Department of BCA

2024-25

Learning Outcomes, Program Outcome, Program Specific Outcome and Course Outcome

Learning Outcomes

After successfully completing this course, the students will be able to:

➢ Acquired knowledge for understanding data and select suitable methods for data analysis.

➢ Explain the basic concepts and principles of strategic management analyze the internal and external environment of business.

➢ Outline a defensive programming concept. Ability to handle possible errors during program execution.

➢ Improve the ability to use standard input/output and file input/output operations.

➢ State the importance of Human Resource function in planning and staffing organizational manpower requirements.

➢ Specify how the managerial tasks of planning, organizing, and controlling can be executed in a variety of circumstances.

➢ Use accounting and business terminology, explain the objective of financial reporting and related key accounting assumptions and principles.

➢ Explain the basic principles of creating Java applications with graphical user interface (GUI).

➢ Describe the options for employee separation/termination.

Programme Outcomes

PO1: Students will able to understand problem solving competence while using C language.

PO2: Students will gain the knowledge of awareness about automation.

PO3: Students will have an exposure towards complex accounting problems and their solution.

PO4: Students will apply appropriate techniques, resources, modern IT tools in understanding, analyzing, developing computer programs in the areas related to algorithm, web design and networking for efficient design of computer based system.

PO5: Enhance communication skills so that they can effectively present technical information in oral and written reports.

PO6: Converse in basic computer terminology and possess the knowledge of basic hardware peripherals.

PO7: Demonstrate knowledge and understanding of the computer and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO8: Identify, analyze, and define computing problems using logical and analytical skills

PO9: Write complex SQL queries to retrieve information for business decision making from databases with many tables.

PO10: Evaluate the performance of memory allocation and replacement techniques.

PO11: Design data warehouse with dimensional modelling and apply OLAP operations.

PO12: Communicate effectively in oral and written forms in technical and non-technical environments..

PO13: Provides students with knowledge, general competence and analytical skills in computer programming on an advanced level.

PO14: Gain ability to apply knowledge of computer science to the real world issues.

PO15: an ability to apply software engineering perspective through software design and construction, requirements analysis, verification, and validation, to develop solutions to modern problems such as security, data science, and systems engineering.

PO16: Apply Indian philosophical principles in daily life.

PO17: Understand environmental concerns and sustainable practices in technology usage.

PO18: Analyze various cloud programming models and apply them to solve problems on the cloud.

PO19: Apply the appropriate system development life cycle and methodology to new software development and IT administration projects as well as integrating legacy systems in to current environments.

PO20: Have a facility with abstract reasoning including the ability to abstract from concrete situation and make ideas precise by formulating them mathematically or statistically.

PO21: Get to learn programming languages such as C, C++, HTML, SQL, DBMS, Networking etc.

PO22: Will be well equipped with thorough knowledge of various softwares.

PO23: Will be familiar with working with various operating system platforms.

Programme Specific Outcome

PSO1- Explain the basic concepts of Human resources management and its applications in the individual, team and organizational levels.

PSO2- Imparted knowledge required for planning, designing and building Complex Application Software Systems.

PSO3- Deliver professional service with updated technologies in computer application based career.

PSO4- Produced entrepreneurs who developed customized solutions for small and medium enterprises.

PSO5- Our graduates will apply basic principles and practices of computing, grounded in mathematics and science to successfully complete hardware, software related engineering projects to meet customer business objectives, productively engage in research.

PSO6- Solve problems in areas like Software Design and Development, Computer Architectures and Operating System, web systems, Computer Networks and Database Management Systems to address critical challenges in the field of IT.

PSO7- Write SQL DDL, DML commands to create, modify and drop objects within a relational database. Retrieve and store information in a relational database using SQL in a multi-user, web based environment.

PSO8- The ability to understanding, analyzing and applying management concepts in the areas related to strategy, human resources and finance for efficient running of the business organization of varying complexity in competitive era.

PSO9:- Students will learn relevant managerial accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.

PSO10-Use the underlying unifying structures of mathematics. (i.e. sets, relations and functions, logical structure) the relationship among them.

