

Employability

B.Sc Information Technology Semester IV

(For the students admitted during the academic year 2017 – 2018 and onwards)

Course: Part III - Core VI .NET Programming	Course Code:417G06
Semester: IV	No. of Credits: 3
No. of hours : 60 Hrs	C:T:S 52:4:4
CIA Max. Marks: 25	ESE Max. Marks: 50

(C:Contact hours, T: Tutorial, S: Seminar)

Course Objectives:

- To enable the students to create powerful user interfaces using web forms.
- To train the students to develop software by combining their own source code with .NET Framework and other libraries.
- To discuss the fundamentals of developing modular application by using object oriented methodologies.
- To explain the ASP.NET web application execution model.

Syllabus:

Unit I:10 Hrs

Introduction to Programming: Introducing a Programming Language - High-Level Language - Low-Level Language - Converting Source Code to Machine Language Code - Explaining Program Development Cycle.

Introducing .NET Framework 4.0 and Visual Studio 2010: Exploring the Benefits of .NET Framework - Exploring the versions of .NET Framework - Explaining .NET framework 4.0 Architecture - Exploring New Features of .NET Framework 4.0 - Installing, Opening and Exploring Visual Studio 2010 - Introducing the key enhancements in Visual Studio 2010 IDE – Developing Applications in Visual Studio 2010.

VISUAL BASIC 2010: Getting Started with Visual Basic 2010: New features of Visual Basic 2010 - Visual Basic 2010 Keywords - Operators - Operator precedence - Data types in Visual Basic 2010 - Visual Basic Statements – Variables – Constants – Arrays – Enumerations.

(Chapters : 1,2)

Unit II:

10 Hrs

Windows Forms: Introducing the Form class - Performing common form operations - Creating Message boxes - Creating Input Boxes - Creating Dialog boxes - Handling events - Adding comments to the code.

Windows Forms Controls-I: Introducing the control class - Label - Textbox – Button – RadioButton - CheckBox - Combobox - Listbox - GroupBox - Panel - PictureBox - Timer - ProgressBar. Windows Forms Controls-II: Toolstrip – Menustrip – Statusstrip - Working with Dialog Boxes.

(Chapters : 2,3,4)

Unit III: 12 Hrs

Windows Presentation Foundation: Exploring the improvements in WPF 4.0 - Explaining WPF 4.0 Architecture - Describing types of WPF Applications - Exploring WPF 4.0 Designer - Using XAML in WPF - Working with WPF controls - Working with resources and styles.

LINQ in Visual Basic 2010: Creating a simple LINQ Query - Working with standard query operators - Implementing LINQ to ADO.NET - Using anonymous types in queries - Using lambda expressions in LINQ Queries - Exploring parallel LINQ.

(Chapters : 5,7)

Unit IV: 10 Hrs

Introduction to ASP.NET 4.0: Exploring versions of ASP.NET - Describing benefits of ASP.NET - Exploring new features in ASP.NET 4.0 - Exploring ASP.NET 4.0 web applications - Explaining ASP.NET 4.0 provider model - Explaining ASP.NET 4.0 coding models - Implementing code sharing - Compiling an ASP.NET 4.0 web application - Understanding dynamic compilation in ASP.NET 4.0.

Standard Controls: Introducing the web control class - Label - Textbox - Button - Image button - Listbox - Radiobutton - Checkbox - Table - Wizard - Calendar – AdRotator Control. Navigation Controls: Working with the SiteMapPath control - Working with the Menu control - Working with the TreeView Control.

(Chapters : 1,2,3)

Unit V: 10 Hrs

Validation Controls: Introducing the BaseValidator class - RequiredFieldValidator - RangeValidator - RegularExpressionValidator - CompareValidator - CustomValidator – ValidationSummary.

Login Controls: Creating a User Account in ASP.NET 4.0 - Login - LoginName - LoginView -LoginStatus - Passwordrecovery - Configuring the web.config File for Password Recovery. Database Controls: Working with ADO.NET - Introducing datasource - Working with Data-Bound controls.

(Chapters : 4,5,6)

Book for study:

Unit	Name of the Book	Authors	Publisherswith Edition
Unit I, II, III, IV,V	.NET 4.0 PROGRAMMING Course Kit”	Vikas Gupta	Dreamtech Press, 2014.

