



Arka Educational & Cultural Trust (Regd.)

Jain Institute of Technology, Davangere

(A Unit of Jain group of Institutions, Bengaluru)

323, Near Veereshwara Punyashrama, Avaragere, Davangere- 577003.

Department of Information Science & Engineering

Course Name	Mathematics-I for CSE Stream	Semester	1
Course code	BMATS101	Scheme	2022

Course Outcomes

C101.1	Apply the knowledge of calculus to solve problems related to polar curves and learn the notion of partial differentiation to compute rate of change of multivariate functions
C101.2	Analyze the solution of linear and nonlinear ordinary differential equations
C101.3	Get acquainted and to apply modular arithmetic to computer algorithms
C101.4	Make use of matrix theory for solving the system of linear equations and compute eigen values and eigenvectors
C101.5	Familiarize with modern mathematical tools namely MATHEMATICA/MATLAB/PYTHON/ SCILAB



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Department of Information Science & Engineering

Course Name	Applied Physics for CSE stream	Semester	1
Course code	BPHYS102	Scheme	2022

Course Outcomes

C102.1	Describe the principles of LASERS and Optical fibers and their relevant applications.
C102.2	Discuss the basic principles of the Quantum Mechanics and its application in Quantum Computing.
C102.3	Summarize the essential properties of superconductors and its applications in qubits.
C102.4	Illustrate the application of physics in design and data analysis
C102.5	Practice working in groups to conduct experiments in physics and perform precise and honest measurements.



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Department of Information Science & Engineering

Course Name	Principles of Programming Using C	Semester	1
Course code	BPOPS103	Scheme	2022

Course Outcomes

C103.1	Elucidate the basic architecture and functionalities of a computer and also recognize the hardware parts. Apply programming constructs of C language to solve the real world problem.
C103.2	Explore the usage of conditional and looping statements in c languages. Explore user defined data structures like arrays in implementing solutions to problems like searching and sorting
C103.3	Design and Develop Solutions to problems using modular programming constructs using functions
C103.4	Explore user-defined data structures like structures, unions and pointers in implementing solutions



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Department of Information Science & Engineering

Course Name	Introduction to Electronics & Communication	Semester	1
Course code	BESCK104C	Scheme	2022

Course Outcomes

C104.1	Explain the operation of rectifiers, filters and regulators used in power supplies and also mention the types of amplifiers.
C104.2	Describe the operation of different Oscillators and operational amplifiers and amplifier parameters, characteristics, configurations, circuits.
C104.3	Explain the different number systems and there conversions and construct simple combinational logic circuits for SOP and POS forms.
C104.4	Explain the Embedded Systems and Sensors & Actuators.
C104.5	Describe the basic principle of operation of analog and digital communication systems.



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Department of Information Science & Engineering

Course Name	Introduction to Internet of Things	Semester	1
Course code	BETCK105H	Scheme	2022

Course Outcomes

C105.1	Describe the evolution of IoT, IoT networking components, and addressing strategies in IoT.
C105.2	Classify various sensing devices and actuator types.
C105.3	Demonstrate the processing in IoT.
C105.4	Explain Associated IOT Technologies.
C105.5	Illustrate architecture of IOT Applications



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Department of Information Science & Engineering

Course Name	Communicative English	Semester	1
Course code	BENGK106	Scheme	2022

Course Outcomes

C106.1	To know about Fundamentals of Communicative English and Communication Skills in general.
C106.2	To train to identify the nuances of phonetics, intonation and enhance pronunciation skills for better Communication skills.
C106.3	To impart basic English grammar and essentials of important language skills
C106.4	To enhance with English vocabulary and language proficiency for better communication skills.
C106.5	To learn about Techniques of Information Transfer through presentation.



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Department of Information Science & Engineering