PSO11- Demonstrate practical applications of these statistical and optimization methods in the field of Computer Sciences and Applications.

PSO12- Ability to understand and write effective project reports in multidisciplinary environment in the context of changing technologies.

PSO13: Build Up programming, analytical and logical thinking abilities

PSO-14: Know the recent developments in IT, features possibilities and limitations and understand the value of life ling learning.

PSO15: Exhibit knowledge to secure corrupted system, protect personal data and secure computer networks in organisations

Course Outcome of BCA-I (Sem-I)

PROBLEM SOLVING TECHNIQUES (SEC101)

CO1: Understand basic terminology of computers, problem solving, programming Languages and their evolution (Understand)

CO2: Create specification from problem requirements by asking questions to disambiguate the requirement statement. (Create)

CO3: Design the solution from specification of a problem and write pseudo code of the algorithm using basic building blocks or structured programming constructs (Sequence, Selection and Repetition statement). (Create)

CO4: Translate an algorithm into a C computer program (Create)

CO5: Testing and analyzing programs using debugging tools. (Analyze)

CO6: To Understand the basics of Digital Electronics and Binary Number System

CO7: To Learn the implementation of Combinational Circuit.

CO8: To Learn the implementation of Sequential Circuit.

CO9: To Understand the Organization of basic computers and concept of memory organization

GENERAL ENGLISH AEC102

CO10: Explain concept of Word Formation in English Language.

CO11: Illustrate use of phrases and clauses in sentences in English Language.

CO12: Identify common errors in English Writing.

CO13: Develop reading and listening, writing and speaking skills.

INDIAN VISION FOR HUMAN SOCIETY MDE 101

CO14: Explain the concept of "Vasudhaiva Kutumbkam" and its realization process as a base for the development of vision for a human society.

CO15: Identify the universality in humans and its coexistence in existence.

CO16: Demonstrate the sense of responsibility, duties, and participation of individual for establishment of fearless society.

CO17: Explain the apparently rational, verifiable and universal solution from ancient Indian knowledge system for the holistic development of physical, mental and spiritual wellbeing of one and all, at the level of individual, society, nation and ultimately the whole world.

ENVIRONMENTAL SCIENCE AND SUSTAINABILITY VAC101

CO18: Explore the basic environmental concepts and issues relevant to the business and management field.

CO19: Recognize the interdependence between environmental processes and socioeconomic dynamics.

CO20: Determine the role of business decisions, policies, and actions in minimizing environmental degradation.

CO21: Identify possible solutions to curb environmental problems caused by managerial actions.

CO22: Develop skills to address immediate environmental concerns through changes in

Business operations, policies, and decisions.

मराठी(MARATHI)-१ AEC103-I

CO23: मराठी भाषा व साहित्य अभ्यासाची अभिरुची निर्माण होईल.
CO24: मराठी साहित्याचे आकलन विश्लेषण व समीक्षण करता येईल.
CO25: मराठी कवितेचे आस्वादन व मूल्य निर्णय करता येईल.
CO26: वैचारिक व ललित स्वरूपाचे लेखन करता येईल.
CO27: पत्रव्यवहाराचे कौशल्य अवगत होईल.

प्रयोजनमूलक हिंदी और कहहताएँ AEC103-II

CO28: प्रयोजनमूलक हिंदी के प्रित छात्रों मे रुची बढाना।
CO29: प्रयोजनमूलक हिंदी एवं उसकी उपयोिगता से छात्रों को परिरचत कराना।
CO30: काव्य एवं कहानी िधवा का आस्वाद िववेचन एवं महत्व समझाना।
CO31: हिंदी किव एवं कहानीकारों तर्ा उनकी रचनाओं से परिरचत कराना।
CO32: सािहत्य के माध्यम से नैितक मूल्य राष्ट्र ाीय मूल्य एवं उित्तदाियत्व के प्रित आस्ा िनमााण करना।
CO33: हिंदी भाषा के श्रवण,पठण, विचार ,कल्पना एवं लेखन क्षमता का छात्र मे िवकास करना।

संस्कृ त (SANSKRIT)-I AEC103-III

CO34: वेदाांचा परिचय करून देतात.
CO35: ऋग्वेदातील निवडक सूक्ोाोाोाोाोांचा अभ्यास करतात.
CO36: सुसंस्कृतील सांकल् पना समजून घेतात
CO37: अ‍िुननकतेच्या अनुषांगाने चे अवलोकन संस्कृतील करतात.

