COURSE TITLE	Introduction to Computer and Emerging Technologies
COURSE CODE	CC-101
COURSE CREDIT	3
Session Per Week	4
Total Teaching Hours	40 HOURS

AIM

The course would make students acquainted with the basics of computers.
To make students aware about current and emerging technologies.

LEARNING OUTCOMES

On the completion of the course students will be able to:
1) Know the fundamental terms associated with computers, mobile devices and new technologies.
2) Know different types of computers, mobile devices, memory and various input and output devices.
3) Understand the basic uses and applications of computer in business and society.
4) Get familiar with various computer codes.

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
	Introducing Today's Technologies: Computers, Devices, and the Web	10

1	• Today's Technology
	• Computers
	• Mobile and Game Devices
	• Data and Information
	• The Web
	• Digital Security and Privacy
	• Programs and Apps
	  o Operating Systems
	  o Applications
	• Communications and Networks
	  o Wired and Wireless Communcations
	  o Networks
	• Technology Uses
	• Technology Users
		5

	• Computers and Mobile Devices • Mobile Computers and Desktops • Servers • Terminals • Supercomputers • Cloud Computing • Mobile Devices • Game Devices • Embedded Computers • Ports and Connections	5	
2	**Processors, Memory, Adapters and Buses**	**10**	
	•Inside the case o Motherboard • Processors • Memory • Adapters • Buses	5	

	• Digital Storage
	  o Storage
	  o Hard Drives
	  o Portable Flash Memory Storage
	  o OpticaL Discs
	  o Enterprise Storage
		5	

3	**Input and Output Devices**	**10**	

	• Input Devices
	  o Keyboards
	  o Pointing Device
	  o Touch Screens
	  o Pen Input
	  o Motion, Voice, and Video Input
	  o Scanners and Reading Devices
		5	

	• Output Devices
	  o Displays
	  o Printers
	  o Other Output Devices
		5	

	Computer Codes	**10**	

	• Computer Codes
	  o Introduction to Computer Codes
	  o Decimal System
	  o Binary System
	  o Hexadecimal System
	  o Octal System
	  o 4-bit BCD System
	  o 8-bit BCD System
	  o ASCII code
	  o 16-bit Unicode
		3	

4	• Conversion of Numbers (includes fixed and fractional numbers)
	   o Non-Decimal to Decimal
	   o Binary to Decimal
	   o Decimal to Binary
	   o Binary to Octal
	   o Octal to Binary
	   o Octal to Decimal
	   o Decimal to Octal
	   o Binary to Hexadecimal
	   o Hexadecimal to Binary
	   o Hexadecimal to Decimal
	   o Decimal to Hexadecimal
	   o Hexadecimal to Octal
	   o Octal to Hexadecimal
		7	

TEXT BOOK/S:

1. Discovering Computers 2016 (First Edition)
Cengage Learning
By Misty E. Vermaat; Susan L. Sebok; Steven M. Freund; Jennifer T. Campbell; Mark Frydenberg (Shelly Cashman Series)

REFERENCE BOOKS:

Pearson India
By M. Morris R. Mano
2.Fundamentals of Computer(First Edition- 2009) Publisher: McGraw-Hill
by Balaguruswamy
3.Computer Fundamentals(First Edition-2010) Publisher: Pearson
by Anita Goel

WEB RESOURCES:

REQUIRED SOFTWARE/S

COURSE TITLE	Introduction to Programming Language using C
COURSE CODE	CC-102
COURSE CREDIT	3
Session Per Week	4
Total Teaching Hours	40 HOURS

LEARNING OUTCOMES

On the completion of the course students wil be able to:
1. To create their own logic and implement using C Programming.
2. To understand how to use programming in day to day application.

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
	PreProgramming Techniques	**10 hours**
	• Introduction to Programming Languages o Introduction to Machine level language o Introduction to Assembly language o Introduction to Higher level language o Limitations and Features. o Classification of Computer Language- Procedural Language and Non Procedural Language.	2 hrs
1	**• Tools and Techniques of Problem Analysis** o Algorithm Development and FlowChart Numerous Examples in Algorithm Development and FlowChart	2 hrs
	• Getting Started With 'C' Language o Basic Structure of C o Executing C program o Character set & C Tokens o Identifiers & Keywords o DataTypes o Constants and Variables o Type Casting o Comments	6 hrs
	C Language Operators and Decision Making	**10 hours**
	• Operators& Expression o TypesofOperatorsandExpression o Precedence&Associativity	3 hrs
2	**• Console based I/O andrelated built-inl/Ofunction** o printf(),scanf(),getch(),getchar(),putchar() o Concept of HeaderFile and #include,#define	3 hrs
	• Decision Making Structure o If o If-else o NestedIf-else o Switch	4 hrs

		Control Structure & Array	10 hours

3		**• Loop ControlStructure**
		   o While
		   o Do-While
		   o For
		   o Nested loop
			5 hrs

		• Other Statements o break,continue,goto,exit	1 hrs

		• Array
		   o One,Two – Dimensional Arrays
		   o Initializationand workingwith Array.
		   o Introduction to MultidimensionalArrays.
			4 hrs

4		**String & Functions**	10 hours

		• Character Arrays and Strings
		   o Initialization and working with String.
		   o Comparing and String Handling functions.
			2 hrs

