DEPARTMENT OF COMPUTER APPLICATIONS

Bachelor of Computer Applications Course Outcome.

1. To attract young minds to the potentially rich & employable field
Of computer applications.

2. To be a foundation graduate after BCA,

Thereis further educational opportunity to go for an MCA,MSc (CS), MSc (IT), MBA, etc., at this university or atany other University/Institute.

(Or)

Should be able to get entry level job in the field of Information Technology or ITES or they can take up self-employmentin Indian & global software market.

B.C.A Semester. 1. (2017admission).

COURSE TITLE	**Computer Fundamentals & HTML**
COURSE CATEGORY	CORE COURSE
COURSE CODE	BCA1BO1
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Get basic Concepts of Hardware and Software, Computer Languages, Hardware Components and Memory Hierarchy.
CO2	Basics of Computer Organization.
CO3	Explain about Number Systems and Boolean Algebra,Digital Codes,Boolean Operations.
CO4	Fundamentals of Problem Solving:Algorithm,Flow chart.
CO5	Basics of Web Design using HTML.

COURSE TITLE	**Mathematical Foundation of Computer Applications**
COURSE CATEGORY	CORE COURSE
COURSE CODE	BCA1CO1
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Describe about Matrices and its operations.
CO2	Explain methods of solutions for equations like Gauss, Gauss Jordan, Gauss Seidel.
CO3	Explain about vector calculus.
CO4	Explain Differentiation .
CO5	Explain Integration techniques.

COURSE TITLE	**Discrete Mathematics**
COURSE CATEGORY	CORE COURSE
COURSE CODE	BCA1C02
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Explain Mathematical Logic.
CO2	Describe Set Theory and Relations.
CO3	Explain Boolean Algebra, Algebra of Electronic Circuits and its applications.
CO4	Explain in detail about Graph Theory.
CO5	Explain about trees and its applications.
CO6	Describe networks.

B.C.A Semester 2.(2017admission).

COURSE TITLE	Problem Solving using C
COURSE CATEGORY	CORE COURSE
COURSE CODE	BCA2BO2
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Introduction to C Programming
CO2	Explain elements of C Language and Program Constructs,C Operators,I/O operations - Library functions.
CO3	Get idea about how to write Simple C programs.
CO4	Usage ofArrays and Strings,functions,Structures& Union,Pointers ,Files.

COURSE TITLE	Lab Exam of 1st& 2nd Sem.HTML & Programming in C
COURSE CATEGORY	PRACTICAL
COURSE CODE	BCA1BO3
NUMBER OF CREDITS	2
NUMBER OF LAB HOURS	2

COURSE OUTCOMES

CO1	Programs describing concepts of C Language.
CO2	Programs containing basic logic using C.
CO3	Programs describing concepts of HTML.
CO4	Programsfor designing webpages.

COURSE TITLE	Financial &ManagementAccounting
COURSE CATEGORY	CORE COURSE
COURSE CODE	BCA2CO3
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Describe general introduction on accounting and its general application.
CO2	Explain the manual recording like Cash books,Journals and Ledgers.
CO3	Preparation of Trial balance.
CO4	Preparation of Balance sheets.
CO5	Basic principles of Management Accounting.
CO6	Basic principles of marginal costing and Standard costing

COURSE TITLE	Operations Research
COURSE CATEGORY	CORE COURSE
COURSE CODE	BCA2CO4

NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Describe problem solving methods of L.P.P.
CO2	Explain different transportation Techniques.
CO3	Explain different Assignment problems.
CO4	Explain about Network scheduling and discuss about PERT/CPM methods.
CO5	Explain job sequencing models.

B.C.A Semester 3.(2016 admission).

COURSE TITLE	BASIC NUMERICAL SKILLS.
COURSE CATEGORY	GENERAL COURSE 1
COURSE CODE	**A06**
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO6	Give knowledge about Set theory ,usage of Venn Diagram,Matrix operations.
CO7	Solutions of Equations by using Matrix .
CO8	Describes different methods to solve different types of equations.
CO9	Describe about Arithmetic Progression , Geometric Progression and its applications .
CO10	Methods to calculate Simple Interest and Compound interest.
CO11	Introduction about Statistics:-.Scope and Limitations.
CO12	Types of Data, Enquires, and formation of Frequency Distributions.
CO13	Methods to find Averages:-Mean.Median,Mode,Geometric mean ,Harmonic mean.
CO14	Methods to find variations:-Range,QuartileDeviation,Meandeviation,Standard Deviation.
CO15	Methods to find Skewness and Kurtosis.
CO16	Usage of Index numbers,Time Series to find variations .