GERMAN-I AEC103-IV

CO38: Recognize basic grammar used in German Language
CO39: Demonstrate familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type.
CO40: Execute himself /herself and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has.
CO41: Debate and interact in a simple way provided the other person talks slowly and clearly and is prepared to help.
CO42: Assess development in German language vocabulary by interacting with others
CO43: Construct presentation of how to use and scope of German Language.

BCA-I-Sem-II

MATHEMATICS FOUNDATIONS TO COMPUTER SCIENCE – II CC103

CO44: This course helps the students to understand correct lines of arguments and proofs.

CO45: This course introduces mathematical techniques that are foundations for understanding advanced computational methods, including numerical methods and optimization.

CO46: This course helps the students to understand various problem-solving strategies and methods to tackle both theoretical and practical challenges in computer science.

DATA STRUCTURES CC104

CO47: Understand the fundamental concepts of Data Structures and their applications.

CO48: Develop problem-solving skills using Data Structures.

CO49: Implement Data Structures using C programming language

OPERATING SYSTEMS CC105

CO50: Explain the fundamentals of the operating system.

CO51: Comprehend multithreaded programming, CPU scheduling, process management, process synchronization, memory, deadlocks, and storage management.

CO52: Compare the performance of CPU scheduling algorithms

CO53: Identify the features of I/O and File handling methods.

OBJECT ORIENTED PROGRAMMING USING JAVA
SEC102

CO54: To introduce the object oriented programming system concepts

CO55: To introduce syntax and semantics of Java programming language

CO56: To develop modular programs using Java

CO57: To setup JDK environment to create, debug and run Java programs

WEB TECHNOLOGIES SEC103

CO58: To understand the concepts and architecture of the World Wide Web, Markup languages along with Cascading Style Sheets.

CO59: To understand the concepts of event handling and data validation mechanisms.

CO60: To understand the concepts of embedded dynamic scripting on client side programming.

CO61: To develop modern interactive web applications

INDIAN CONSTITUTION VAC201

CO62: Explain concept of the Indian Constitution, particularly from the perspective of economic governance and business

CO63: Employ a nuanced analytical framework about ongoing constitutional debates and battles which affect the domain of business

CO64: Develop a sense of how questions of economic growth have to be balanced with other constitutional commitments, including social and economic justice.

मराठी (MARATHI)-2 उद्यम झेप-2 AEC103-I

CO65: मराठी भाषा व साहित्य अभ्यासाची अभिरुची निर्माण होईल .

CO66: मराठी साहित्याचे आकलन विश्लेषण व समीक्षण करता येईल.

CO67: मराठी कवितेचे आस्वादन व मूल्य निणाय करता येईल.

CO68: वैचाररिक व ललित स्वरूपाचे लेखन करता येईल .

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(HINDI)-2
प्रयोजनमूलक हिंदी और कहानियाँ AEC103-II

CO69: प्रयोजनमूलक हिंदी के प्रित छात्रों मे रुची बढाना।

CO70: प्रयोजनमूलक हिंदी एवं उसकी उपयोिगता से छात्रों को परिरचत कराना।

CO71: काव्य एवं कहानी िधवा का आस्वाद िववेचन एवं महत्व समझाना।

CO72: हिंदी कहानीकारों तर्‌ा उनकी रचनाओं से परिरचत कराना।

CO73: सािहत्य के माध्यम से नैितक मूल्य राष्टर ाीय मूल्य एवं उित्तदाियत्व के प्रित आस्‌ा िनमााण करना।

संस्कृ त (SANSKRIT)-II AEC103-III

CO74: सांस्कृ त ननतीसाधाीत्याचा पररचयकरून देतो.

CO75: धनतोदेशातील कर्‌ाााांचा पररचय करून देतो.

