Course Outcomes

BCA 1st Semester

Mathematics (UGCA1901)

CO1 Define various mathematical notions.
CO2 Explain different terms used in basic mathematics.
CO3 Illustrate various operations and formulas used to solve mathematical problems.
CO4 Organize data in various models.
CO5 Prepare solutions for various real-life problems

Fundamentals of Computer and IT(UGCA1902)

CO1 Identify of input and output devices of Computers.
CO2 Utilize the functioning of various components of computer system
CO3 Define the role of Operating system
CO4 Prepare documents using word processing, Spreadsheet and Presentation Graphics Software's.
CO5 Highlight the Internet safety, legally, and other issue

Problem Solving using C(UGCA1903)

CO1 Express the logical flow used in Programming.
CO2 Design algorithms for solving various real-life problems
CO3 Implement programs using C.
CO4 Choose the right data type and statements for programs.
CO5 Explain various concepts of C programming language.

English (BTHU103/18)

CO1 The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
CO2 To help the students become the independent users of English language.
CO3 To develop in them vital communication skills which are integral to their personal, social and professional interactions.
CO4 The syllabus shall address the issues relating to the Language of communication.
CO5 Students will become proficient in professional communication such as interviews, group discussions, office environments, important reading skills as well as writing skills such as report writing, note taking et

Human Values, Deaddiction and Traffic Rules (HVPE101-18)

CO1 To help the students appreciate the essential complementarily between 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity which are the core aspirations of all human beings.
CO2 To facilitate the development of a Holistic perspective among students towards life, profession and happiness, based on a correct understanding of the Human reality and the rest of Existence. Such a holistic perspective forms the basis of Value based living in a natural way.
CO3 To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually satisfying human behavior and mutually enriching interaction with Nature

BCA 2ND SEM

Object Oriented Programming using C++ (UGCA1909)

CO1 Outline the role of programming for solving real world problems.
CO2 Explain Object oriented approach for finding Solutions to various problems with the help of C++ language.
CO3 Implement computer-based solutions to various real-world problems using C++
CO4 Select the right Object-Oriented Concept for optimal solution.
CO5 Review different solutions for a common problem.

Computer System Architecture (UGCA1908)

CO1 Identify the various internal and peripheral components of computer system.
CO2 Categorize different number system.
CO3 Outline the role of various components of computer system.
CO4 Identify micro-operations.
CO5 Comment on the design of Combinational & Sequential circuits.

Fundamentals of Statistics (UGCA1907)

CO1 Highlight the need of studying & analysing numbers.
CO2 Identify visualization tools for representing data.
CO3 Describe various statistical formulas.
CO4 Compute various statistical measures.
CO5 Compare result of different statistical measures.

BCA 3rd Sem

Computer Networks (UGCA1913)

CO1 Highlight the characteristics of various protocols.
CO2 Define different network technologies and their application.
CO3 Identify Hardware and software components for designing network.
CO4 Compare the performance of different network media
CO5 Implement various configuration settings

Programming in Python (UGCA1914)

CO1 Explain environment, data types, operators used in Python.
CO2 Compare Python with other programming languages.
CO3 Outline the use of control structures and numerous native data types with their methods.
CO4 Design user defined functions, modules, files, and packages and exception handling methods.
CO5 Write solutions for Object Oriented Programming Concepts

Data Structures (UGCA1915)

CO1 Apply appropriate constructs of Programming language, coding standards for application development
CO2 Select appropriate data structures for problem solving and programming
CO3 Illustrate the outcome of various operations on data structures.
CO4 Identify appropriate searching and/or sorting techniques for wide range of problems and data types.
CO5 Differentiate between various types of data structures

BCA 4TH SEM

Database Management Systems (UGCA1922)

CO1 Define the basic concepts of DBMS
CO2 Design SQL queries.
CO3 Illustrate the concept of data normalization with the help of real-life examples.
CO4 Explain the concept of transaction management.
CO5 Outline features of advanced database management systems.

Operating Systems (UGCA1923)

CO1 Discuss the evaluation of operating systems.
CO2 Explain different resource managements performed by operating system.
CO3 Describe the architecture in terms of functions performed by different types of operating systems.
CO4 Analyse the performance of different algorithms used in design of operating system components.
CO5 Compare the key properties of different types of Operating Systems.

Web Designing (UGCA1927)

CO1 Create pages with simple tags in HTML.
CO2 Design webpages with multiple sections or frames.
CO3 Explain how to link webpages through hypertext or images a links.
CO4 Outline the key web designing concepts using java script.
CO5 Design forms with special controls using HTML.

