



COURSE PLAN

1.Course Outline			
Course Title	Visual Programming		
Course Code	CA7A3	M	M
Department	Computer Applications	No. of Credits	3
Programme	MCA	Learning Hours	3 Per Week
Pre-requisites Course	Object Oriented Programming	Faculty Name	Dr. R. Gobi
E-mail	gobir@nitt.edu	Telephone No.	0431-2504653
Course Type	Elective	Office	Lyceum 109
Course Materials	https://app.box.com/s/qgnq0a3kie1zz543wbv55vv85xkd210m		

2. Course Overview
<p>This course introduces visual programming using .NET framework with object-oriented programming principles. Emphasis is on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. It also covers event-driven, menu-driven, web forms, basic web navigation controls, and provide the .NET framework to explore artistic programming projects. Upon completion, students should be able to design, code, test and debug at a beginning level.</p>
3. Course Objectives
<p>To understand the principles of graphical user interface design and develop desktop applications and web services using .NET</p>
4. Course Outcomes (CO)
<p>Students will be able to:</p> <ol style="list-style-type: none">1. Define the basics of .NET framework2. Use components in .NET to solve various application related problems3. Design and develop web applications with ASP.NET

5. Course Outcome (CO)	Aligned Programme Outcome (PO)											
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
CO-1	H	H	L									
CO-2	H	H	H	M	M							
CO-3	H	H	H	M	H							

6. Course Teaching and Learning Activities		
Week	Mode of Delivery	Topics
1.	Chalk and Talk, PPT	Introduction to Visual Programming
		.NET Framework and Architecture
		Common Language Runtime (CLR) and Common Type System (CTS)
2.	Chalk and Talk, PPT	Namespaces, Assemblies and Class Libraries
		Memory Management and Process Management
		Visual Programming Principles
3.	Chalk and Talk, PPT	Graphical User Interface
		User-Centered Design and Navigation and Accessibility
		Structure and Elements
4.	Chalk and Talk, PPT	Visual hierarchy and typography
		Graphics, Animation and graphic design
		.NET fundamentals and datatypes
5.	Chalk and Talk, PPT	.NET – Declaration, expression , control structures
		.NET – Class, property, indexer, delegate
		.NET – Function, string, array and encapsulation
6.	Chalk and Talk, PPT	.NET – Inheritance, interface, polymorphism
		.NET – Exception handling, modules
		.NET – Graphics, file handling and data access
7.	Chalk and Talk, PPT	.NET- Forms, Event-Form controls
		.NET – Containers, Menus , Data Control
		.NET – Printing, Reporting
8.	Chalk and Talk, PPT	.NET – Dialogs and Components
		.NET – Single and Multiple Document Interfaces
		Introduction to ASP.NET
9.	Chalk and Talk, PPT	Web pages and Web forms
		Website design, data controls and validation controls
		Introduction to HTML, Navigation Controls and Login Controls
10.	Chalk and Talk, PPT	HTML Reports and Master Pages
		Web services, Architecture and Web Standards
		Summary

- All the relevant material will be available in the course material website.

8. Course Assessment Methods

Sl. No.	Mode of Assessment	Week/Date	Duration	Weightage (%)
1.	Cycle Test – 1	4th week	60 Mins	20
2.	Cycle Test – 2	8th week	60 Mins	20
3.	Assignment test/Seminar	9th week	15 Mins	10
4.	End Semester Exam	-	180 Mins	50
Total				100

9. Essential Readings (Textbooks, Reference books, Websites, Journals, etc.)

1. Matt J. Crouch, "ASP.NET and VB. NET Web Programming", Pearson Education, 2006.
2. Kevin Hoffman, "Microsoft Visual C# 2005 Unleashed", Pearson Education, 2006
3. Sandeep Chatterjee, Janes Webber, "Developing Enterprise Web Services: An Architect's Guide", Pearson Education, 2005
4. Wilbert O. Galitz, "The Essential Guide to User Interface Design: An Introduction to GUI Design Principles and Techniques", Wiley Desktop Editions, 2007.

10. Course Exit Survey

1. The students through the class rep may give their feedback at any time to the course HOD which will be duly addressed.
2. The students may also give their feedback during Class Committee meeting.
3. 'Course Outcome Survey' form will be distributed on the last working day to all the students and the feedback on various rubrics will be analyzed.
4. The COs will be computed after arriving at the final marks.

11. Course Policy

1. Attendance
100% is a must. However, relaxation up to 25% will be given for leave on emergency requirements (medical, death, etc.) and representing institute events.
2. Academic Honesty
 - i) Possession of any electronic device, if any, found during the test or exam, the student will be debarred for 3 years from appearing for the exam and this will be printed in the Grade statement/Transcript.
 - ii) Tampering of MIS records, if any, found, then the results of the student will be withheld and the student will not be allowed to appear for the Placement interviews conducted by the Office of Training & Placement, besides (i).


12. Additional Course Information

The students can get their doubts clarified at any time with their faculty member.

For Senate's Consideration



(Dr. R. Gobi)
Course faculty



(Dr. R. Eswari)
Class Committee Chairperson



(Dr. S.R. Balasundaram)
Head of the Department