		• User Defined Functions
		   o Introduction
		   o Elements of UDF
			2 hrs

		• Categories of UDF
		   o No argument no return value
		   o Arguments but no returnvalue
		   o No argument but returns avalue
		   o Arguments with return value
			3 hrs

		o Recursion
		   o Nesting Function
		   o Variable Scope
		   o Visibility and lifetime in function
		   o Storage Classes
			3 hrs

TEXT BOOK/S:

1. Introduction to C Programming
Publication : Oxford
By Reema Thareja

REFERENCE BOOKS:

1. Computer Fundamentals & Programming in C
Publication :Oxford
By Pradip Dey, Manas Ghosh

2. Programming in ANSIC (Fifth Edition 2011)
Publication :McGraw Hill
By Balagurusamy

WEB RESOURCES:

1. https://www.tutorialspoint.com/cprogramming/
2. http://www.javatpoint.com/c-programming-language-tutorial
3. https://www.programiz.com/c-programming
4. http://www.cprogramming.com/tutorial/c-tutorial.html
5. http://www.programmingsimplified.com/c-program-examples

REQUIRED SOFTWARE/S

1. Tarbo C

COURSE TITLE	INTERNET AND HTML
COURSE CODE	CC-103
COURSE CREDIT	3
Session Per Week	4
Total Teaching Hours	40 HOURS

AIM

To develop the skill about the basic and important terminology of Internet.
To make the students able for web site design fundamentals using HTML scripting.

LEARNING OUTCOMES

On the completion of the course students will:

1. Understand the meaning and syntax of different tags of HTML5
2. Learn the basic differences between HTML and HTML5
3. Understand the basic internet terminology and technology
4. To design web pages using simple and advanced tags of HTML5.
5. To understand the fundamental concept of Google AdSense and Analytics.

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
	Introduction to Internet	10

1	• Introduction to Internet
	• How does Internet works?
	• Internet addressing & DNS
	• Internet Vs Intranet
	• Switching:
	  o Circuit switching
	  o Packet switching
	  o Message switching
	
	• Different types of connections
	  o Dial-UP connections
	  o ISDN
	  o ADSL
	  o Leased Line Connections
	  o Satellite Connections
	• Internet service provider
		3

	• Computer Networks
	   o Use of computer Networks
	   o Network Devices
	   o Network Types
	   o Network Topologies
	• E-Mail
	   o Introduction
	   o E-mail System
	   o E-mail Protocols
	   o About E-mail addresses
	   o Structure of E-mail Message
	   o E-mail clients and server
	   o Mailing list
	   o E-mail security
	• World Wide Web
	   o Introduction
	   o Basic Elements
	• Search engines
	   o Introduction
	   o Criteria
	   o Search Agent
	   o About Popular search engines
			7

2	**Getting Started With HTML 5**	10	
	• Introduction to HTML5 o New Structure o New Form Elements and Attributes o Browser support • Defining HTML Markup • Basic structure of HTML Document o The <!DOCTYPE html> Element o The <HTML> Element o The <head> Element o The <title> Element o The <Body> Element • Modifying the background of an HTML webpage o Adding Background color o Adding Background Image • Specifying Metadata about an HTML webpage		6
	• Introduction to new elements in HTML 5 **o The Markup Elements** **o The Media Elements** **o The Canvas Elements** **o The form elements** **o The Input type attribute values**		4

3	**Working with Text,List,Tables and Frames**		**10**
	• Adding a plain text to an HTML webpage • Adding text in new line • Creating Headings on webpage • Creating a paragraph • Creating a Horizontal Rule • Creating a Subscript and Superscript • Aligning the Text • Formatting the Text • Grouping the Text • Indenting Quotations • Working with character entities • Commenting the Text		**3**

	• Working with Lists
	   o Creating an Unordered List
	   o Creating an Ordered List
	   o Creating an Definition List
	   o Nested Lists
	• Working with Tables
	   o Creating a Table
	   o Specifying a caption to a Table
	   o Adding a Table Headings
	   o Setting the Table Borders
	   o Aligning a Table and Cell content
	   o Changing the background color of a Table
	   o Setting a Cell Padding and Cell Spacing
	   o Nesting Tables
	• Working with Frames
	   o Creating a Frames
	   o Defining new element specific attributes
	   o Specifying width and height of the Frame
	   o Applying Hyperlink Target to a frame
			7

4	**Working with Hyperlinks, Images, Multimedia, Forms and Controls**		**10**

	• Working with Hyperlinks
	   o Creating Hyperlins
	   o Setting hyperlink color
	   o Linking Different sections of page
	• Working with Images
	   o Inserting an Image on webpage
	   o Display alternate text for an Image
	   o Adding Border to an Image
	   o Align an Image
	   o Using Image as a Links
	• Creating Image Maps
	• Working with Multimedia
	   o Embedding multimedia on web page
	   o Handling Browser that do not support embedding
	   o Creating a link to a multimedia file
	   o Using <object> tag insert objects
			4

• Creating an HTML Form
  o Specifying the Action URL and The method to send form
• Adding Controls to an HTML Form
  o Using the<input> tag
  o Adding Text Area<textarea>
  o Adding Selection Control
• Understanding new form elements
  o The <datalist> element
  o The <keygen>Element
• Grouping the controls of HTML Form
• Specifying Label for a control
	6

TEXT BOOK/S:

1. Internet Technology and Web Design(First Edition-2011)
Publisher: Tata McGraw Hill
By ISRD group
2.HTML 5 in SIMPLE STEPS
Publisher : DREAMTECH PRESS
BY Kogent Learning Solutions Inc.