CO76: कर्‌ाााांमून धाोणाऱ्या नीतीबोििचे नवश्लेषण धकतो.

GERMAN-II AEC103-IV

CO77: Recall everyday familiar expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Make use of the basic grammar concepts correctly

CO78: Demonstrate familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type.

CO79: Execute himself /herself and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has.

CO80: Debate and interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

CO81: Assess development in German language vocabulary by interacting with others

JAPANESE-II
AEC103-V

CO82: Recognize basic grammar used in Japanese Language

CO83: Relate and demonstrate regional languages into Japanese language.

CO84: Experiment Japanese vocabulary in day-today speaking.

CO85: Debate and interact in a simple way with other persons.

CO86: Develop basic Japanese language skills (listening, speaking, writing, and reading).

RUSSIAN-II AEC103-VI

CO87: Explain basic knowledge of Russian Language grammar.

CO88: Construct meaningful and grammatically correct sentences in Russian language.

CO89: Develop Russian Language skill (reading, writing, listening, speaking).

BCA-II (SEM-III)

RDBMS - CC 301

CO90: Identify the basic concepts and various data model used in database design ER modelling concepts and architecture use and design queries using SQL

CO91: Apply relational database theory and be able to describe relational algebra expression.

CO92:: tuple and domain relation expression from queries.

CO93: Prepare SQL queries that use multiple tables.

CO94: Understand the relational database design principles.

CO95: Understand the basic concepts and the applications of RDBMS systems.

CO96: Prepare SQL queries that involve correlated and non correlated subqueries, outer joins, inner joins, self joins.

CO97: Assess the differences between subqueries and joins.

CO98: Use built-in functions successfully.

CO99: Produce user friendly output by using formatting features of SQL.

CO100: Analyse the effects of various data types and the use of NULLs.

CO101: Prepare SQL queries for ordering data and grouping data.

CO102: Write SQL queries for data definition/manipulation/alteration.

CO103: Identify and describe security concepts including user-ids, levels of privileges, views.

CO104: Describe and demonstrate constraints,triggers and cursors.

CO105: Produce programs with embedded SQL including processing stored procedures.

CO106: Understand the basics of SQL and construct queries using SQL.

Computer Networks and Internet CC 302

CO107: Explain computer networking basics.

CO108: Describe how signals are used to transfer data between nodes.

CO109: Identify the different types of network topologies and protocols

CO110:Discuss and **Analyze** flow control and error control mechanisms and apply them using standard data link layer protocols

CO111: Describe the layered protocol model.

CO112: Enumerate the layers of the OSI model and TCP/IP. Explain the function(s) of each layer

CO113: Analyze, specify and design the topological and routing strategies for an IP based networking infrastructure.

CO114: Understand network security and define various protocols such as FTP, HTTP, Telnet, DNS

Data Structure using C- CC 303

CO115: Implement appropriate data structure for the required programs using a programming language such as C.

CO116: Demonstrate the linear and non-linear data structures, sorting and searching operations, hashing.

CO117: Analyse and implement various searching and sorting techniques.

CO118: Implement various types of linked lists and their applications.

CO119: Classify different data structures such as stack, queues, linked list, trees and traversal algorithms.

CO120: Solve problem involving graphs, trees and heaps and hashing concept

CO121: Understand basic data structures such as arrays, linked lists, stacks and queues.

Elements of Statistics AEC 304

CO122: Describe the scope and necessity of Statistics.

CO123: Explain different types of data. (Qualitative, Quantitative, discrete and continuous)

CO124: Construct frequency, distribution, histogram, frequency polygons, frequency Curve, pie charts, ogives.

CO125: Calculate measures of Central Tendency i. e Mean, Mode, Median

CO126: Analyse statistical data using appropriate measures of central tendency.

CO127: Calculate measures of dispersion (Q.D, S,.D, Variance, C. V)

CO128: Analyse statistical data using appropriate measures of Dispersion.

CO129: calculate & interpret the correlation coefficient between two variables.

CO130: understanding the basic concepts of probability and to final probability of event. Use the basic probability rules, including additive and multiplicative laws.