Software Engineering (UGCA1921)

CO1 Highlight the need of software engineering.
CO2 Outline the phases and activities involved in the conventional software life cycle models.
CO3 Design documents for various phases of software life cycle.
CO4 Compute the complexity of the software based on multiple metrices.
CO5 Identify the tools needed for different types of documents required in software engineering

BCA 5th

Programming in PHP (UGCA1929)

CO1 Outline the importance and benefits of PHP C
O2 Compare Client-Side Script & Server-Side Script.
CO3 Explain the use of control structures, data types used in PHP.
CO4 Implement database connectivity.
CO5 Develop Dynamic Website that can interact with different kinds of Database Languages.

Computer Graphics (UGCA1934)

CO1 Identify different types of Input and Output devices.
CO2 Outline the key characteristics of virtual reality.
CO3 Explain different algorithms to draw shapes like line, circle, point, etc.
CO4 Differentiate between 2-D and 3-D coordinate system
CO5 Define projection.

Programming in Java (UGCA1932)

CO1 Define various Object-Oriented concepts in Java Programming.
CO2 Compare different data types in java.
CO3 Differentiate between built-in and user defined functions/methods, interfaces and packages etc.
CO4 Outline the importance of exception handling in programs.
CO5 Explain advanced concepts like multithreading, applet used in java.

Cloud Computing (UGCA1936)

CO1 Define the concept of cloud computing.
CO2 Outline the benefits if migrating to a cloud solution for different applications.
CO3 Compare different virtualization technologies.
CO4 Identify various resources needed to build cloud.
CO5 Explain various security threats to cloud

BCA 6TH SEM

Android Programming (UGCA1943)

CO1 Prepare environment for working on Android OS.
CO2 Highlight various security issues in Android platform.
CO3 Design innovative User Interface and develop activity for android app.
CO4 Outline the steps for creating database applications.
CO5 Write programs for basic Android based applications.

Artificial Intelligence (UGCA1945)

CO1 Highlight the significance and domains of Artificial Intelligence and knowledge representation.
CO2 Outline the advantages and disadvantages of various search techniques.
CO3 Identify various Expert Systems and AI applications.
CO4 Define the role of AI in different areas like NLP, Pattern Recognition etc.
CO5 Select the right AI tool for different AI based applications.

Information Security (UGCA1948)

CO1 Identify issues involved in the field of information security.
CO2 Categorize various types of viruses.
CO3 Outline the information security risks across de Internet and WWW.
CO4 Explain different encryption techniques.
CO5 Define cryptography.

Course Outcomes (Laboratory)

BCA 1st

Problem Solving using C Laboratory (UGCA1905)

CO1 Select the right statement for the program.
CO2 Experiment with different input values.
CO3 Test the output with boundary conditions.
CO4 Distinguish between various control statements and data types.
CO5 Implement programs for various problems

Workshop on Desktop Publishing (UGCA1904)

CO1 Outline the characteristics of desktop publishing tools.
CO2 Identify the right components for designing documents.
CO3 Apply knowledge in designing various documents.
CO4 Prepare different types of graphic related documents.
CO5 Express the messages through graphical content

Fundamentals of Computer and IT Laboratory (UGCA1906)

CO1 Highlight the features of word processing, spreadsheet and presentation tools
CO2 Identify the right components for its documents on editor, spread sheet and presentation software.
CO3 Prepare documents and apply formatting.
CO4 select the right tool for different requirements.
CO5 Apply various operations.

English Practical/Laboratory (BTHU104/18)

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions and business office environments, important reading skills as well as writing skills such as report writing, note taking etc.

BCA 2ND SEM

Object Oriented Programming using C++ Laboratory (**UGCA1910)**

CO1 Design the classes.
CO2 Illustrate the concept of memory representation for objects.
CO3 Implement programs using OOP concepts for various problems.
CO4 Implement file handling in C++
CO5 Select the right data types to represent class properties.

Computer System Architecture Laboratory (UGCA1912)

CO1 Identify various types of Gates and Circuits.
CO2 Highlight the functioning of various gates and circuits.
CO3 Validate the outcome of various gates and circuits.

CO4 Differentiate between the various types of gates and circuits.
CO5 Outline the use of each type of gate and circuit.

Fundamentals of Statistics Laboratory (UGCA1911)

CO1 Create Frequency table and Graphs for data representation.
CO2 Apply various statistical operations using statistical tool like excel.
CO3 Compute various statistical measures using statistical tool like excel.
CO4 Analyse real life data using statistical tool.
CO5 Prepare data in different formats and styles.