REFERENCE BOOKS:

1. World wide web Design with HTML(First Edition-2010)
Tata McGraw Hill
By C Xavier

2. Web Enabled commercial application development using HTML, Javascript,
DHTML and php
BPB Publication.
By Ivan Bayross
3. The Complete Reference HTML and CSS (Fifth Edition)
McGraw Hill Education
Thomas A Powell

WEB RESOURCES:

1. HTML5 Introduction(https://www.w3schools.com/html/html5_intro.asp)
2. http://www.tutorialspoint.com/ht...
3. https://www.udemy.com/learn-html...
4. HTML 5 Cheat Sheet (PDF) - Smashing Magazine
5. http://html5please.com/
6. http://diveintohtml5.info/

REQUIRED SOFTWARE/S

1. Any editor of Windows or Linux/UNIX.
2. Browser to view web pages

COURSE TITLE	Fundamental Mathematical Concepts
COURSE CODE	CC-104
COURSE CREDIT	3
Session Per Week	4
Total Teaching Hours	40 HOURS

AIM

This course aims to provide student with the knowledge and skills necessary to interpret and use basic mathematical data, symbols and terminology useful in computer science. The knowledge of the subject forms the base of computer science.

LEARNING OUTCOMES

On the completion of the course students will:
1. Understand concepts of Set Theory, Coordinate Geometry, Matrix Algebra and Calculus
2. Solve simple application problems related to Computer Science based on these.

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
	Set Theory and Functions	10
	• Basic definition of Set Theory • Methods of representation of Set (Property method, Listing method)	1
	• Set operations (Union, Intersection, Complement of a set, Difference of sets, Symmetric difference, Cartesian product of sets)	2
	• Properties of set operations (Commutative, Associative, Distributive, De-Morgan's laws) • Power set and Cardinality of sets	2
1	**Functions**	
	• Introduction of Functions • Definition of function • Domain, Co-domain and Range of a function	1
	• Types of functions(Linear, Quadratic, Polynomial, Implicit and Explicit functions and examples related with it)	2
	• Exponential and Logarithmic with their properties and related examples, Introduction to Trigonometric functions	2

2	**Matrices and Determinants**		10
	• Definition of Matrix • Types of Matrix (Square, Row, Column, Zero, Diagonal, Scalar, Identity, Transpose, Symmetric, Skew-symmetric)		2
	• Arithmetic operations of Matrices (Addition, Scalar Multiplication, Matrix Multiplication)		3
	• Introduction to Determinants with Basic properties • Invertible matrix		1
	• Computation of Inverse using Definition • Simultaneous Solution of set of Linear equations using Cramer's Rule • Matrix inversion method • Rank of Matrix		4
3	**Co-ordinate Geometry**		10
	• Introduction to Co-ordinates • Quadrants and Lines • Distance formula in R2 (without proof)		2
	• Section formula (without proof)		1
	• Area of triangle (without proof) and related example		2
	• General Equation of a straight line • Slope and intercepts of a line		2
	• Parallel Lines • Perpendicular Lines • Angle between two lines (without proof) and related examples		3
	Simple examples should be asked for above concepts		
4	**Limit, Differentiation and Integration**		10
	• Limit o Concept of Limit o Some standard Limits (without proof) o Continuity of a function and related examples		2
	• Differentiation o Definition of Derivative o Rules for Differentiation (without proof) o Differentiation of composite functions o Higher order derivatives till order 2		5
	• Integration o Introduction to indefinite integral o Definition of Integration & Methods of integration o Substitution Methods o Some standard Formulae (without proof) and example based on the standard forms o Introduction to definite integration and simple examples on it		3

TEXT BOOK/S:

Business Mathematics (Latest Edition)
Publisher : S.Chand and Sons Publications
By: D.C. Sancheti & V.K Kapoor

REFERENCE BOOKS:

Elementary Engineering Mathematics
Publisher : Khanna publisher
By : BS. Grewel

COURSE TITLE	C Practical
COURSE CODE	CC-105
COURSE CREDIT	3
Session Per Week	3
Total Teaching Hours	40 HOURS

AIM

Students will be provided with practical knowledge of advanced C programming language which includes functions, structures, files, pointers, dynamic memory allocation & preprocessors.

LEARNING OUTCOMES

On the completion of the course students will:
1. The objective of this subject is to get in-depth practical knowledge of C language.
2. To know the advanced concepts of C Programming Language.

Note

The students are expected to write program in 'C' language unit wise as given below. The list in each unit is **indicative only and may or may not be asked in the examination.**

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
1	1 . Find the Simple Interest. Inputs are principal amount, period in year and rate of interest.	10
	2. Find the area and perimeter of square and rectangle. Input the side(s) through the keyboard.	
	3. Accept any three numbers and find their squares and cubes.	
	4. Write a program to enter the temperature in Fahrenheit and convert it to Celsius.[C = ((F-32)*5)/9]	
	5. Write a program to store and interchange two numbers in variables a and b.	
	6. Write a program to accept an integer and display it in octal and hexadecimal formats.	
	7. Write a program to enter text with gets() and display it using printf() statement also find the length of the text.	

