SACRED HEART COLLEGE (AUTONOMOUS)

Tirupattur – 635 601, Tamil Nadu, S.India

Ready for Every Good Work

Resi	: (04179) 220103
College	: (04179) 220553
Fax	: (04179) 226423

A Don Bosco Institution of Higher Education, Founded in 1951 * Affiliated to Thiruvalluvar University, Vellore * Autonomous since 1987

Accredited by NAAC (4ᵗʰ Cycle – under RAF) with CGPA of 3.31 / 4 at 'A+' Grade

Name of the Course	Course Code	Name of the Program	Activities with direct bearing on Employability/ Entrepreneurship/ Skill development	Year of introduction
Digital Logic Fundamentals	CA107	BCA	**Employability :** **Content -** Input Unit, Output Unit, Memory Unit , IC Logic Families, Registers and Counters **Activities:** Visualization of Input, Output and Storage devices with its purpose and features, Brain Storming Assignments, Quiz.	2021-22
Internet Concepts and Web Design	CA108	BCA	**Employability :** **Content -** Web Page Creation, Layout webpages CSS & Javascript. **Activities -** Exercise to create a webpage using html Elements, Exercises to improve programming skills.	2021-22

Practical I: Internet Concepts and Web Design	PCA104	BCA	**Employability :** **Content -** Web Page Creation, Layout webpages CSS & Javascript. **Activities -** Exercise to create a webpage using html Elements, Exercises to improve programming skills.	2021-22
Programming with C	CA207	BCA	**Employability:** **Content -** Introduction, Arrays, Functions, Pointers **Activities:** Exercise to create programs using arrays, Working with the concepts of functions and pointers.	2021-22
Operating System	CA208	BCA	**Employability :** **Content -**Process Management, & scheduling,Main-memory management. **Activities -** Improved Class performance using blended learning, Experiential Learning thru' applications to real life situation	2021-22
Practical - II: Programming with C	PCA204	BCA	**Employability:** **Content -** Data Types, Working with Arrays, Functions, Pointers, Control	2021-22

			Structures, Files **Activities:** Demonstration on the utilization of data types, Compling programs on decision making statements, Proficiency in controlling looping statements.		
Computer Networks	CA312	BCA	**Employability :** **Content -** Network layer, IP addresses, DHCP, Network types, Client server programming, DNS and TELNET. **Activities:** Configuring IP addresses to local computers, Exercises to communicate between client and server.		2021-22
Programming with Java	CA313	BCA	**Employability :** **Content -** Basic Concepts, Classes and objects, packages, exception handling and threading, Applets and Awt, SWING. **Activities:** Exercise to create one class and multiple objects, Creating user defined packages and access the packages, Exercises to develop web page.		2021-22

Data Structures using C	CA314	BCA	**Employability** : **Content -** Basic Concepts, Arrays & Stacks and Queues, Linked Lists, Graphs **Activities -** Exercise to learn the concepts of linear and non linear data structures	2021-22
Discipline Specific Elective I - Angular JS	CA315A	BCA	**Employability** : **Content -** MVC, Views and Bootstrap, SEO **Activities -** Demonstrate about MVC model to construct the application using Bootstrap and SEO.	2021-22
Discipline Specific Elective I - Object Oriented Analysis and Design	CA315B	BCA	**Employability :** **Content -** System Analysis and Design **Activities -** Exercise to create a UML diagrams based on requirements	2021-22
Discipline Specific Elective I : System Analysis and Design	CA315C	BCA	**Employability :** **Content -** Software development, testing and deployment **Activities -** Exercise to test existing software with open source testing tools, seminars and assignments on quality assurance.	2021-22

Practical III: Data Structures using C	PCA306	BCA	**Employability** : **Content -** Trees and Graphs **Activities -** Demonstrate on realtime applications using trees and graphs.	2021-22
Practical - IV: Programming with Java	PCA307	BCA	**Employability :** **Content -** Class and Objects, Constructor, Inheritance and Interface, Exception handling, Applets and SWING. **Activities:** Exercise to create one class and multiple objects, Creating user defined packages and access the packages, Exercises to develop web page.	2021-22
Software Engineering	CA412	BCA	**Employability :** **Content -** Architectural design,Risk management and Re engineering. Software Process and Requirements model. **Activities -** Software Cost Estimation,Software Requirements, Software Design and Implementation	2021-22

Enterprise Applications using .NET	CA413	BCA	**Employability :** **Content -** Windows and Web Forms, Data Access **Activities -** Exercise to create a webforms using web controls, Demonstration on access the database and performing CURD operations		2021-22
Relational Database Management System	CA414	BCA	**Employability:** **Content -** Basic Concepts, Data Model , SQL Query Language **Activity:** Exercises to improve SQL query skills , Creating databases using DDL Statements, Assignment and Discussions on data models.		2021-22
Emerging Computing Paradigms	CA415	BCA	**Employability:** **Content -** Commerce Architecture, BlockChain, Crypto Currency, CMS (Content Management System) **Activities:** Case Studies to understand Block Chain, Video lectures about recent tools, installation guidelines, program development using CMS and NoSQL databases, Quiz		2021-22