CO131: Compute conditional probabilities and Describe and Use Bayes' theorem.

Human Resource Management and Materials Management (AEC305)

CO132: Recognize the basic concepts of human resource management.

CO133: Discuss the Applicability of Human Resource Planning Process.

CO134: Elaborate Performance Appraisal, Training and Development, Wage and salary Administration.

CO135: Explain functions of material management.

CO136: Demonstrate 5 R in purchasing and Inventory control techniques.

CCL 306 Lab Course-V Based on CC301

CO137: Identify the basic concepts and various data model used in database design ER modelling concepts and architecture use and design queries using SQL

CO138: Apply relational database theory and be able to describe relational algebra expression. **CO229:**: tuple and domain relation expression from queries.

CO139: Prepare SQL queries that use multiple tables.

CO140: Prepare SQL queries that involve correlated and non correlated subqueries, outer joins, inner joins, self joins.

CO141: Assess the differences between subqueries and joins.

CO142: Use built-in functions successfully.

CO143: Produce user friendly output by using formatting features of SQL.

CO144: Analyse the effects of various data types and the use of NULLs.

CO145: Prepare SQL queries for ordering data and grouping data.

CO146: Write SQL queries for data definition/manipulation/alteration.

CO147: Identify and describe security concepts including user-ids, levels of privileges, views.

CO148: Describe and demonstrate constraints,triggers and cursors.

CO149: Produce programs with embedded SQL including processing stored procedures.

CCL 307 Lab Course VI based on CC303

CO150: Differentiate static and dynamic memory allocation techniques.

CO151: Implement various operations on linear and non-linear data structures.

CO152: Analyze and implement different searching and sorting techniques.

CO153: Identify the appropriate data structure to solve a given problem.

CO154: Identify the appropriate data structures and algorithms for solving real world problems.

CO155: Describe data structures such as stacks, queues, search trees, and hash tables to solve various computing problems.

SEC SB308 Skill Development III

CO156: Understand business etiquette and manners.

CO157: Identify strengths and weaknesses.

CO158: Analyse the self and others through various techniques.

CO159: Build confidence and stage daring. Evaluate short term and long term goals and set goals through SMART technique.

BCA-II (SEM-IV)

Object Oriented Programming Using C++ - CC 401

CO160: Analyze, write, debug, and test basic C++ codes using the approaches introduced in the course.

CO161: Classify inheritance with the understanding of early and late binding, generic programming.

CO162: Examine object-oriented programming and advanced C++ concept.

CO163: Use virtual and pure virtual function and complex programming language.

CO164:- Explain dynamic memory management techniques using pointers, constructors, destructors, etc.

CO165: Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects.

Software Engineering - CC 402

CO166: Distinguish life cycle models, requirement elicitation techniques, understand the concept of analysis and design of software.

CO167: Develop SRS document.

CO168: Use of analysis and design tools for system development.

CO169: Prepare software engineering concepts in software development to develop quality software.

CO170: Evaluate the various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.

CO171: Plan a software engineering process life cycle, including the specification, design, implementation, and testing of software systems that meet specification, performance, maintenance and quality requirements

CO172: Demonstrate the software project management skills through case studies.

PHP- CC 403

CO173: explain the environment of PHP programming Language.

CO174: Develop web applications using PHP.

CO175: List the major elements of the PHP & MySQL work and explain why PHP is good for web development.

CO176: Explain various operators in PHP.

CO178: The difference between GET and POST requests.

CO179: How to use cookies to store some data in the browser and pass it to the next request.

CO180: How to use a session cookie to store data on the server instead of in the browser.

CO181: How to upload files to the website.

CO182: Develop program using control statements.

CO183: Develop program using functions and array.

CO184: Perform database operations on PHP.

Entrepreneurship Development - AEC 404

CO185: Discuss the concept of entrepreneurship.

CO186: Define characteristics, function and types of entrepreneurs and know the role of Entrepreneurship in Economic Development

CO187: Identify Business Opportunities and prepare business plan.

.**CO188:** Know project finance agencies.

CO189: Identify New Opportunities and Challenges in digital entrepreneurship.