	8. Write a program to enter two numbers and find the smallest out of them. Use conditional operator.	
	9. Write a program to enter a number and carry out modular division operation by 2, 3 and 4 and display the remainders.	
	10. Write a program to find the average temperature of five sunny days. Assume the temperature in Celsius.	
2	1 . Write a program to accept number of seconds and display its corresponding hours, minutes and seconds.	10
	2. Write a C program to find the maximum from given three numbers (Using Nested IF).	
	3. Write a C program to find that the accepted no is Negative, Positive or Zero.	
	4. Write a program to check given year is a Leap year or not.	
	5. Write a C program to find minimum from given 3 numbers (Using Conditional Operator).	
	6. Write a C program to find the maximum from given three numbers (Without using Nested if, or Logical Operator, Or Conditional operators).	
	7. Take marks from the user and print grade accordingly(>=75 marks – Distinction, <75 and >=60 marks – First, <60 and >=50 – Second, <50 and >=35 – Pass, <35 – Fail) using if … else if….else statement and also by using logical operators).	
	8. Take 2 numbers from the user and print the greater number (Number can be equal).	
	9. Write a program to check whether the blood donor is eligible or not for donating blood. The conditions laid down are as under. Use if statement. a) Age should be above 18 yrs but not more than 55 yrs.	
	10. Write a program to calculate bill of a job work done as follows. Use if else statement. a) Rate of typing 3 Rs/page b) Printing of 1st copy 5Rs/pages & later every copy 3Rs/page. The user should enter the number of pages and print out copies he/she wants.	

11. The ABC Insurance Company Ltd. Offers the following three categories of car insurance policy to car owners: • Category A, here the basic premium is calculated as 2% of the car's value. • Category B, here the basic premium is calculated as 3% of the car's value. • Category C, here the basic premium is calculated as 5% of the car's value.	
12. Write a program to implement calculator using switch case.	

3	1 Write a program to find sum of N numbers. 2 Write a program to find factorial of given number. 3 Write a program to find maximum from given N inputs by user. 4 Write a program to find reverse of a given number. 5 Write a program to find sum of the digits entered by the user. 6 Write a program to generate Fibonacci series up to N numbers. 7 Write a program to find GCD and LCM of given 2 numbers. 8 Write a program to find the sum of first 100 odd nos. and even nos. 9 Write a program to check whether given number by the user is Palindrome or not. 10 Write a program to check whether the given number is Prime or not.

	11 Write a program to print all the prime numbers ranging from 50 to 100.
	12 Write a C program to find x1+x2+x3+x4+ ....+xn.
	13 Write a C program to find 1+1/2+1/3+1/4+ ...+1/n.
	14 Write a program to print following pyramid.
	   *
	  * *
	 * * *
	 * * * *

