Department of Computer Applications

Course Outcomes

S.No.	Name of the Course	CO Code	Course Outcomes
1	**Mathematics**	**UGCA1901**	1.Represent data using various mathematical notions.
			2. Explain different terms used in basic mathematics.
			3. Describe various operations and formulas used to solve mathematical problems.
2	**Fundamentals of Computer and IT**	**UGCA1902**	1.Understanding the concept of input and output devices of Computers
			2. Learn the functional units and classify types of computers, how they process information and how individual computers interact with other computing systems and devices.
			3. Understand an operating system and its working, and solve common problems related to operating systems
			4. Learn basic word processing, Spreadsheet and Presentation Graphics Software skills.
3	**Problem Solving using C**	**UGCA1903**	1. Student should be able to understand the logic building used in Programming.
			2 .Students should be able to write algorithms for solving various real life problems.
			3. To convert algorithms into programs using C .
4	**Workshop on Desktop Publishing**	**UGCA1904**	1.The students will gain professional skills of Desk Top Publishing Tools like
			designing, Printing & Publishing by using various tools.
			2.Develop skills in printing jobs through basic understanding of a variety of designingtools.
			3.Apply these concepts and knowledge in designing field including practice from text formatting to final publishing.

			4.Workshops are included to enhance professional skills like Brochures, Flexes,Business Cards, Certificates and News Letter layouts etc.
5	**Problem Solving using C Laboratory**	**UGCA1905**	1 Students should be able understand the logic building used in programming
			2 Students should be able to write algorithms for solving various real-life problems
			3 Students should be able to convert the algorithms into computer programs using C language.
6	**Fundamentals of Computer and IT Laboratory**	**UGCA1906**	1 Familiarizing with Open Office (Word processing, Spreadsheets and Presentation).
			2 To acquire knowledge on editor, spread sheet and presentation software.
			3 The students will be able to perform documentation and accounting operations.
			4 Students can learn how to perform presentation skills.
7	**English**	**BTHU103-18**	1.The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
			2. To help the students become the independent users of English language.
			3. To develop in them vital communication skills which are integral to their personal, social and professional interactions.
			•4.The syllabus shall address the issues relating to the Language of communication.
			5.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 etc.
8	**English Practical/ Laboratory**	**BTHU104/18**	1. The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
			2.To help the students become the independent users of English language.
			3.To develop in them vital communication skills which are integral to personal, social and professional interactions.
			4.The syllabus shall address the issues relating to the Language of communication.

	Human Values, De-addiction and Traffic Rules	HVPE101-18	1.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.
			2. 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.
			3. 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.
9	Fundamentals of Statistics	UGCA1907	1 Understand the science of studying & analyzing numbers.
			2 Identify and use various visualization tools for representing data.
			3 Describe various statistical formulas. CO4 Compute various statistical measures.
			4 Compute various statistical measures.
10	Computer System Architecture	UGCA1908	1 Know about the basic functioning of various parts of computer system from hardware point of view and interfacing of various peripheral devices used with the system.
			2 Learn number system and various types of micro-operations of processor.
			3 Learn the communication of various components through common bus
			4 Learn how to design Combinational & Sequential circuits
11	Object Oriented Programming using C++	UGCA1909	1. To learn programming from real world examples.
			2. To understand Object oriented approach for finding Solutions to various problems with the help of C++ language.
			3 To create computer based solutions to various real-world problems using C++
			4. To learn various concepts of object oriented approach towards problem solving

12	Object Oriented Programing using C++ Laboratory	UGCA1910	1.To learn programming from real world examples.
			2 To understand Object oriented approach for finding Solutions to various problems with the help of C++ language.
			3 To create computer based solutions to various real-world problems using C++
			4 To learn various concepts of object oriented approach towards problem solving
13	Fundamentals of Statistics Laboratory	UGCA1911	1.Represent data using various Frequency table and Graphs.
			2. Apply various operations/ formulas using any software/package to solve statistical problems.
14	Computer System Architecture Laboratory	UGCA1912	1 .The students will be able to perform number system conversions.
			2. The students will understand the function of all components of Computer architecture.
			3.The students will understand various types of basic, combinational & universal logic gates
			4.The students will learn how to design Combinational circuits like Adder, Subtractor, Decoder, Encoder, Multiplexer, Demultiplexer
			5. The students will learn how to design Sequential circuits like Flip Flops, Counters
15	Environmental Studies	EVS102-18	1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
			2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
			3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
			4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

