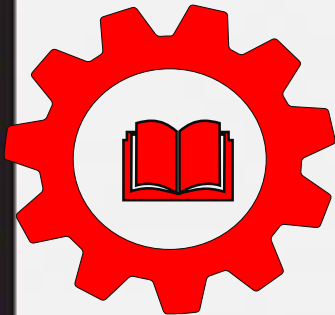




**Anmai Hajira Women's College**  
Melapalayam, Tirunelveli



**DEPARTMENT OF COMPUTER SCIENCE**  
*Offers*  
**Certificate Courses**  
**2022 - 2023**



**MS OFFICE AND GOOGLE APPS**

**Introduction to Computers**



**C Programming**

**Web Design Using HTML**





**Annai Hajira Women's College**  
**Melapalayam, Tirunelveli - 05**  
(A Unit of As-Sathiq Educational Society)



**CERTIFICATE COURSE**

**About Course**

The course focuses the students to master Microsoft Office Applications and Google Apps. The basics of Microsoft Office aren't so hard but if they want to become an expert they need to learn and practice more. Training Google Apps is a powerful productivity suite of tools. **Google Apps** is a suite of apps which offers a free alternative to Microsoft Office or Microsoft Office 365. The course prepares the students with all the tools and software that requires for successfully becoming a professional.

**Pedagogical Outline**

The duration of the course is 1 year which incorporates theory classes, practical classes, assignments, quizzes and internal tests.

**Eligibility**

All programme students are eligible to enroll for this course.

**Scope of the Course**

With the knowledge of the MS Office Course, students can work in Office as Computer Operators, Data Entry operators, Document makers, Computer Office administrators, Online Internet Operators, Accountants, and Billing operators.

<b>Certificate Course in MS – OFFICE &amp; GOOGLE APPS</b>		
<b>Paper – I</b>	<b>Course Code: 2022MSG11</b>	
<b>Hrs: 35</b>	<b>Duration: 1 year</b>	<b>Credits: 2</b>

### **Course Objectives**

- Gives students an in-depth understanding of why computers are essential components in business, education and society.
- Provides hands-on use of Microsoft Office 2007 applications Word, Excel and PowerPoint. Completion of the assignments will result in MS Office applications knowledge and skills.
- Demonstrate techniques for creating, reviewing, sending, receiving, organizing, and manage the email messages on Gmail and incorporating other Google apps with Gmail.
- Provide foundational or “computer literacy” curriculum that prepares students for life-long learning of computer concepts and skills. Completion of course fulfills pre-requisite to enroll in other computer science courses required for a certificate, or to qualify for high demand employment.

## Course Content

### Unit – I

6L

**MS - Word:** Text basics - Text Formatting and saving file - Working with objects - Inserting page number, date and time - Inserting textboxes, Word art, Symbols and charts - Headers and footers - Working with Bullets and Numbered list.

### Unit – II

6L

Tables – Table Formatting - Styles and content – Adding Footnote and end note - Merging the documents - Sharing and maintaining the documents - Proofing the documents – Setting Autocorrect options – Printing – Setting Page setup and margins.

### Unit – III

6L

**MS - Excel:** Introduction to Excel - Formatting Excel workbook - Perform calculations with functions - Sort and filter data with Excel - Create effective charts to present data visually - Proofing and Printing.

### Unit – IV

6L

**MS - PowerPoint:** Setting up PowerPoint environment - Creating slides and applying themes - Working with bullets and numbering - Working with objects –Word Art and Shapes - Slide Show option.

### Unit – V

6L

**MS - Access:** Design a database – Build a database – Working with Forms – Sort, Retrieve, Analyze Data – Working with Reports.

**Working with Gmail:** Creating Gmail- Sending E-mail -Working with Google drive - Uploading documents to Google drive - Sharing the documents - Working with docs, sheets, slides and forms.

### Text Books

- Microsoft Office 2007 Hand Book - Kalpesh Patel - Computer World Publication

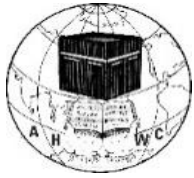
### Web References

- <https://ptgmedia.pearsoncmg.com/images/9780735623026/samplepages/9780735623026.pdf>
- <https://freecomputerbooks.com/microsoftOfficeBooks.html>

<b>Certificate Course in MS – OFFICE &amp; GOOGLE APPS - PRACTICAL</b>		
<b>Paper – I</b>	<b>Course Code: 2022MSGP1</b>	
<b>Hrs: 30</b>	<b>Duration: 1 year</b>	<b>Credits: 2</b>

### **Practicals List**

1. Prepare a student bio-data with proper alignments and text formatting.
2. Design a calendar.
3. Mail Merge.
4. Mathematical / Statistical / Logical Functions.
5. Graphs and Charts.
6. Create a student personal info table.
7. Insertion of records into table.
8. Sort the names in ascending order.
9. Creation of forms using MS-Access.
10. Creating an animated presentation with sound effect.
11. Creating a document and share it using google drive.