| | 15 Write a program that accepts an integer N, if the integer N = 4, then print the pyramid :<br><br>```
    1
   121
  12321
 1234321
```<br>16 Write a program that accepts an integer N, if the integer N = 4,then print the pyramid :<br><br>```
4 4 4 4
 3 3 3
  2 2
   1
``` | **10** |
| **3** | 17 Write a program to Print following:<br><br>```
    A
   B C
  D E F
 G H I J
```<br><br>18 Write a program to Print following:<br><br>```
    1
   0 1
  1 0 1
 0 1 0 1
``` | |
| | 19 Write a program to Print following:<br><br>```
    1
   0 1
  0 1 0
 1 0 1 0
```<br><br>20 Write a program to Print following:<br><br>```
    A
   ABA
  ABCBA
 ABCDCBA
``` | |
| **4** | 1 Display this kind of output on screen.<br><br>```
C
CP
CPR
. .
CPROGRAMING
.
.
CPR
CP
C
``` | |

2 Write a program which will take 10 numbers from user and stored it in the array. It will print all the numbers, their sum and average of it.

3 Write a program to find binary of given number.

4 Write a program to sort and array.

5 Write a program to search an element from the array.

6 Write a program to find addition of two matrices of 3*3.

7 Write a program to find multiplication of two matrices of 3*3.

8 Take two strings from the user and check whether the string is palindrome or not.

9 Write a program to find sum, average of two numbers passed to user defined functions called sum(int,int) and average(int,int).

10

10 Write a program to print factorial of a given number by recursive user defined function fact(int).

4

11 Write a program to print Fibonacci series using recursive UDF.

12 Write a program to find length of the given string (without including string.h).

13 Write a program to find length of the given string (without including string.h).

14 Write a program to convert lowercase string to uppercase string (without including string.h).

15 Write a program which will accept two strings from the user and print the message that the strings are same or not.

16 Write a program which take a lowercase string from the user and print its length and uppercase string.

17 Write a program that uses function digit(N,k) that return the value of the kth digit from the right of the number N. For eg. The function call digit (254693,2) should return 9.

	18 Program to find if the given no. is prime or not. The function should accept the number as argument and return if the no. is prime or not.	

TEXT BOOK/S:

Introduction to C Programming
Publication :Oxford
by Reema Thareja

REFERENCE BOOKS:

1. Computer Fundamentals & Programming in C
Publication: Oxford
By Pradip Dey, Manas Ghosh

2. Programming in ANSI C (Fifth Edition 2011)
Publication: Mc Graw Hill
By Balaguruswami

COURSE TITLE	INTERNET AND HTML - PRACTICALS
COURSE CODE	CC-106
COURSE CREDIT	3
Session Per Week	3
Total Teaching Hours	40 HOURS

AIM

To develop the skill about the basic and important terminology of Internet.
To make the students able for web site design fundamentals using HTML scripting.

LEARNING OUTCOMES

On the completion of the course students will:
1.Understand the meaning and syntax of different tags of HTML5
2.Learn the basic differences between HTML and HTML5
3.Understand the basic internet terminology and technology
4.To design web pages using simple and advanced tags of HTML5.
5.To understand the fundamental concept of Google AdSense and Analytics.

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
1	Introduction to Internet	10
	1. Creating and saving simple HTML document. And opening in	
	2.Modifying the background of HTML webpage (with colors &	
	3.Creating headings on web page (to)	
	4.Demonstrate use of subscript, super script, align tag	
	5.Format the text by using formatting tags like bold italic and	
	6.Design a Home page design of Gujarat University using basic	
	7. Design a website of online mobile shopping (use your	
2	**Getting Started With HTML 5**	**10**
	1. Creating Metadata in webpage	
	2.Use <!DOCTYPE html> in web page	
	3.Create web page with <blockquote> tag.	
	4.Write HTML program to insert special characters And comment.	
	5.Create webpage to display your resume.	
	6.Create Web page to Print BCA Course Information.	
	7.Design a web page to print HTML syallabus.	
	Working with Text,List,Tables and Frames	**10**
	1. Creating unordered List.	
	2.Show the use of all tags and attributes of ordered list.	
	3.Show the use of all tags and attributes of definition list.	

3	4.Create Web page to print electricity bill.		
	5.Create webpage to display Your insitute admission form using		
	6.Create Web page to Print BCA HTML Syllabus using table.		
	7. Create webpage which shows three horizontal frames in a		
	8. Create a webpage for online Jwellary shopping. Display Menu in left frame. Clicking on menu should display related webpage in right frame. Keep header and footer frames to display related information.		
4	**Working with Hyperlinks, Images, Multimedia, Forms and Contr**	**10**	
	1. Creating webpage whish shows the use of hyperlink.		
	2.Show the use of all tags related to images.		
	3. Create a web page for user registration form. Assume related information and use appropriate control		
	4.Create Web page student registration form.		
	5.Create webpage for online money transfer form		
	6.Create Web page to apply in job using filling form online.		
	7. Create webpage for feedback form.		

TEXT BOOK/S:

1. Internet Technology and Web Design(First Edition-2011)
Publisher: Tata McGraw Hill
By ISRD group
2.HTML 5 in SIMPLE STEPS
Publisher : DREAMTECH PRESS
BY Kogent Learning Solutions Inc.

REFERENCE BOOKS:

1. World wide web Design with HTML(First Edition-2010)
Tata McGraw Hill
By C Xavier
2. Web Enabled commercial application development using HTML, Javascript, DHTML and php
BPB Publication.
By Ivan Bayross
3. The Complete Reference HTML and CSS (Fifth Edition)
McGraw Hill Education
Thomas A Powell

WEB RESOURCES:

1. HTML5 Introduction(https://www.w3schools.com/html/html5_intro.asp)
2. http://www.tutorialspoint.com/ht...
3. https://www.udemy.com/learn-html...
4. HTML 5 Cheat Sheet (PDF) - Smashing Magazine
5. http://html5please.com/
6. http://diveintohtml5.info/

REQUIRED SOFTWARE/S

1. Any editor of Windows or Linux/UNIX.
2. Browser to view web pages

COURSE TITLE	Open Source Office Automation (Practicals)
COURSE CODE	CC-107
COURSE CREDIT	3
Session Per Week	3
Total Teaching Hours	40 HOURS

AIM

The course would make students acquainted with the features and basic commands of DOS. It also emphasis basic as well as advance features of Open Office tool.

LEARNING OUTCOMES

On the completion of the course students would be able:
1) To gain basic knowledge of DOS.
2) To develop skills for effective use of the Open Office tools by preparing and applying various features in documentation, spreadsheet and presentation.

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
	Introduction to DOS and Windows	10
1	• **DOS** o Introduction o Comparison with GUI o Wildcard characters o Working with DOS commands: dir, md, rd, cd, copy, type, del, ren, date, time, cls, ver, move, attrib, xcopy o batch file	4
	• WINDOWS o Introduction o Booting Process o Components Of Windows Desktop, Icon, My computer, My documents, Network, Neighborhood, Recycle bin, Start menu, Taskbar, Windows explorer	

	o Control Panel Date & time, Display, Mouse, User accounts, Add & remove programs, o Files and Folders Creating Folder, Folder Operations (copying , moving and deleting), Creating files & file operations, Creating Shortcuts o System Tools Disk Defragmentation	6
	WRITER — THE WORD PROCESSOR	**10**
2	• **Introduction to Open Text Document** o Creating text documents o Working with text basic formatting like bold, italic, underline, change color, font, font effects, change case etc., basic editing like select-cut-copy-paste, paragraph formatting, number & bullet list, navigation find & replace etc. o View and page layout font work, print layout, page margin, add header, footer, footnotes, endnotes, using columns etc.	5
	• **Advanced Features** o Working with tables and graphics o Mail Merge o Other Features Autocorrect, Autotext, Macros, Protecting documents	5
3	**CALC — THE SPREADSHEET**	**10**
	• **Introduction to Spreadsheet** o Concept of Workbook, Worksheet, Workspace o Types of data o Formatting Workbook o Conditional formatting o Sorting Data	2
	• **Advance Features** o Data validation o Data filter (Auto & Advance) o Charts o What if analysis Goal seek, Scenario o Protecting Worksheet o Types of error	4

	• **Functions and Formulas** o Mathematical round, ceiling, floor, fact, subtotal, sum , sumif o Logical AND, OR, NOT, if o Statistical min, max, avg, count o Text concatenate, exact, find, left, right, len, lower, upper, trim o Lookup Hlookup, Vlookup o Date and Time date, day, days360, hour, minute, now, second, time, today, year	4
	IMPRESS — THE PRESENTATION	10
4	• **Introduction to Presentation** o Creating, browsing & saving Presentation o Editing & formatting slides o Working with objects	4
	• **Enhancing presentation using multimedia** o Transitions o Add sound, image, video o Preset Animation o Rehearse Timings o Pack & go wizard o Pen o Custom Show	6

TEXT BOOK/S:

1. **Working with Personal Computer Software (Second Edition 2010)**
Publisher: Wiley India, New Delhi By R.P.Soni, Harshal Arolkar , Sonal Jain
2. **Openoffice.org for dummies**
Publisher: Wiley Publishing, Inc. By Gurdy Leete, Ellen Finkelstein, and Mary Leete

COURSE TITLE	LEARNING FROM WORLD LEADERS
COURSE CODE	EC-101
COURSE CREDIT	2
Session Per Week	2
Total Teaching Hours	20 HOURS

LEARNING OUTCOMES

It brings together the ideas, innovation and achievements of the great world thinkers and leaders of contemporary times for the students to learn and benefit from. In studying the selections, the students will get to discuss and debate a wide range of topics—from academic disciplines, such as philosophy, history, sciences, psychology, literature, performing arts and theatre to social and cultural issues and much more. This will provide the students with a window into a critical understanding of the globalized world. The personalities selected in this course are indicative, and additions or changes can be made according to the choice of the teachers, giving them a leeway to adapt the course to their own teaching methods and pedagogic requirements. Approximately four selections from each category need to be studied during the course. A typical course would include an extract from the life story/work/speech/personal correspondence/biography etc., of these personalities, an annotated description of the context of the personality, his/her work and contribution to humanity.

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
1	**From the World of Sciences**	
	Extracts from the life stories and works of: (Any Two) Einstein, Edison, Rutherford, Marconi, C. V. Raman, Ronald Ross; Marie and Pierre Curie; Alexander Fleming; Frederik Sanger	
2	**From the world of Industry**	
	Extracts from the life stories and works of: (Any Two) Bill Gates; Larry Page and Sergey Brin; John Ford; Steve Jobbes; Lee Iaococca; Rupert Murdoch; Richard Branson; Marjorie Scardino;	