COURSE TITLE	General Informatics
COURSE CATEGORY	GENERAL COURSE II
COURSE CODE	A12
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Describe about fundamentals of Computers and Operating Systems,Computer Networks.
CO2	Basics of IT,IT and Internet,E-Governance,Electronic Data Inter change,
CO3	Describe about Knowledge Skills for Higher Education.
CO4	Explain basic Concepts ofIPR -
CO5	Explain about Social Informatics:
CO6	Give knowledge about Programmes for Office Management.

COURSE TITLE	Database Design &RDBMS
COURSE CATEGORY	CORE COURSE 3
COURSE CODE	**BCA3B03**
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	40

COURSE OUTCOMES

CO1	Learning basic principles of Database, and its design.
CO2	Understanding the basics of RDBMS.
CO3	Learning the creation ,updation of Databases and its constrains.
CO4	Learning the concepts of Database manipulation using SQL.
CO5	Study the PL/SQL language.

COURSE TITLE	**Data Structures Using C++**
COURSE CATEGORY	CORE COURSE 4
COURSE CODE	**BCA3B04**
NUMBER OF CREDITS	2
NUMBER OF CONTACT HOURS	30

COURSE OUTCOMES

CO1	Learning the basic concepts of Algorithms. Describe basic Principles of Data Structures
CO2	Explain concepts of Linear Data Structures .Describe Arrays and its operations.
CO3	Describe concepts of different Linked lists and operations.Concepts of stack and its implementation using Array and Linked list.
CO4	Describe about Polynomials, Spark Matrices and its implementations.
CO5	Explain about Memory Representations.
CO6	Explain about different types of Queues and its implementation using Array and Linked list.
CO7	Explain concepts of Non Linear Data Structures :-Trees and Graphs and its operations..
CO8	Concepts of different types of Searching,Sorting and Hashing Techniques.

COURSE TITLE	**Financial &Management Accounting**
COURSE CATEGORY	CORE COURSE 5
COURSE CODE	**BCA3C05**
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Basic principles of Accounting. Explain the manual recording like Cash books,Journals and Ledgers. Preparation of Trial balance.
CO2	Analysis and interpretation of Trading accounts and financial Statements.
CO3	Preparation of Balance sheets.
CO4	Explain Ratio Analysis techniques.
CO5	Explain about fund flow statements.
CO6	Explain tools of Managerial decision making.

COURSE TITLE	**Operations Research**
COURSE CATEGORY	CORE COURSE 6

COURSE CODE	BCA3CO6
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Describe problem solving methods of L.P.P.
CO2	Explain different transportation Techniques.
CO3	Explain different Network analysis techniques.
CO4	Understanding the replacement models.
CO5	Understanding different mathematical models for Inventory analysis.

B.C.A Semester 4.(2016 admission).

COURSE TITLE	**ENTREPRENEURSHIP DEVELOPMENT AND PLANNING.**
COURSE CATEGORY	**General Course III.**
COURSE CODE	A13
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	64

COURSE OUTCOMES

CO1	To give basic knowledge to start a business.
CO2	Describe Entrepreneur and Entrepreneurship.
CO3	Get idea about Micro,Small and Medium enterprises.
CO4	To make awareness about Promotionalinstitutions like KINFRA,KITCO,DIC etc and ways of financial support to help entrepreneurs.
CO5	Describe about Project management,Appraisal and Evaluation.
CO6	To make awareness about business opportunities and barriers in Kerala.

COURSE TITLE	**BASICS OF AUDIO AND VIDEO MEDIA.**
COURSE CATEGORY	**General Course IV.**
COURSE CODE	**A14**
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	64

COURSE OUTCOMES

CO1	Understanding the basic concepts of sound and its properties.
CO2	Explain the sound recording techniques and its applications.
CO3	Understanding the various sound recording techniques: Analog and Digital.
CO4	Knowing the basic standards of video recording and its techniques.
CO5	Understanding the JPEG and MPEG standards and its applications.

COURSE TITLE	**Visual Programming Using C#.Net**
COURSE CATEGORY	CORE COURSE 5
COURSE CODE	BCA4BO5
NUMBER OF CREDITS	5
NUMBER OF LAB HOURS	75

COURSE OUTCOMES

CO1	Get familiarization with .Net framework.
CO2	Implementing OOPS concepts using C#.Net
CO3	Explain the Encapsulation,inheritance,Polymorphism in C#.net
CO4	Explain event handling,Exception Handling C#.net.
CO5	Explain how to design GUI.