Books for Reference:

Serial No	Name of the Book	Authors	Publisherswith Edition
1.	Visual Basic .NET Programming Bible	Bill Evjen,JasonBeres,	Wiley India(P) Ltd,NewDelhi.Reprint

			2012
2.	.NET 4.5 programming	Kogent Solutions Inc	BLACK BOOK”, Dreamtech press 2013.

E-Resources :

1. <http://csharp-video-tutorials.blogspot.com>
2. <http://file.allitebooks.com/20150526/Practical%20Database%20Programming%20with%20Visual%20Basic.NET,%202nd%20Edition.pdf>
3. https://www.visualchart.com/ContentManagement/Development/Manuals/EN/vbNet_programming.pdf

Name of the course: PHP and MySQL

Name of the Programme B.Sc Information Technology

**B.Sc. Information Technology
Semester VI**

(For the students admitted during the academic year 2017 – 2018 and onwards)

Course:Core XII PHP and MySQL	Course Code: 617G12
Semester:VI	No. of Credits: 4
No. of hours : 75 Hrs	C:T:S65: 6:4
CIA Max. Marks: 25 Marks	ESE Max. Marks: 75 Marks

(C:Contact hours, T:Tutorial, S:Seminar)

Course Objectives:

- To train students in becoming proficient PHP/MySQL web developers.
- To gain the knowledge in String and Array handling function.
- To gain the knowledge in Control Structures and Functions
- Students will have basic understanding of the web technology and be able to architect, write, debug, and run complete web applications using PHP and MySQL.

Syllabus:

Unit I: 11 Hrs

Why PHP and MY SQL: What is PHP?-What is MY SQL?-Deciding on a Web Application Platform. Server Side Scripting Overview: Static HTML-Client Side Technologies-Server Side Scripting-What is Server Side Scripting Good For? Learning PHP Syntax and Variables: PHP is Forgiving-HTML is Not PHP- PHP’s Syntax Is C Like-Comments-Variables-Types in PHP-The Simple Types-Output.

Unit II 13Hrs

Learning PHP Control Structures and Functions : Boolean Expression-Branching-Looping-Alternate Control Syntaxes-Terminating Execution-Using Functions-Function Documentation-Defining Your Own Function-Functions and Variable Scope-Function Scope.

Passing Information with PHP:HTTP Is Stateless- GET Arguments-A Better Use for GET-Style URLs-Post Arguments-Formatting Form Variables-PHP Super global Arrays.

[Chapters :5,6]

Unit III 13Hrs

Learning PHP String Handling: Strings in PHP-String Functions - Learning Arrays: The Uses of Arrays-What are PHP Arrays?-Creating Arrays-Retrieving Values-Multidimensional Arrays-Inspecting Arrays-Deleting from Arrays-Iterations. Learning PHP Number Handling: Numerical Types-Mathematical Operators-Simple Mathematical Functions-Randomness -PHP Gotchas.

[Chapters :7,8,9,10]

Unit IV 13Hrs

Introducing Databases and MySQL-What is a Database?- Why a Database?- PHP-Supported Databases-Our Focus-MySQL. Learning Database Administration and Design: Basic MySQL Client Commands- MySQL User Administration- Backups- Replication-Recovery. Integrating PHP and My SQL:Connecting to MySQL-Making MySQL Queries-Fetching Data Sets-Getting Data about Data-Multiple Connection-Building in Error Checking-Creating MySQL Databases with PHP-MySQL Functions- Integrating Web Forms and Databases.

[Chapters :11,14,15,17]

Unit V15Hrs

Improving Database Efficiency: Connection-Reduce, Reuse, Recycle- Indexing and Table Design- Making the Database Work for you-Working with the File System-Working with Cookies and Sessions.

[Chapters :18,23,24]

Books for Reference:

S. No	Name of the Book	Authors	Publishers with Edition
1.	Beginning PHP and MySQL	W.JasonGilmore	Novice to Professional, Fourth Edition,2011.
2.	Head First PHP and MySQL	Lynn Beiyhley and Michael Morrison	”O’Reilly media Inc., 2010.