	From the World of Politics and Social Enterprise	

3	Extracts from the life stories and works of: (Any Two) Abraham Lincoln, Lenin, Nelson Mandela; Barack Obama, Gorbachev, Mustafa Kemal Pasha; Yitzhak Rabin; Sukarno; Ong San Su Kyi; Golda Meyer;	
	From the World of Arts, Culture, and Sports	
4	Extracts from the life and stories of: (Any Two) Hellen Keller; Charles Chaplin; The Beatles; Michael Angelo; Picasso; Tyeb Mehta; Danny Boyle; Richard Attenborough; Pele; Bolt; Jessie Owens; Bryan Lara, Don Bradman	

COURSE TITLE	CULTURE AND CIVILISATION
COURSE CODE	EC-101
COURSE CREDIT	2
Session Per Week	2
Total Teaching Hours	20 HOURS

DETAIL SYLLABUS		
UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
1	Culture- concept, meaning & definition - Elements of culture - Discourses on culture in 19th and 20th Century (an overview) - Layers of culture - Manifestations of culture - Civilization - concept, meaning & definition - Characteristics of civilization - difference between culture and civilization - Cultural diversity - Dimensions of cultural diversity.	
2	Indian Culture & Heritage - cultural diversity of India - Geographic - Religious - Languages –Clothing and attire - Food habits - Cultural - Economic Culture &History of India {Trade & Industrial Organization, Traders & Shopkeepers, Inland routes and Trade marts, Exports & Imports, Production centers & Specialization, Credit & Banking, Barter & Medium of exchange, Labour and vocational mobility) - Business culture of India -Specialty of Indian business style - Industrialization in India - History of Industrialization - Industrialization today.	
3	Business culture - business culture models - Interpersonal interaction model & Risk and feedback model (Power culture, Achievement culture, Support culture, Role culture, Macho, Tough-guy culture, Work-hard and Play-hard culture, Bet-the-Company culture & Process Culture).- Business culture consultants - Organizational culture and business history - Typologies of organizational culture - Key elements of organization culture. - Organization culture & Ethics.	

4	Corporate culture - Evolution of Corporate culture - Corporate culture and organizational culture - Necessity for designing - Corporate culture, values and strategic change - Organizational capabilities - Changing and --Cultivating a positive corporate culture - a better corporate culture - Corporate culture and performance – Corporate culture and its historical context in India - Corporate culture and Indian Industries.	

COURSE TITLE	HEALTH EDUCATION
COURSE CODE	EC-101
COURSE CREDIT	2
Session Per Week	2
Total Teaching Hours	20 HOURS

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
1	a) Concept of Health & Health education b) Health Education – Aims, Principles, Contents and Methods. c) Levels of Health Care in India, 3-Tier system of health care d) Positive health : Meaning & Spectrums e) Role of Heredity & Environment	
2	a) Nutrition: ● Proximate Principles ● Balance diet ● Malnutrition b) Effects of Smoking, Drugs and Alcohol c) School Health services & Programme ● Aspects ● Role of the P.E. Teacher, Principal and Doctor	
3	Community & Environmental Health ● Pollution:- Its causes & effect on health i. Air Pollution ii. Water Pollution iii. Noise Pollution ● Occupational Hazards ● Housing ● Population: - Policy, explosion, dynamics & family welfare Programme	
4	a) Epidemiology of Communicable Disease ● Small & Chicken Pox ● Tuberculosis ● Measles & Mumps ● Malaria, Dengue and Chickengunia ● Rabies, Jaundice & Yellow fever b) Epidemiology of Non-Communicable Disease ● Coronary Heart Disease (CHD)	

| | ● Cancer
● Diabetes
● Hypertension
c) Sexually Transmitted Diseases | |

REFERENCE BOOKS:

♦Park J.E., Park K. Text Book for preventive and social MedicineJabalpur : Message Banarasidas Bhanet 1980 Edn.8

♦ Turner C.E. The School Health and health Education (st. Louis : TheC.V.

♦ Mosby Co. 1952) Edn. 2

♦ Bedi, Yashpal, Social and preventive Medicine (Delhi: Atamaram & Sons1983).

COURSE TITLE	Yoga and Meditation
COURSE CODE	EC-101
COURSE CREDIT	2
Session Per Week	2
Total Teaching Hours	40 HOURS

AIM

The students would be able to ..
1. To know yoga, and their types.
2. To know different asans for different types of deseases.
3. To perform asans, mudras and dhyan.

LEARNING OUTCOMES

The aim of the course is to make student how to get introduce to Yoga and Meditation.

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
	(Yoga Theory)	
1	1. Yogic Prayer 2. Yoga (Meaning , Introduction, all the eight limbs) 3. Types of Yoga (Astanga, Gyan, Karma, Bhakti, Hatha, Nada, laya, Mantra) 4. Taking note of individual health problems of participants. 5. Distractions in the path of Yoga and its immeasurable benefits, if one keeps moving along the journey of Yoga. 6. Yoga Ahara (Yogic food) and nutrition. 7. Prana : Five major ones and their importance. 8. Human Body and its healthy functioning, with reference to the Yogic Science.	
	(Yoga Theory)	
2	a. Yoga Therapy (disease wise) : General weakness b. Diabetes c. Blood Pressure (High & Low) d. Heart Problems e. Eyes f. Asthma g. Obesity h. Thyroid i. Arthritis j. Backache k. Cancer	

2	l. Constipation m. Dysentery n. Fever o. Hernia p. Irritable Bowel Syndrome / indigestion • Life Management Tips : (Diet, Sleep and other Aspects of life) like Temperance, Dress, Ethics, Dincharya, Ratricharya, Ritucharya, Jeevan Darshan (Life's Philosophy), Duties and Debts. • Spiritual Healing . • Shadripu (The Six Enemies), PanchKleshas, PanchKosh. • Concept of God in Shrimad Bhagavad-Gita and PatanjalYogDarshan, • Astanga Yoga in PatanjalDarshan. • Yoga in Bhagvad Gita …… Special Reference to (Chapters 6, 12, 2: 47 to 59, 16: 1 to 5, 17: 8 to 10, 9: 34, 18: 65)	