BCA 3rd Sem

Computer Networks Laboratory (UGCA1916)

CO1 Outline the key features of various protocols
CO2 Implement network configuration settings for an operating system
CO3 Prepare different types of cables for networking.
CO4 Design network model using network simulation tool
CO5 Implement various setting on FTP, Proxy and other servers.

Programming in Python Laboratory (UGCA1917)

CO1 Outline various programming constructs like data types and control structures of Python.
CO2 Implement different data structures.
CO3 Implement modules and functions.
CO4 Illustrate concept of object-oriented programming.
CO5 Implement file handling.

Data Structures Laboratory (UGCA1918)

CO1 Implement Dynamic memory allocation.
CO2 Create different data structures in C/ C++
CO3 Implement various operations of all data structures
CO4 Illustrate the outcome of various operations with the help of examples.
CO5 Write programs to implement various types of searching and sorting algorithms

PC Assembly & Troubleshooting (UGCA1919)

CO1 Identify various components of computer systems.
CO2 Differentiate between types of processors required for different computer systems.
CO3 Explain the steps to install, connect and configure various peripheral devices
CO4 Execute the troubleshooting issues in Computer Systems
CO5 Explain how resources can be shared over network

PC Assembly & Troubleshooting Laboratory (UGCA1920)

CO1 Identify key component of computer system while assembling a system.
CO2 Implement installation and configuration of computer system
CO3 Perform installation, configuration and sharing of peripheral devices.
CO4 Solve troubleshooting issues in Computer Systems
CO5 Execute dual booting.

BCA 4TH SEM

Database Management Systems Laboratory (UGCA1925)

CO1 Differentiate between DDL, DML and DCL commands
CO2 Implement DDL, DML and DCL commands
CO3 Write integrity constraints on a database
CO4 Design Databases and Tables in relational model for some project related to society welfare
CO5 Implement PL/SQL

Operating Systems Laboratory (UGCA1926)

CO1 Implement the installation and configuration of different operating systems.
CO2 Write programs for different scheduling algorithms.
CO3 Execute various commands in Vi editor
CO4 Implement the dual boot installation
CO5 Execute commands in shell programming

Web Designing Laboratory (UGCA1928)

CO1 Design pages with simple tags in HTML
CO2 Create web pages with Audio and Video content in it.
CO3 Illustrate the movement from one web page to another
CO4 Implement advanced web designing concepts using java script
CO5 Execute a small web passed project for the benefit of society.

Software Engineering Laboratory (UGCA1924)

CO1 Identify the scope and objective of different domains that have impact on society
CO2 Create data flow diagrams
CO3 Compute software complexity using latest tools
CO4 Design a software engineering process life cycle.
CO5 Implement specification, design, implementation, and testing process using latest tools

BCA 5th Sem.

Programming in PHP Laboratory (UGCA1930)

- CO1 Write scripts for basic web page designs
- CO2 Design the work flow of web page with the help of various control statements
- CO3 Differentiate between client side and server-side scripting
- CO4 Illustrate the concept of static and dynamic websites
- CO5 Implement the database concepts in PHP

Programming in Java Laboratory (UGCA1938)

- CO1 Execute Core Java concepts.
- CO2 Illustrate the role of different data type, operators and control statement in java with the help of programs.
- CO3 Write programs to handle exceptions
- CO4 Implement multithreading in java
- CO5 Execute interfaces and packages.

Cloud Computing Laboratory (UGCA1942)

- CO1 Identify major commercial projects in the field of cloud computing
- CO2 Design basic cloud applications
- CO3 Execute basic functionalities of open-source tools like Open Stack.
- CO4 Implement virtualization

CO5 Define major services provided by cloud service provider.

BCA 6TH SEM

Android Programming Laboratory (UGCA1944)

CO1 Prepare environment for working on Android OS.
CO2 Program basic Android based applications.
CO3 Highlight various security issues in Android platform.
CO4 Implement database applications.
CO5 Design innovative User Interface and develop activity for android app.

Artificial Intelligence Laboratory (UGCA1954)

CO1 Identify right tool for different AI based problems.
CO2 Develop basic applications using AI tools.
CO3 Represent various real life problem domains using logic-based techniques and use this to perform inference or planning.
CO4 Outline the use of Bayesian approach to solve uncertain problems.
CO5 Implement basic Natural Language processing programs.

Information Security Laboratory (UGCA1954)

CO1 Outline various types of attacks.
CO2 Categorize various types of viruses.
CO3 Prepare solutions to various threats
CO4 Review security policy
CO5 Implement Encryption Techniques