16	**Computer Networks**	**UGCA1913**	1.familiar with the different Network Models.
			2. Understand different network technologies and their application.
			3. update with different advanced network technologies that can be used to connect different networks
			4 .familiar with various hardware and software that can help run a smooth network
17	**Programming in Python**	**UGCA1914**	1 Familiar with Python environment, data types, operators used in Python
			2 Compare and contrast Python with other programming languages.
			3 Learn the use of control structures and numerous native data types with their methods.
			4 Design user defined functions, modules, and packages and exception handling methods.
			5 Create and handle files in Python and learn Object Oriented Programming Concepts.
18	**Data Structures**	**UGCA1915**	1 Apply appropriate constructs of Programming language
			2 Use appropriate data structures for problem solving and programming
			3 Use algorithmic foundations for solving problems and programming.
			4 Apply appropriate searching and/or sorting techniques for application development.
			5 Develop programming logic and skills.
19	**Computer Networks Laboratory**	**UGCA1916**	1 Understand different network technologies and their application
			2 Be updated with different advanced network technologies that can be used to connect different networks
			3 Be familiar with various hardware and software that can help run a smooth network
20	**Programming in Python Laboratory**	**UGCA1917**	1. Solve simple to advanced problems using Python language.
			2 .Develop logic of various programming problems using numerous data types and control structures of Python.
			3. Implement different data structures.
			4. Implement modules and functions
			5 Design and implement the concept of object oriented programming structures. CO6 Implement file handling.

21	**Data Structures Laboratory**	**UGCA1918**	1.Apply appropriate constructs of Programming language, coding standards for application development
			2. Develop programming skills for solving problems.
22	**PC Assembly & Troubleshooting**	**UGCA1919**	1.Assemble and set up computer systems.
			2. Configure and install computers
			3.Install, connect and configure various peripheral devices
			4.Diagnose and Troubleshoot issues in Computer Systems
23	**PC Assembly & Troubleshooting Laboratory**	**UGCA1920**	1.Assemble and set up computer systems.
			2 .Configure and install computers
			3. Install, connect and configure various peripheral devices
			4. Diagnose and Troubleshoot issues in Computer Systems
24	**Software Engineering**	**UGCA1921**	1.Aware about the engineering approach to analysis, design and built the software
			2. Understand the phases and activities involved in the conventional software life cycle models
			3. Analyse problems, and identify and define thecomputing requirements appropriate to its solution.
			4. Apply design and development principles in the construction of software systems of varying complexity
			5. Apply current techniques, skills, and tools necessary for computing practice.

25	**Database Management Systems**	**UGCA1922**	1.Understand the basic concepts of DBMS
			2. Formulate, using SQL, solutions to a broad range of query and data update problems.
			3. Demonstrate an understanding of normalization theory and apply such knowledge to the normalization of a database.
			4 .Understand the concept of Transaction and Query processing in DBMS.
26	**Operating Systems**	**UGCA1923**	1.Discuss the evaluation of operating systems
			2. Explain different resource managements performed by operating system.
			3. Describe the architecture in terms of functions performed by different types of operating systems.
			4. Analyze the performance of different algorithms used in design of operating system components.
27	**Software Engineering Laboratory**	**UGCA1924**	1.Elicit, analyze and specify software requirements.
			2. Analyze and translate a specification into a design
			3 Realize design practically, using an appropriate software engineering methodology.
			4. Plan a software engineering process life cycle.
			5.Use modern engineering tools for specification, design, implementation, and testing
28	**Database Management Systems Laboratory**	**UGCA1925**	1.Able to understand various queries and their execution
			2. Populate and query a database using SQL DML/DDL commands.
			3. Declare and enforce integrity constraints on a database
			4. Programming PL/SQL including stored procedures, stored functions, cursors, packages
			5. Able to design new database and modify existing ones for new applications and reason about the efficiency of the result