3	**(Yoga Practical)**	
	1. Introduction to the entire Pawanmuktasana series. 2. Shatkarma (The Six Yogic Cleansing Methods) : 1. Kapalbhatis (Vatkrama, Vyutkrama, and Sheetkrama) 2. Tratakas 3. Netis (Jal, Cathetar, Ghrit) 4. Dhautis (Kunjal, Agnisar, LaghooSankhaPrakshalana) 3. Surya and Chandra Namaskara. **ASANAS:** 1. .Inverted Bhumipadmastakasana, Vipareetkarni, Sarvangasana, PadmaSarvangasana ,Halasana 2.Backward Makrasana, Bhujangasana, Shalabhasana, Dhanurasana, Kandharasana, Setuasana, Grivasana , lying Chakrasana, Pristhasana. 3.Forward Saithalyasana, Paschimottanasana, ArdhaPadmaPaschimottanasana, Garbhasana, Meruakarshanasana, Koormasana, Ekapadasirasana, EkapadaPadmottanasana. 4.Spinal Twist MeruVakrasana, Bhunamanasana, ArdhaMatsyendrasana, Markatasana, UtthitapadaprasarVakrasana . 5.Balancing EkapadaPranamasana and its variations, EkaPadasana, Natarajasana, Garudasana, Bakasana, Brahmacharyasana, PadmaParvatasana, Merudandasana and its variations, Padangusthasana, Bakadhyanasana. 6.Pre-Meditative Ananda Madirasana, Padadirasana. 7.Relaxation	

3	Shavasana, Advasana, Jyestikasana, Matsyakridasana, Balasana, Makrasana, Saithilyasana, Sasankasana, Vrishabhasana. 8.Other Useful Asanas Vajrasana, Singhasana, Tadasana, Tanasana, Mandookasana, Utkatasana, Kagasana. **Pranayamas:** 1. Yogic Breathing 2. NaadiShodhanand its stages 3. Sheetali 4. Sheetakari 5. Bhramari 6. Ujjai 7. Bhastrika 8. Kapalbhati 9. SuryaBheda 10. Bahyavritti	
	(Yoga Practical)	
4	1. Kriyas for eyes (All Rotations, Massage, Palming). 2. Pratyahara (Withdrawl of the Indriyas, for their healthy functioning). 3. MUDRAS :Vipareetkarani Mudra, Kaki Mudra. 4. BANDHAS: Mool, Uddiyana, Jalandhar, Tribandha. 5. Brahmacharya - its meaning , benefits and practice methods. 6. Asanas helpful for Pratyahara and Brahmacharya: Siddhasana, Padmasana, Moolbandhasana, VipareetkarniAsana,koormasana, Padangusthasana, Bhadrasana, Brahmacharyasana. 7. Meditation and its types : IshtaDhyan , also called SthoolDhyan , JyotiDhyan, SookshmaDhyan	

REFERENCE BOOKS:

• Asana, Pranayama, Mudra, Bandha : By Swami SatyanandSaraswati.
• Patanjal Yoga Darshan – Geeta Press
• Hatha Yoga (Bihar School of Yoga)
• Gherand Samhita (Bihar School of Yoga)
• Shrimad Bhagvad-Gita – Gita Press
• Natural Health and Yoga – Dr.BrijBhushanGoel
• Shiv Samhita

COURSE TITLE	Communication Skills
COURSE CODE	FC-101
COURSE CREDIT	2
Session Per Week	3
Total Teaching Hours	40 HOURS

AIM

Communication is a very essential skill for everyone to be successful in their professional carrier and daily life. The objective is to acquaint the students with the basic concept of communication, how to draft formal and business letters, polishing their speaking abilities and revising their grammatical and word power.

LEARNING OUTCOMES

Communication has to keep pace with people's life style, business and occupations. There are changes in communication style as technology influences everything that we do: business, industry, education, entertainment and our daily lives. As it is used in every walk of life the course is designed keeping in mind all the four language skills – Listening, Reading, Writing and Speaking. The syllabus covers four units named Theory of Communication, Written Communication, Speaking Strategies and Language Work. These four units fulfill the requirement of the communication subject.

DETAIL SYLLABUS

UNIT	TOPIC / SUB TOPIC	TEACHING HOURS
1	**Theory of Communication**	**10**
	• Definition & process of Communication	1
	• Verbal – Non-verbal Communication	2
	• Dimensions of Communication	2
	• Features of effective Communication	2
	• Barriers to effective Communication	2
	• Objectives of Communication	1
2	**Written Communication**	**10**
	• Understanding the basics of letter writing	2

	• Business Letters
	  o Inquiry & Reply letters
	  o Placing, Execution and Cancellation of an orders
		3

	• Non Business formal letters
	  o Letter to the Post Master
	  o Letter to the Police Commissionaire
	  o Letter to the Municipal Health Commissionaire
	  o Letter to the Editor
	  o Letter to the Director of your college
		3

	• Job Application	2

3	**Speaking Strategies**		**10**
	• Vowels and Consonants		2
	• Braking words into syllabus and making accent/stress (Elementary level)		2

	• **Interview**
	  o Introduction
	  o General preparation for an Interview
	  o Types of questions generally asked
	  o Types of Interviews
			3

	• **Presentation** o Preparing an outline of the presentation o Using visual aids o Body language and effective presentation		3
4	**Language Work**		**10**
	• Tenses		4
	• Preposition		2
	• Confusables *		2
	• One word substitute		1
	• Homonyms		1

TEXT BOOK/S:

1. Communication Skills
Publisher:Oxford University press.
By: Meenakshi Raman, Sangeeta Sharma
Unit - 1 : Chapter-1 Communication Theory
Unit - 2 : Chapter-11 Basic Official Correspondence
Unit - 3 : Chapter-3 Phonetics
Unit - 4 : Chapter-10 Grammar & Vocabulary

REFERENCE BOOKS:

1. Communication Skills
Publisher: Prentice Hall of India Pvt Ltd. By Leena Sen,
2. Effective Technical Communication
Publisher: Tata Mac. Co. Ltd By M Ashraf Rizvi
3. Oxford Business English Dictionary
Publisher: Oxford Uni. Press.
4. Business English & Communication
Publisher: Mac Graw Hill Internationl edition
By Lyn R. Clark, Kenneth Zimmer and Joshoph Tinervia,