Lab Course-VII Based on CC401- CCL 406

CO190: Prepare students in programming using object oriented concepts with C++.

CO191: Solve the concepts of object-oriented programming.

CO192: Developing applications using Friend functions, Inheritance and polymorphism.

CO193: Design and implement programs using classes, objects and operator overloading.

CO194: Relate virtual and pure virtual function & complex programming situations.

Lab Course-VIII Based on CC403 CCL 407

CO195: Install & configure MySQL server.

CO196: Write a simple PHP program using expressions and operators.

CO197: Develop simple applications to update, delete table from database.

CO198: Write a simple program to demonstrate various built in string functions.

CO199: Write a simple PHP program to set cookies and write it.

CO200: Write a PHP program to create and manipulate array.

CCL 408 Mini Project

CO201: Design and develop dynamic web pages with good aesthetic sense of designing and latest technical know-how's.

CO202: Have a good understanding of Web Application Terminologies, Internet Tools other web services.

CO203: Learn how to link and publish websites

SECSB409 Environmental Studies

CO204: Gain knowledge about environment and develop public Awareness.

CO205: Gain knowledge about ecosystem and conservation. And Students will learn about increase in population growth and its impact on environment.

CO206: Students will learn about natural resource, its importance and environmental impacts of human activities on natural resource.

CO207: Gain knowledge about the conservation of biodiversity and its importance.

CO208: Aware students about problems of environmental pollution, its impact on human and ecosystem and control measures.

.BCA-III (SEM-V)

Java Programming- CC 501

CO209: Gain knowledge about basic Java language syntax and semantics to write Java programs and use concepts such as variables, conditional and iterative execution methods etc.

CO210: Demonstrate the fundamentals of object-oriented programming in Java, including defining classes, objects, invoking methods etc and exception handling mechanisms.

CO211: Understand the principles of inheritance, packages and interfaces.

CO212: Use the Java SDK environment to create, debug and run simple Java programs.

CO213: Demonstrate object oriented concept like inheritance, polymorphism, encapsulation and data abstraction practically.

CO214: Demonstrate concurrent applications using threads; describe problems related to concurrent programming and how to solve these problems.

CO215: Implement applications with simple graphical user interfaces.

Data Warehousing and Data Mining - CC 502

CO216: Describe different methodologies used in data mining and data ware housing.

CO217: Explain the analysing techniques of various data

CO218: Develop a data mining application for data analysis using various tools

CO219: Characterize the kinds of patterns that can be discovered by association rule mining.

CO220: Discover interesting patterns from large amounts of data to analyze for predictions and classification

CO221: Characterize the kinds of patterns that can be discovered by association rule mining.

CO222: Study the dimensional modelling technique for designing a data warehouse

CO223: Study data warehouse architectures, OLAP and the project planning aspects

CO224: Evaluating Clustering Algorithms, Partitioning, K-Means Algorithm

CO225: Describe the Architecture of a Data Mining system.

CO226: distinguish the various Data pre-processing Methods.

CO227: Perform classification and prediction of data

IT Security-CC 503

CO228: Understand the concept and need of IT security,

CO229 : Identify different security threats to information systems.

CO230 : Describe security controls used for IS security.

CO231: Understand provisions in IT Act 2000 and Design Security policy for IT Enabled Organization.

Elective-I . Python Programming- DSE 504

CO232: Develop algorithmic solutions to simple computational problems.

CO233: Express proficiency in the handling of strings and functions.

CO234: Explain programs using simple Python statements and expressions.

CO235: Explain control flow and functions concept in Python for solving problems.

CO236: Define and demonstrate the use of built-in data structures "lists" and "dictionary"

CO237: Use Python data structures –lists, tuples & dictionaries for representing compound data.

CO 238 : Explain files, modules and GUI in Python for solving problems

Elective-II Digital Marketing(GE 505)

CO239: Recognize the stages pertaining to human behaviour while identifying factors influencing

CO240: Learn the applications of Digital Marketing.

CO241: Analyse the different digital marketing avenues.

CO242: Examine digital marketing tools.

CO243: Build strategies for growth marketing.