CO6	Explain the concepts of ADO.Net for database access.

COURSE TITLE	**ProgrammingLaboratory I - DataStructures Using C++**
COURSE CATEGORY	PRACTICAL
COURSE CODE	**BCA4B06**
NUMBER OF CREDITS	2
NUMBER OF CONTACT HOURS	32

COURSE OUTCOMES

CO1	Lab programs for implementing Array operations using C++.
CO2	Lab programs for implementing Linked List operations using C++.
CO3	Programs for performing stack,Queue operations using array and linked list.
CO4	Programs for different types of Sorting and Searching using arrays.

COURSE TITLE	**Programming Laboratory II - RDBMS& C#.Net**
COURSE CATEGORY	PRACTICAL
COURSE CODE	**BCA4B07**
NUMBER OF CREDITS	2
NUMBER OF LAB HOURS	32

COURSE OUTCOMES

RDBMS.

CO1 Programs for Implementing database creation and manipulation using Oracle.

C#

CO2	Programs for implementing Fibonacci series,Calculator,ATM transactions using C#.
CO3	Programs for Implementing keyboard and mouse events.
CO4	Programs for Implementing String Handling and Recursive functions.
CO5	Programs for Implementing delegates .
CO6	Programs for Implementing OOP concepts.
CO7	Programs for Implementing database creation and manipulation.
CO8	Programs for implementing Fibonacci series,Calculator,ATM transactions using C#.
CO9	Programs for Implementing keyboard and mouse events.

CO10 Programs for Implementing String Handling and Recursive functions.
CO11 Programs for Implementing delegates .
CO12 Programs for Implementing OOP concepts.
CO13 Programs for Implementing database creation and manipulation.

COURSE TITLE	**E-Commerce**
COURSE CATEGORY	CORE COURSE
COURSE CODE	**BCA4C07**
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1 Understanding the History of E-Commerce and introduction of trading with Internet.
CO2 Different E-Business Models and E-Transaction.
CO3 Explaining technologies of WWW and E-Marketing
CO4 Explaining traditional vs E-marketing including E-Advertising and E-Branding.
CO5 Explain about E-Security and ethical issues.
CO6 Explain different types of E-Payment systems.
CO7 Understanding idea of Mobile Commerce and other wireless communication issues.

COURSE TITLE	**Management Information Systems**
COURSE CATEGORY	CORE COURSE
COURSE CODE	BCA4CO8
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1 Introduction to Management Information Systems and its structure.
CO2 Role of MIS in Managerial decision making.
CO3 Concepts of human cognition and learning.
CO4 Organizational system concepts applied to MIS.
CO5 Organizational structure and Management concepts.
CO6 Organizational culture and power.
CO7 Describes developing and implementation of system and applying quality assurance techniques.

B.C.A Semester 5.(2015 admission).

COURSE TITLE	**Android Programming**.
COURSE CATEGORY	CORE COURSE8
COURSE CODE	BCA5BO8
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	45

COURSE OUTCOMES

CO1 Describes how to install and work with Android IDE.
CO2 Give an idea about Life Cycle of Android Applications.
CO3 Explain about basic building block of Android Applications.:-Activity, intent, content providers, and Android resources.
CO4 Explain how to create Interfaces using XML for Android applications.
CO5 To get knowledge about other components of window like menus, fragment, action bars etc.
CO6 Get knowledge about permanent data storage in Android Applications using SQLite database.

COURSE TITLE	**Java Programming**
COURSE CATEGORY	CORE COURSE9
COURSE CODE	BCA5BO9
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	30

COURSE OUTCOMES

CO1 History and basic components of Java Programming.
CO2 Describes different types of classes :-Wrapper class,Math**class,Array** class etc.
CO3 Explain OOP concepts :-class,Object,Inheritance,Polimorphism etc.
CO4 Describe about new concepts Abstract classes, Interfaces and their applications.
CO5 Different ways of Input Output Streaming in Java.
CO6 Explain Exception handling in Java
CO7 Explain Database connectivity and transaction of data with Java Aplications.
CO8 Web programming concepts –Applet programming in Java.
CO9 Give idea to create interfaces using AWT classes in Java.
CO10 Give idea bout Event handling.