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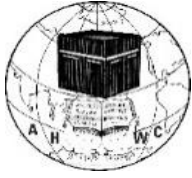


**CERTIFICATE COURSE**

**MS – OFFICE & GOOGLE APPS**

**Course Outcome**

<b>CO No.</b>	<b><i>Expected Course Outcomes</i></b> <b><i>Upon completion of this course, the students will be able to:</i></b>	<b>Cognitive Level</b>
1	Outline the salient features of word processing with special reference to Microsoft Word	U / C / Ap
2	Discuss the main features and application of Spread Sheet emphasizing Microsoft Excel	U / C / Ap
3	Describe the features of Microsoft PowerPoint	U / C / Ap
4	Demonstrate techniques for creating, reviewing, sending, receiving, organizing, and manage your email messages on Gmail.	U / C / Ap
5	Demonstrate incorporating other Google apps with Gmail	U / C / Ap
<b>Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create</b>		



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**CERTIFICATE COURSE**

**About Course**

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, types of operating systems, and types of input and output devices. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.

**Pedagogical Outline**

The duration of the course is 1 year which incorporates theory classes, practical classes, assignments, quizzes and internal tests.

**Eligibility**

All programme students are eligible to enrol for this course.

**Scope of the Course**

Almost every job today and jobs of the future require some technical knowledge. Learning more about computers and computer software required for the job is a competitive edge against others who may be applying for the same job.

<b>Certificate Course in INTRODUCTION TO COMPUTERS</b>		
<b>Paper – II</b>	<b>Course Code: 2022ITC12</b>	
<b>Hrs: 35</b>	<b>Duration: 1 year</b>	<b>Credits: 2</b>

### **Course Objectives**

- To elucidate the students with computer knowledge.
- Provide the opportunity to familiarize with the use of latest technological devices.
- Demonstrate the use of various hardware devices and its functionality.
- Provide foundational or “computer literacy” curriculum that prepares students for life-long learning of computer concepts and skills.

## Course Content

### Unit – I

6L

**Computer Basics:** Introduction – Characteristics of computers – Evolution of Computers – Generation of Computers – Classification of Computers – The Computer System – Applications of Computer.

### Unit – II

6L

**Computer Organization and Architecture:** Central Processing Unit – Inside a Computer – Data representation in Computer – Coding Schemes.

### Unit – III

6L

**Input and output Units:** Computer Input Units – Various Input Devices - Computer Output Units – Various Output Devices.

### Unit – IV

6L

**Computer Memory and Storage:** Introduction – memory hierarchy – Random Access Memory (RAM) – Read only memory (ROM) – RAM, ROM and CPU interaction – Types of Secondary storage devices – Magnetic tape – Magnetic disk – Types of magnetic disk – Optical Disk – Type of Optical disks.

### Unit – V

6L

**Operating System:** Introduction – Operating System definition – Evolution of Operating System – Types of Operating System – Functions of Operating System.

**Computer Software:** Introduction – Computer software – definition – categories of software – Installing and uninstalling software – software piracy – software terminologies.

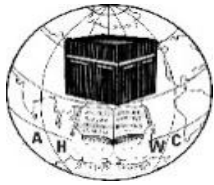
**Introduction to Internet:** WWW and Web Browsers - Concept of Internet - Applications of Internet - connecting to internet - Knowing the Internet - Basics of internet connectivity related troubleshooting - World Wide Web - Web Browsing softwares - Search Engines - Understanding URL - Using e-governance website.