CCL 506 Lab Course-IX Based on CC501

CO244: Student should know the model of object oriented programming and fundamental features of an object oriented language.

CO245: Student should know how to test, document and prepare a professional looking package for each business project.

CO246: Write a computer program to solve specified problems and to use the Java SDK environment to create, debug and run simple Java programs.

CO247: Explain and develop programs for inheritance, multithreading, applets, exception handling and file handling.

CCL 507 Lab Course-X Based on DSE504

CO248: Explain basic principles of Python programming language

CO249: Demonstrate programs using simple Python statements and expressions.

CO250: Demonstrate use of control flow and functions concept in Python for solving problems.

CO251: Implement programs of handling of strings and functions.

CO252: Use functions and represent Compound data using Lists, Tuples and Dictionaries,

implement files, modules and GUI applications

BCA-III (SEM-VI)

CC 601 Cloud Computing

CO253: Explain the fundamental principles of Cloud Computing.

 CO254: distinguish the importance of virtualization in distributed computing and how this has enabled the development of Cloud Computing.

CO255: Explain the core concepts of the cloud computing paradigm: how and why this paradigm shift came about, the characteristics, advantages and challenges brought about by the various models and services in cloud computing.

CO256: Describe cloud computing application

DSE 602 Elective-I   Android Programming

CO257: Explain the history of Android development and what is required to build Android apps

CO258: Demonstrate their understanding of the fundamentals of Android operating systems

CO259: Explain and use key Android programming concepts

CO260: Install and configure Android application development tools.

CO261: Design and develop user Interfaces for the Android platform.

CO262: Develop various Android applications related to layouts & rich uses interactive interfaces

CO263: Develop UI based Mobile Application using Android Studio.

CO264: Design and develop an application using Database.

CO265: Use SQLite to implement data storage.

Elective-II. ERP GE 603

CO266: Explain concept, need and significance of ERP.

CO267: Demonstrate different ERP models with their subsystem

CO268: Evaluate features of ERP products, select ERP application and plan ERP project.

CO269: Describe organizational opportunities and challenges in the design system within a

Business scenario.

AEC 604 Soft Skills & Personality Development

CO270: Maintain positive attitude and use soft skills.

CO271: Take initiative in a activity and lead the groups.

CO272: Maintain good manner and etiquette

CO273: Participate in debate competition, group discussion activities an mock interviews.

CCL 606 Lab Course XI Based on DSE 602

CO274: Building a sample Android application using Android Studio.

CO275: Design and develop user interfaces for mobile apps using basic building blocks, UI components and

application structure using android studio.

CO276: Implement activities with dialogs, spinner, fragments and navigation drawer by applying themes.

CO277: Write simple programs and develop small applications using the concepts of UI design, layouts and preferences

CO278: Develop mobile applications using SQLite.

CCL 607 Major Project

CO279: Implement their ideas/real time industrial problem/ current applications from their domain.

CO280: Develop plans with help of team members to achieve the project's goals.

CO281: Estimate and cost the human and physical resources required, and make plans to obtain the necessary resources.

CO282: Allocate roles with clear lines of responsibility and accountability and learn team work ethics.

CO283: Communication skills to effectively promote ideas, goals or products.

CO284: Design the software using concepts of SDLC and SE.

AEC 605 Industrial Visit

CO285: Students will able to implement knowledge in real applications •

CO286: Develop software to solve problem •

CO287: Students will able to implement all phases of SDLC in practice •

CO288: Students are able to perform the job of Analyst, Programmer and tester. •

CO289: Insight of Software development process

ABBREVIATIONS

GUI- graphical user interface.

SQL- Structured Query Language.

OLAP -Online analytical processing.

IT. -Information technology.

DDL- Data Defination Language.

DML- Data Manipulation Language.

DBMS- Database Management System.

OS- Operating System.

Linux - Lovable Intellect Not Using XP.

FIFO- First In, First Out.

LIFO-Last In Last Out.

DCL - Data Control Language .

APL- Above Poverty Line.

SDLC- Software Development Life Cycle.

SE- Software engineering.

ADO.**Net-**ActiveX Data Object.