COURSE TITLE	**Computer Networks**
COURSE CATEGORY	CORE COURSE10
COURSE CODE	BCA5B10
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	45

COURSE OUTCOMES

CO1	Introduction to Computer Networks and explain OSI ,Tcp/Ip models.
CO2	Explain different types of Switching.
CO3	Explain various techniques for Error detection and correction in Data Link Layer.
CO4	Different Data Compression and Accessing methods.
CO5	Describe Networking and Internetworking devices,various Internet Protocols,Routing Algorithms.
CO6	Explain various Transport Layer functions like Congestion control and Quality assurance services.
CO7	Explain Network Administration Process and Protocols used for that.

COURSE TITLE	**Computer Organization and Architecture Microprocessor and Applications**
COURSE CATEGORY	CORE COURSE11
COURSE CODE	BCA5B11
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	75

COURSE OUTCOMES

CO1	Basics of Computer Organization and Design.
CO2	Explain Computer Instruction Formats,Cycles, Input/Output Unit ,Memory Fetching etc.
CO3	Explain different Computer Arithmetic operations.
CO4	Explain memory hierarchy.
CO5	Explain Input/Output Organizations and Data Transfer .
CO6	Explain Parallel Processing and Pipelining.

COURSE TITLE	**Microprocessor and Applications.**
COURSE CATEGORY	CORE COURSE12
COURSE CODE	BCA5B12
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	45

COURSE OUTCOMES

CO1	Understanding basic Architecture of 8086 and its pin configurations.
CO2	Explain different addressing modes of 8086 .
CO3	Different instruction sets and interrupts of 8086.
CO4	Explain the assembler directives and using macros.
CO5	Explain different peripherals and interfacing of 8086.
CO6	Introduction to advanced microprocessors and BIOS and DOS interrupts.

B.C.A Semester 6.(2015 admission)

COURSE TITLE	Web Programming
COURSE CATEGORY	CORE COURSE13
COURSE CODE	BCA6B13
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1 Understanding basics of Web server,Web Hosting, Web Browser and basics of Web Page designing.
CO2 Introduction to Javascript.
CO3 Learning Client side and Server side Scripting.
CO4 Implementing OOPS concepts using PHP.
CO5 How to interact with databases through Internet.

COURSE TITLE	Software Engineering
COURSE CATEGORY	CORE COURSE14
COURSE CODE	BCA6B14
NUMBER OF CREDITS	3
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1 Introduction to Software Engineering Disciplines.
CO2 Learning Engineering practices in Software development.
CO3 Familiarize with Function-Oriented Software Design.
CO4 Learning various Software development methodologies and practices.
CO5 Studying various Evaluation methods in Software Development.

COURSE TITLE	Operating Systems.
COURSE CATEGORY	CORE COURSE15
COURSE CODE	BCA6B15
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	75

COURSE OUTCOMES

CO1 Learning basics of Operating system,its structure and fundamental functions.
CO2 Understanding Processes and its life cycle.
CO3 Familiarizing with Memory Management techniques.
CO4 Different Scheduling Algorithms and Deadlock Management.
CO5 Understanding File Management and Device Management.

COURSE TITLE	Programming Laboratory- III: Java &Web Programming
COURSE CATEGORY	CORE COURSE
COURSE CODE	BCA6B16
NUMBER OF CREDITS	2
NUMBER OF CONTACT HOURS	90

COURSE OUTCOMES

CO1	Programs to study oop concepts of Java.
CO2	Programs to create interfaces, reading and processing of data.
CO3	Programs of advanced concepts like networking, usage of stack classes .
	PHP
CO4	Programmes for web applications using PHP.

COURSE TITLE	Project &ProgrammeViva Voce
COURSE CATEGORY	CORE COURSE
COURSE CODE	BCA6B17
NUMBER OF CREDITS	2
NUMBER OF CONTACT HOURS	32

COURSE OUTCOMES

CO1	Got professional skills of doing software Projects.
CO2	Get opportunity of working - by doing projects outside of college.
CO3	Get awareness to face interview.
CO4	Get idea about current technologies.

COURSE TITLE	Software testing and Quality assurance
COURSE CATEGORY	ELECTIVE COURSE
COURSE CODE	BCA6B18X
NUMBER OF CREDITS	4
NUMBER OF CONTACT HOURS	60

COURSE OUTCOMES

CO1	Get knowledge about Software,Engineering,Software development Life Cycle.
CO2	Explain about Quality assurance and Quality control.
CO3	Start about two types of Testing :-White box and Black box Testing and How to conduct.
CO4	Explain System and Acceptance Testing
CO5	Explain Performance Testing
CO6	Explain about Test Planning, Management, Execution and Reporting in Detailed manner.

CO7	Give idea about Test Metrics and Measurements
CO8	Get knowledge about Different Software tools for testing.