E-Resources :

1. <https://www.pdfdrive.com/core-php-programming-using-php-to-build-dynamic-web-sites-d21390536.html>.
2. www.freebookcentre.net/web-books-download/PHP-Reference-Beginner-to-Intermediate-PHP-5.html.
3. <http://file.allitebooks.com/20160521/PHP%20and%20MySQL-%20Create%20-%20Modify%20-%20Reuse.pdf>

Name of the course: Project and Viva Voce

Name of the Programme B.Sc Information Technology

B.Sc. Information Technology

Semester VI

(For the students admitted during the academic year 2017 – 2018 and onwards)

Course: Part III Project and Viva Voce	Course Code: 617GPV
Semester: VI	No. of Credits:4
No. of hours : 90	P:T75:15
CIA Max. Marks: 25	ESE Max. Marks: 75

(P:Practical , T:Tutorial)

Course Objectives:

- To estimate the ability of the student in transforming the theoretical knowledge studied so far into application software.
- For enabling the students to gain experience in organization.
- Implement a small project and acquire the necessary confidence to carry out main project in the final year.
- To understand and gain the knowledge of software engineering practices, so as to participate and manage large software engineering projects in future.

Internal [25 Marks]

Max 25 Marks		
Review I	Documentation -03 Presentation - 03 Viva voce- 04	10 Marks
Review II	Documentation -05 Presentation - 03 Viva voce - 05 Submission on Time -02	15 Marks

External [75 Marks]

Max 75 Marks		
External Review	Report Evaluation - 20 Presentation - 10 Viva voce- 20	50 Marks
Internal Review	Viva voce - 25	25 Marks

*** Entrepreneurship**

Name of the course: C Programming and Web designing

Name of the Programme B.Sc Information Technology

B.Sc Information Technology Semester II

(For the students admitted during the academic year 2017 – 2018 and onwards)

Course :Part III - Core Practical II C Programming and Web designing	Course Code :217GP2
Semester : II	No. of Credits: 4
No. of hours : 75	T:P 10: 65
CIA Max. Marks : 40	ESE Max. Marks : 60

(T:Tutorial, P:Practical)

Course Objectives:

- To formulate problems and implement algorithms in C.
- To choose programming components that efficiently solves computing problems in real-world.
- To gain knowledge about the language of the web: HTML and CSS and design rules in constructing web pages and sites.

Syllabus:

List of Programs: 65 Hrs

C Programming:

1. Write a program to find whether the given year is Leap year or not. .
2. Write a program to find biggest number among three numbers.
3. Program to Construct a Pyramid of digits.
4. Create a program to perform Matrix Multiplication.
5. Finding the number of Vowels, Consonants and white spaces in a string.
6. Write a program using Structure.
7. Write a program to perform String operations.

8. Program to find the factorial of the given number using Recursive function.
9. Create a program by passing pointers as arguments to function to Add, Subtract, Multiply and Divide two numbers.
10. Create a program to receive a file name and the names of employees as command line argument and write the text to the File.

#Web Designing:

1. Design a Web page with external and internal links and link between two frames.
2. Design a class timetable using HTML tags.
3. Design a web page using image and list tags also use physical and logical styles to display text.
4. Design a webpage in DHTML using cascading style sheets (Use all attributes).
5. Design a webpage for a College (Using Forms).
6. Design a webpage showing your biodata.

*** Skill development**

Name of the course: Multimedia -Image Designing and Graphics Tool

Name of the Programme B. Sc Information Technology

**B.Sc. Information Technology
Semester III**

(For the students admitted during the academic year 2017 – 2018 and onwards)

Course: Part IV- Skill Enhancement Course I: Multimedia -Image Designing and Graphics Tool	Course Code:317GS1
Semester: III	No. of Credits: 3
No. of hours : 45 Hrs	T:A:P 8:2:35
CIA Max. Marks: 75	ESE Max. Marks: -

(T: Tutorial,A : Activity, P: Practical)

Course Objectives:

- To explain how to import the images and using different styles.
- To apply different type of animation properties.
- Educate clear idea to create brochures, flyers, newsletters, reports and a variety of other Professional-quality documents used for business
- To create different type of invitation to education and real time function purpose.

Syllabus:

Image Designing Tool	35
Hrs	
<ol style="list-style-type: none"> 1. Create a program to draw College Logo using layers. 2. Create a program to draw a Robot using drawing tools. 3. Create a program to import images and apply image effects. 4. Design a program using text tool and apply various format and styles. 5. Create a program for transformation of an object and text. 	

6. Create a program to design an invitation for Book Exhibition using frames.
7. Create a program for converting text to outlines and to image frame.

