. <p>Unit 3. Elements of HTML</p> <ol style="list-style-type: none"> 3.1. Text Formatting Tags 3.2. Block Formatting Tags 3.3. Lists

	<p>3.4. Links and bookmarks 3.5. Tables 3.6. Image</p> <p>Unit 4. User Interaction using HTML Form 4.1. HTML Form 4.2. HTML Form Attributes 4.3. HTML Form Elements 4.4. HTML Input Types 4.5. HTML Input Attributes</p> <p>Unit 5. Advanced Web Design Tools 5.1. HTML-5 Audio & Video Tags 5.2. Introduction to SEO and Meta Tag 5.3. Hands on Google Sites 5.4. Designing Professional portfolio using HTML and Google Sites</p>
Reference Books	<ol style="list-style-type: none"> 1. HTML 5 in simple steps, Author-Kogent Learning Solutions Inc. – Dreamtech Press 2. Learning Web Design: a beginner's guide to HTML, Graphics and beyond, Jennifer Niederst, O'Reilly. 3. HTML & CSS: The Complete Reference, Fifth Edition, Author-Thomas A. Powell - McGraw Hill Professional, ISBN –0071741704 4. HTML Unleashed, Author-Darnell Rick – Techmedia 5. Advanced HTML companion, Author- Keith S. & Roberts - AP Professional 6. HTML 5 Black Book (Covers CSS3, JavaScript, XML, XHTML, AJAX, PHP, jQuery), Author- Steven Holzner 7. Internet and Web Design Based on DOEACC III Revised syllabus 'O' Level Mac Millan India Ltd. 8. Internet: an Introduction, CIStems Tata McGraw Hill series, ISBN-0-7-463555-7.
Web References	<ol style="list-style-type: none"> 1. https://www.w3schools.com/html/ 2. https://www.tutorialspoint.com/html/index.htm 3. https://www.javatpoint.com/html-tutorial
Teaching Methodology	Class Work, Discussion, Self-Study, Seminars and/or Assignments