### Text Books

- Introduction to Computers and Information Technology - D. Glory Ratna Mary , S. Selvanayahi, V. Joseph Peter - Shekina Publication

### Web References

- [INTRODUCTION TO COMPUTERS \(sdngnet.com\)](http://sdngnet.com)
- [CS 1011 Home Page \(umn.edu\)](http://umn.edu)



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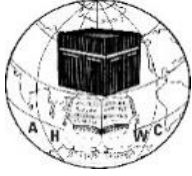
**CERTIFICATE COURSE**

**INTRODUCTION TO COMPUTERS**

**Course Outcome**

<b>CO No.</b>	<b><i>Expected Course Outcomes</i></b> <b><i>Upon completion of this course, the students will be able to:</i></b>	<b>Cognitive Level</b>
1	Introduce to the world of computers with its evolution history	U / C / Ap
2	Discuss with the architecture of computers and its organizations	U / C / Ap
3	Explain the functionality of various input and output devices	U / C / Ap
4	Demonstrate techniques for various storage devices.	U / C / Ap
5	Describe about the operating system and various software's	U / C / Ap

**Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create**



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**CERTIFICATE COURSE**

**About Course**

**C** is one of the most popular and highly recognized programming languages in the world. In fact, it is the first programming language. Indeed, it is strongly recommended to **start the programming journey with C language** as it helps to understand a lot of underlying processes on the ground level, which enhances your fundamental knowledge & boosts your confidence, which further makes it easier for you to learn other high-level programming languages as well. This course introduces Conditional Statements, Loops, Jump Statements, and many more.

**Pedagogical Outline**

The duration of the course is 1 year which incorporates theory classes, practical classes, assignments, quizzes and internal tests.

**Eligibility**

All programme students are eligible to enrol for this course.

**Scope of the Course**

After completing the C Language Certification Course students can have a plethora of career options. It opens up a wide range of opportunities and there are bright chances of getting the job. Aspirants certified in the course can join in various fields like MNC's, BPOs, Government and Private Organisations and KPOs.

<b>Certificate Course in PROGRAMMING IN C</b>		
<b>Paper – III</b>	<b>Course Code: 2022PIC13</b>	
<b>Hrs: 35</b>	<b>Duration: 1 year</b>	<b>Credits: 2</b>

### **Course Objectives**

- Provide in-depth training programming skills.
- Understand and develop programs independently.
- Understand the methods of debugging and correcting programs.
- Provide a proper foundation for learning other programming languages.

## Course Content

### Unit – I

6L

**Introduction To C Programming:** History – Features of C - Structure of a C program – C Tokens – Character Set – Keywords – Identifiers – Constants – Types of Variables – Declaration of variable – Initialization of variables – Data types – Comments – Header files.

### Unit – II

6L

**Operators and Expressions:** Introduction – Arithmetic operators – Logical operators – Relational operators – Assignment operators – Increment / Decrement operators – Short hand operators – Bitwise operators – Special operators – Hierarchy of operators – **Expressions:** Integer, real and mixed expressions – Type conversion – printf() and scanf() functions – Escape Characters – getchar() and putchar() functions – Formatted and Unformatted I/O functions.

### Unit – III

6L

**Control Statements:** Simple if – if ... else – else if ladder – switch – **Looping Statements:** while – do ... while – for loop – goto – continue – break statements. **Arrays:** Definition – Array elements – Declaration – Initialization – One dimensional array – Two dimensional array.

### Unit – IV

6L

**Strings:** Introduction – Declaring and Initializing Strings – Reading Strings – Writing Strings – String Handling Functions – **Functions:** Definition – Declaration – return statement – Function call – Call by value – Call by reference – Categories of Functions.

### Unit – V

6L

**Structures:** Structure Definition – Declaration – Initialization – Accessing and giving values to structures – Nested Structures – Arrays within structures – Union: Declaration – Initialization – Differences between Structures and Union.

### Text Books

- C and Data Structures with Lab Manual – R. K. Selvakumar & I. Edwin Dayanad, N. V. Publications.

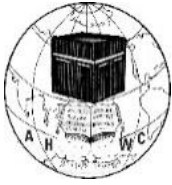
### Reference Books

- Programming in ANSI C – E. Balagurusamy
- Programming in C – Ashok N. Kamthane

<b>Certificate Course in PROGRAMMING IN C - PRACTICAL</b>		
<b>Paper – II</b>	<b>Course Code: 2022PICP2</b>	
<b>Hrs: 30</b>	<b>Duration: 1 year</b>	<b>Credits: 2</b>

### **Practicals List**

1. Operators and expressions.
2. Decision making statements.
3. Looping statements.
4. Arrays.
5. Functions.
6. Strings.
7. Structures.
8. Unions.