Graphics Tool

1. Create a program to design Scenery using drawing tools.
2. Create a logo for Car Company using various tools.
3. Create an invitation for an Inter Collegiate competition.
4. Create a program to design an advertisement using Text tool.
5. Create a Banner using multiple layers.

Name of the course: Multimedia - Image Editing Tool

Name of the Programme B. Sc Information Technology

B.Sc. Information Technology Semester IV

(For the students admitted during the academic year 2017 – 2018 and onwards)

Course: Part IV- Skill Enhancement Course II: Multimedia - Image Editing Tool	Course Code:417GS2
Semester: IV	No. of Credits: 3
No. of hours : 45	T:P 10: 35
CIA Max. Marks: 75	ESE Max. Marks: -

(T:Tutorial, P:Practical)

Course Objectives:

- To create different type of sceneries
- To design real time invitation, prospectus and brochures for academic and business purpose.
- To create different type of cartoons.
- To discuss how to apply various image techniques like clone stamp, brush tool and lighting effects.

Syllabus:

List of Programs	35
Hrs	
<ol style="list-style-type: none"> 1. Design Scenery using drawing tools. 2. Design an image using GIF Animation. 3. Design a Sports Day Invitation using 3D text. 4. Create an advertisement by using Clone stamp tools. 5. Create a program for Cartoon effect. 6. Design a brochure using Paint Tools. 7. Create a program using lighting effects with difference clouds. 	

8. Design an image and apply type masking.
9. Design a banner using filter option.
10. Design the movie scene using multiple layers.
11. Use a heal brush tool and make changes in an image.
12. Design a college prospect

Name of the course: Multimedia Animation Tool

Name of the Programme B. Sc Information Technology

Syllabus

Course: Part IV-Skill Enhancement Course III Multimedia Animation Tool	Course Code:517GS3
Semester: V	No. of Credits: 3
No. of hours :45 Hrs	P:T 35:10
CIA Max. Marks: 75	ESE Max. Marks: -

(T:Tutorial, P:Practical)

Course Objectives:

- To gain Knowledge about the design the screen and editing the image by using graphics tools.
- Formulates a working definition of interactive multimedia
- Demonstrate the use of animation, digitized sound, video control.
- To achieve clear idea on basics of creating different animation effects like tweening, morphing, audio etc.

List of Programs:	35 Hrs
<ol style="list-style-type: none"> 1. Draw scenery using Oval, Rectangle and Pencil tools [use Straight Smooth and Freeform lines]. 2. Design a program using text tool and apply different effects. 3. Create a program using Drop Shadow, Drop to Ice and 3D Rotation effects. 4. Design a program using union, intersection and difference options. 5. Design a program with a background and foreground with moving effects. 6. Design a animated button with a gradient in the up state and a text over it. 	

7. Create folders in the library and add different symbols like eyes, head, nose, mouth etc to the folders. Using those symbols assemble different types of faces.
8. Draw a pendulum using motion tweening.
9. Create a program using shape tweening (Morphing).
10. Create a program and apply filter option.
11. Design a scene and add bitmap and sound effect.
12. Create a movie with multiple scenes.

Name of the course: Multimedia Authoring Tool

Name of the Programme B. Sc Information Technology

Syllabus

**B.Sc. Information Technology
Semester V**

(For the students admitted during the academic year 2017 – 2018 and onwards)

Course:Skill Enhancement Course IV: Multimedia Authoring Tool	Course Code:617GS4
Semester: VI	No. of Credits: 3
No. of hours : 45 Hrs	P:T35:10
CIA Max. Marks: 75	ESE Max. Marks: -

(P:Practical , T:Tutorial)

Course Objectives:

- Discuss the fundamental concepts of digital video.
- Report how to perform video editing on a basic level.
- Implement the techniques of video editing.
- Manipulate using open source software.

Syllabus:

**List of Programs:
Hrs**

35

1. Create a program using Transformation effects.
2. Create a program using text and apply different effects.

3. Create a program for text to speech.
4. Create text and graphics for production titles.
5. Create a program using sequences.
6. Design a program by importing images as videos.
7. Create a program and apply filter option.
8. Create a program to import video and apply blending and color correction.
9. Design a program to import audio file and apply effects.
10. Create a program and use artistic effects.
11. Create a program for batch file editor.
12. Create a movie with audio and video effects.