29	**Operating Systems Laboratory**	**UGCA1926**	1.Install & configure different operating systems
			2. Write programs/ scripts for different scheduling algorithms
30	**Web Designing**	**UGCA1927**	1.Understand the core concepts of Internet and Web Services.
			2. Describe and differentiate Programming Language and Markup Language.
			3. List various web pages and web sites together.
			4. Capture user input from the remote users.
			5. Learn connectivity concepts of Front End and Back End process.
31	**Web Designing Laboratory**	**UGCA1928**	1.Implement Static/Dynamic concepts of web designing.
			2. Develop ability to retrieve data from a database and present it in a web page.
			3. Design web pages that apply various dynamic effects on the web site.
32	**Programming in PHP**	**UGCA1929**	1.Learn the environment of Server Side Script.
			2. Compare and contrast between Client Side Script & Server Side Script.
			3. Learn the use of control structures and numerous native data types with their methods.
			4.Make Database connectivity between Front End and Back End
			5.Develop Dynamic Website that can interact with different kinds of Database Languages.
33	**Programming in PHP Laboratory**	**UGCA1930**	1.Solve simple to advanced online problems of Web Pages.
			2. Develop logics of various programming problems using numerous data types and control structures.
			3. Client Server concepts, Static & Dynamic environment of the websites etc.
			4. Design and implement the concept of Database connectivity.
			5. Front-End & Back-End concept of Database System.

34	**Programmi ng in Java**	**UGCA1932**	1.Familiarize with the concept of Object Oriented concepts by implementing Java Programming.
			2. Learn the concepts of classes & objects with the features of reusability and implementation of the same with various control structures to solve real world problems.
			3. Understand and design built-in and user defined functions/methods, interfaces and packages etc.
			4. Handle various types of data using arrays & strings and handling of exceptions occurred in programs.
			5. Utilize multithreading and applet features of Java for efficient and effective programming.
			6. Create and handle files in Java.
35	**Programming in Java Laboratory**	**UGCA1938**	1.Implement Core Java concepts.
			2. Solve computational problems using various operators of Java.
			3. Design solutions to complex by handling exceptions that may occur in the programs.
			4. Solve complex and large problems using the concept of multithreading.
			5. Implement interfaces and design packages.
36	**Computer Graphics**	**UGCA1934**	1.Let students understand basics of Computer Graphics, Input/output primitive and basic transformations, which can be applied on objects of graphics.
			2. To develop the logical and reasoning skills of the students.
			3. Learn graphical primitives and their algorithms
37	**Computer Graphics Laboratory**	**UGCA1940**	1. To equip students with techniques for developing structured computer program.
			2. Understand basics of computer graphics
			3. To develop the logical and reasoning skills of the students
			4.Practical applications of graphics, Program development and basic animations without using graphical software.
38	**Android Programming**	**UGCA1943**	1.Students will be able to do work on Android OS.
			2. Students will be able to create different type of Android based applications.

			3. Students will be able to discuss various security issues in Android platform.
			4. Students will be able to implement various database applications and content providers.
			5. Students will be able to differentiate among various types of operating systems.
39	**Android Programming Laboratory**	**UGCA1944**	1. Students will be able to do work on Android OS.
			2. Students will be able to create different type of Android based applications.
			3. Students will be able to discuss various security issues in Android platform.
			4. Students will be able to implement various database applications and content providers.
			5. Students will be able to design User Interface and develop activity for android app.
40	**Artificial Intelligence**	**UGCA1945**	1. Understand the significance and domains of Artificial Intelligence and knowledge representation.
			2. Examine the useful search techniques; learn their advantages, disadvantages and comparison.
			3. Understand important concepts like Expert Systems, AI applications.
			4. Be exposed to the role of AI in different areas like NLP, Pattern Recognition etc.
			5. Learn the practical applicability of intelligent systems, specifically its applications.
41	**Artificial Intelligence Laboratory**	**UGCA1951**	1. Developing simple applications using AI tools.
			2. Attain the capability to represent various real life problem domains using logic based techniques and use this to perform inference or planning.
			3. Formulate and solve problems with uncertain information using Bayesian approaches.
			4. Apply concept Natural Language processing to problems leading to understanding of cognitive computing.
42	**Information Security**	**UGCA1948**	1. Acquire a practical overview of the issues involved in the field of information security.
			2. Demonstrate a basic understanding of the practice of information security.
			3. To understand the information security risks across diverse settings including the Internet and WWW based commerce systems.
			4.Explore the idea that in Information Security answers are not always known, and proposed solutions could give rise to new, equally complex problems.

43	**Information Security Laboratory**	**UGCA1954**	1. Acquire a practical overview of the issues involved in the field of information security.
			2. Demonstrate a basic understanding of the practice of information security.
			3. Explore the idea that in Information Security answers are not always known, and proposed solutions could give rise to new, equally complex problems.
			4. Student will be able to develop the understating about information security