Practical - V: Enterprise Applications using .NET	PCA406	BCA	**Employability :** **Content -** ASP.NET Applications with Database **Activities -** Demonstrate on creating web applications with CRUD operations	2021-22
Practical – VI : Relational Database Management System	PCA407	BCA	**Employability:** **Content -** DDL, DML, TCL queries, join operations, aggregate functions. **Activity:** Demonstration on DDL,DML TCL queries, Hands-On Training on join operations.	2021-22
Software Testing and Quality Assurance	CA514	BCA	**Employability:** **Content -** Static Testing, Black Box Testing, White Box Testing **Activities:** Identify the scope, risks and objectives of Static, Black Box and White Box testing.	2021-22
Computer Graphics	CA515	BCA	**Employability :** **Content -** 2D Transformations, 3D Transformations **Activities:** Collection of the skills related to 2D transformations	2021-22

			and 3D transformations.	
Enterprise Applications using JAVA	CA516	BCA	**Employability :** **Content -** Software development using Servlets and JSP **Activities -** problem solving using JSP and servlets	2021-22
Programming with Python	CA517	BCA	**Employability :** **Content -** Python IDE and developing APIs with GUI **Activities -** Working with Python IDE and developing APIs with GUI	2021-22
Practical - VII : Enterprise Applications using JAVA	PCA505	BCA	**Employability :** **Content -** Software development using Servlets and JSP **Activities -** problem solving using JSP and servlets	2021-22
Practical - VIII : Programming with Python	PCA506	BCA	**Employability :** **Content -** Developing Python APIs and services **Activities -** Working with Python IDE and developing APIs with GUI	2021-22
Non Major Elective - I: Introduction to	NCA504	BCA	**Employability :** **Content -** Computer Language	2021-22

Information Technology			**Activities -** Teaching the basic concepts of programming skills	
Cloud Computing	CA612	BCA	**Employability :** **Content -** Virtualization, Cloud Computing Architecture, SaaS,PaaS and IaaS. **Activities:** Accessing different services provided by cloud, Deployment of applications and management of user data.	2021-22
Mobile Application Development	CA613	BCA	**Employability:** **Content -** Android - Activities, Intends, Fragments, Views & View Groups, Handling pictures, menus, notifications and SMS, Telephony, Emails using Android **Activities:** Demonstrations, Exercise to create Mobile Apps, Problem Solving and Quiz.	2021-22
Web Programming using PHP	CA614	BCA	**Employability:** **Content -** Control Structures, Arrays, Built-in Functions, Form Handling, Cookies, Session, Filters, MySQL Database with PHP **Activities -** Exercise	2021-22

			to create dynamic web pages, Problem Solving, Demonstrations and Quiz.	
Discipline Specific Elective II : Big Data Analytics	CA615A	BCA	**Employability:** **Content -** NoSQL Database management, R Programming Basics, Data Visualization using R and Statistical Analysis with R. **Activities:** Demonstration on NoSQL databases and R Programs, Exercises using NoSQL database tools and R libraries, Problem Solving and Quiz	2021-22
Discipline Specific Elective II : Cryptography and Network Security	CA615B	BCA	**Employability :** **Content -** Security services and mechanisms, Network Security, Virtual private network and dealing with viruses. **Activities:** Discover how networks work, Network Scavenger Hunt, identiying protocols throughout the day, find out what malware is there in device.	2021-22

Discipline Specific Elective II : Internet of Things	CA615C	BCA	**Employability** : **Content -** Data Analytics with IOT **Activities -** Working with streaming data and analytical methods		2021-22
Practical IX - Mobile Application Development and PHP	PCA607	BCA	**Employability:** **Content -** Mobile Apalications with various domains, Cookies, Session, Filters, Form Handling & Validation, File Handling, File Uploading, Emails, MySQL database with PHP. **Activities -** Exercise to create Mobile Apps and Dynamic Web Pages, Problem Solving, Observation, Demonstrations, Applications to real life situations.		2021-22
Project Work	PCA608J	BCA	**Employability:** **Content -** Developing the Projects with different domains **Activities -** Exercise to create Dynamic Appliactions(Website, APP), Demonstrations of Applications, Applications to real life situations.		2021-22

Non Major Elective - II: Multimedia	NCA604	BCA	**Employability :** **Content -** Editing with Images, Sounds, Videos and Texts, Making Animations Activities - Demonstration on working with images, audio, video and text contents	2021-22