Semester – I

Subject Name: Essential Skills of Information Technology

Subject Code: 09CT0101

Diploma Branches in which this subject is offered: Information & Communication Technology

Objective:

The application of Computer, Internet and web knowledge is essential the students of all disciplines of Engineering in addition to their respective branch of study. Objective of this subject is to make the students understand the functioning of MS-Office, data analysis and graphical representations using office automation like MS-Word, MS-Excel and MS-PowerPoint. This subject also covers the basics WWW, technologies like HTML, CSS including JavaScript. These technologies are equally used for developing web based educational and business applications. This course will help student for developing dynamic web pages which will be taught in upcoming semesters.

Credits Earned: 3 Credits

Course Outcomes: After completion of this course, student will be able to

- Student will be able to understand their own desktop, various settings, installation and de-installation of various software.
- They can prepare word sheet, worksheet, and power presentation by their own.
- They are able to send, create, and edit emails and internet groups.
- Develop web pages using CSS styles, internal and/or external style sheets.
- Design the modern web pages using the HTML and CSS features with different layouts as per need of applications.
- Use the Scripting language to develop the dynamic web pages.

Pre-requisite of course: N.A.

Teaching and Examination Scheme

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Practical Marks		Total Marks
Theory	Tutorial	Practical		ESE	IA	CSE	Viva	Term work	
0	0	6	3	00	30	20	25	25	100

Contents:

Unit	Topics	Contact hours	Weightage (%)
1	**Introduction to Computer System, Internet & WWW:** Introduction to Hardware and Software, Block diagram of computer system, Introduction to OS, Basic operations of computer. Definition of Internet, Getting acquainted with Internet Connection, Browsers, Website URL, Open a website, Net Browsing, Email Definition of WWW, Web Pages, Internet tools, Web server, Domain name , Search Engines, Web browser, IP address and its Versions (concepts only) , Internet Protocols – TCP/IP , FTP , HTTP	8	12
2	**Documentation (Word sheet, Spread Sheet, Presentation):** Introduction to Word Processing, Workbook & Worksheets, Presentation – Examples- Creation of new documents, different data types, various operations, conditions, formations, editing, various features, workbook & worksheet with various equations and formulas.	12	18
3	**Working with HTML** Basic Tags of HTML - HTML Tag - TITLE Tag – BODY Tag, Formatting of Text - Headers - Formatting Tags, PRE Tag, FONT Tag, META Tag Special Characters, Working with Images, Links, Anchor tag, Lists - Unordered Lists - Ordered Lists –Definition Lists, Tables Tags- Colspan and Rowspan, Frames - Frameset , FRAME Tag , Frame inside other frames, NOFRAMES Tag, Forms - FORM and INPUT Tag, TextBox, Radio Button, Checkbox, SELECT Tag and Pull Down Lists - Hidden ,Submit and Reset , Some Special Tags- COLGROUP , THREAD, Designing of Web page using HTML	17	24
4	**Fundamentals of CSS** CSS Introduction, Features, basics of Style Sheet, Working with CSS files, Syntax, Borders, Backgrounds, Fonts, Multiple columns, Text effects. Types of Style Sheets- Inline Styles, Embedded Styles , External or Linked Styles,	16	22
5	**Fundamentals of Programming and Scripting Language:**	17	24

Basics of programming and scripting language, Difference between programming and scripting language, Use of scripting languages, Variables - Declaring Variables – Scope of variables ,Data Types, Operators - Assignment , Comparison, Computational and Logical operators, Types of Control Structures - Conditional Statements , Loop Statements -for, while, for in, break and continue statements		
TOTAL HOURS	**70**	**100**

Suggested List of Experiments:

Sr. No.	Unit No.	Name of Topics
1	1	Introduction to computer and perform various task for basics settings and operation on computer system.
2	1	Installation of (single/dual) OS on computer system.
3	2	Write a letter about your College about 200 words with two paragraphs and apply following functions (i) Set Arial font of size 12 (ii) Bold Title of College (iii) Make a justify alignment for paragraph text (iv) Use format Painter to format the second paragraph (v) Use 1.5 line spacing in paragraph
4	2	Create a result sheet containing Candidate's Register No., Name and Marks for six subjects. Freezing column containing the Candidate's register no and name Calculate the total and result. The result must be calculated as below and failed candidates should be turned to red. Result is Distinction if Total >= 70 % First Class if Total > = 60 % and < 70 %, Second Class if Total >= 50 % and < 60 % , Pass if Total >= 35 % and < 50 %, Fail otherwise
5	2	Make a marketing presentation of any consumer product with at least 10 slides. Use different customized animation effects on pictures and clip art on any four of ten slides.

6	1	Create an e-mail id and perform the following ● Write an e-mail inviting your friends about an Event that going to be organized by college ● Make your own signature and add it to the e-mail message. ● Add a word attachment of the venue route ● Send the e-mail to at least 5 of your friends. Add your Subject Faculty's email id in CC field and Class Coordinator's email id in BCC field.
7	1	Make a Google group of at least 10 people and share a spreadsheet and invite them to enter their details.
8	3	Implement and design HTML page that includes image and its description.
9	3	Implement and design a web page that includes four links which redirects to your subject syllabus webpage.
10	3	Create a Web page using Frame and Frameset Tags.
11	3	Create a web page which includes audio and video tags of HTML.
12	4	Develop a web page using CSS to create a time table for the class using different border style.
13	5	Write a Java script code to find the area of a square where lengths of each sides is 10.
14	5	Design a single page website for Marwadi University containing a description of all the courses offered. It should also contain general information about the college such as its campus and facilities provided by it.

Student Activity:

Complete online course and get certificate of "Introduction to Computer" under Spoken Tutorial Program.

Instructional Method:

a. The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

b. The internal evaluation will be done on the basis of continuous evaluation of students in the laboratory and class-room.

c. Practical examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

d. Students will use supplementary resources such as online videos, NPTEL videos, e-courses, Virtual Laboratory

Reference Books:

1. Thomas Powell ,"HTML & CSS: The Complete Reference", Mc GrawHill, Fifth Edition
2. Powell, Thomas," JavaScript The Complete Reference, MC Grawhill, 3rd edition
3. R. Taxali, "Computer Course", Tata McGraw Hills. New Delhi.
4. Dr. Shailendra Singh, Pawan Thakur, Anurag Jain," Basic Computer Engineering", Satya Prakashan, New Delhi, India

Suggested Resources

1.   **www.w3schools.com**

2.   **www.tutorialspoints.com**