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## CERTIFICATE COURSE

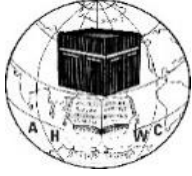


### PROGRAMMING IN C

#### Course Outcome

CO No.	<i>Expected Course Outcomes</i> <i>Upon completion of this course, the students will be able to:</i>	Cognitive Level
1	Ability to define and manage data structures based on problem subject domain	U / C / Ap
2	Ability to work with textual information, characters and strings.	U / C / Ap
3	Ability to work with arrays of complex objects.	U / C / Ap
4	Ability to handle possible errors during program execution.	U / C / Ap

**Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create**



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**CERTIFICATE COURSE**

**About Course**

A Web Designing course enables students to learn various techniques, tools and programming languages in order to create and maintain web pages. Hyper Text Markup Language (HTML) is one of the most popular languages to design Web Pages and their content. It uses different tags, elements, images and some latest components to make Web Pages more attractive and user-friendly.

**Pedagogical Outline**

The duration of the course is 1 year which incorporates theory classes, practical classes, assignments, quizzes and internal tests.

**Eligibility**

All programme students are eligible to enrol for this course.

**Scope of the Course**

Since students learn about varied designing and editing tools through the Web Designing course syllabus, they can explore many creative and hi-tech jobs across varied sectors.

<b>Certificate Course in WEB DESIGN USING HTML</b>		
<b>Paper – IV</b>	<b>Course Code: 2022WDH14</b>	
<b>Hrs: 35</b>	<b>Duration: 1 year</b>	<b>Credits: 2</b>

### **Course Objectives**

- Students will understand the concept of web page design in an effective manner.
- Enables students to learn various techniques, tools and programming languages in order to create and maintain web pages.
- Understand how HTML elaborates the general structure of a web page design as well as tags and the concept of HTML files.
- Provide the employment opportunity as an entrepreneur to develop a web page.

## Course Content

### Unit – I

6L

**Introduction to the Internet:** Computers in Business – Networking – Internet – Electronic Mail (E- Mail) – Resource Sharing – World Wide Web. **Internet technologies:** Modem – Internet Addressing – Physical Connections – Telephone Lines. **Internet Browsers:** Internet Explorer – Netscape Navigator.

### Unit – II

6L

**Introduction to HTML:** Designing a home page – History of HTML – HTML Generations – HTML Documents – Anchor Tag – Hyper Links – Sample HTML Documents. **Head and Body Sections:** Header Section – Title – Prologue – Links – Colorful Web Page – Comment Lines – Some sample HTML Documents.

### Unit – III

6L

**Designing the Body Section:** Heading Printing – Aligning the Headings – Horizontal Rule – Paragraph – Tab Settings – Images and Pictures – Embedding PNG Format Images. **Ordered and Unordered Lists:** Lists – Unordered Lists – Headings in a List – Ordered Lists – Nested Lists.

### Unit – IV

6L

**Table Handling:** Tables – Table creation in HTML – Width of the Table and Cells – Cells Spacing Multiple Rows/Columns – Coloring Cells – Column specification – Sample Tables. **Forms:** Action Attribute – Method attribute – Enctype Attribute – Drop Down List – Sample Forms.

### Unit – V

6L

**Frames:** Frameset Definition – Frame Definition – Nested Framesets. **A Web Page Design Project:** Frameset Definition – Animals – Birds – Fish.

### Text Books

- World Wide Web design with HTML - C. Xavier – Tata McGraw Hill Publication

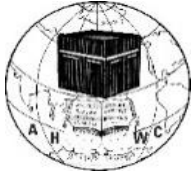
### Web References

- Html & Css (wtf.tw)
- HTML And CSS The Complete Reference Book | Programming Book (programming-book.com)

<b>Certificate Course in WEB DESIGN USING HTML - PRACTICAL</b>		
<b>Paper – III</b>	<b>Course Code: 2022WDHP3</b>	
<b>Hrs: 30</b>	<b>Duration: 1 year</b>	<b>Credits: 2</b>

### **Practicals List**

1. Create an internal link using images.
2. Design a calendar.
3. Designing a web page using flowers.
4. Displaying a list of five cars using frames.
5. Build a simple quiz.



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**CERTIFICATE COURSE**

**WEB DESIGN USING HTML**

**Course Outcome**

<b>CO No.</b>	<b><i>Expected Course Outcomes</i></b> <b><i>Upon completion of this course, the students will be able to:</i></b>	<b>Cognitive Level</b>
1	Introduction to the Internet and their various technologies and how to surf the Internet using browsers.	U / C / Ap
2	Initiate the web page design by using HTML Language	U / C / Ap
3	Design the web page with more salient features in the language	U / C / Ap
4	Design the web page layout with the help of tables and interactive forms.	U / C / Ap
5	Explain the frame layout with different projects in web design	U / C / Ap
<b>Cognitive Level: R-Remember; U-Understanding; Ap-Apply; An-Analyze; E-Evaluate; C-Create</b>		