Course Name	Samskrutika Kannada	Semester	1
Course code	BKSKK107	Scheme	2022

Course Outcomes

C107.1	ಕನ್ನಡ ಭಾಷೆ, ಸಾಹಿತ್ಯ ಮತ್ತು ಕನ್ನಡ ಸಂಸ್ಕೃತಿಯ ಕುರಿತು ಅರಿವು ಮೂಡಿರುತ್ತದೆ.
C107.2	ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಪ್ರಧಾನ ಭಾಗವಾದ ಆಧುನಿಕ ಪೂರ್ವ ಮತ್ತು ಆಧುನಿಕ ಕಾವ್ಯಗಳನ್ನು ಸಾಂಕೇತಿಕವಾಗಿ ಕಲಿತು ಹೆಚ್ಚಿನ ಓದಿಗೆ ಮತ್ತು ಜ್ಞಾನಕ್ಕೆ ಸ್ಪೂರ್ತಿ ಮೂಡುತ್ತದೆ.
C107.3	ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಸಾಹಿತ್ಯ ಮತ್ತು ಸಂಸ್ಕೃತಿಯ ಬಗ್ಗೆ ಅರಿವು ಮತ್ತು ಆಸಕ್ತಿ ಹೆಚ್ಚಾಗುತ್ತದೆ.
C107.4	ತಾಂತ್ರಿಕ ವ್ಯಕ್ತಿಗಳ ಪರಿಚಯ ಹಾಗೂ ಅವರುಗಳು ಸಾಧಿಸಿದ ವಿಷಯಗಳನ್ನು ತಿಳಿದುಕೊಂಡು ನಾಡಿನ ಇನ್ನಿತರ ವ್ಯಕ್ತಿಗಳ ಬಗ್ಗೆ ತಿಳಿದುಕೊಳ್ಳಲು ಕೌತುಕತೆ ಹೆಚ್ಚಾಗುತ್ತದೆ.



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Department of Information Science & Engineering

Course Name	Innovation and Design Thinking	Semester	1
Course code	BIDTK158	Scheme	2022

Course Outcomes

C108.1	Appreciate various design process procedure
C108.2	Generate and develop design ideas through different technique
C108.3	Identify the significance of reverse Engineering to Understand products
C108.4	Draw technical drawing for design ideas



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Department of Information Science & Engineering

Course Name	Mathematics-II for CSE Stream	Semester	2
Course code	BMATS201	Scheme	2022

Course Outcomes

C111.1	Apply the concept of change of order of integration and variables to evaluate multiple integrals and their usage in computing area and volume.
C111.2	Understand the applications of vector calculus refer to solenoidal, and irrotational vectors. Orthogonal curvilinear coordinates.
C111.3	Demonstrate the idea of Linear dependence and independence of sets in the vector space, and linear transformation
C111.4	Apply the knowledge of numerical methods in analysing the discrete data and solving the physical and engineering problems.
C111.5	Get familiarize with modern mathematical tools namely MATHEMATICA/ MATLAB /PYTHON/ SCILAB



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Course Name	Applied Chemistry for CSE Stream	Semester	2
Course code	BCHES202	Scheme	2022

Course Outcomes

C112.1	Identify the terms and applications processes involved in scientific and engineering
C112.2	Explain the phenomena of chemistry to describe the methods of engineering processes
C112.3	Solve the problems in chemistry that are pertinent in engineering applications
C112.4	Apply the basic concepts of chemistry to explain the chemical properties and processes
C112.5	Analyze properties and processes associated with chemical substances in multidisciplinary situations



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Department of Information Science & Engineering

Course Name	Computer-Aided Engineering Drawing	Semester	2
Course code	BCEDK203	Scheme	2022

Course Outcomes

C113.1	To understand the basic principles and conventions of engineering drawing
C113.2	To use drawing as a communication mode
C113.3	To generate pictorial views using CAD software
C113.4	To understand the development of surfaces
C113.5	To visualize engineering components



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Department of Information Science & Engineering

Course Name	Introduction to Civil Engineering	Semester	2
Course code	BESCK204A	Scheme	2022

Course Outcomes

C114.1	Understand various disciplines of Civil Engineering
C114.2	Understand the infrastructure requirement for sustainable development.
C114.3	Compute the resultant and equilibrium of force systems.
C114.4	Locate the centroid of plane and built-up sections
C114.5	Compute the moment of inertia of plane and built-up sections.



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Department of Information Science & Engineering

Course Name	Introduction to Python Programming	Semester	2
Course code	BPLCK205B	Scheme	2022

Course Outcomes

C115.1	Demonstrate proficiency in handling loops and creation of functions.
C115.2	Identify the methods to create and manipulate lists, tuples and dictionaries
C115.3	Develop programs for string processing and file organization
C115.4	Interpret the concepts of Object-Oriented Programming as used in Python.



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Department of Information Science & Engineering

Course Name	Professional Writing Skills in English	Semester	2
Course code	BPWSK206	Scheme	2022

Course Outcomes

C116.1	To understand and identify the Common Errors in Writing and Speaking.
C116.2	To Achieve better Technical writing and Presentation skills.
C116.3	To read Technical proposals properly and make them to Write good technical reports
C116.4	Acquire Employment and Workplace communication skills.
C116.5	To learn about Techniques of Information Transfer through presentation in different level



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Department of Information Science & Engineering

Course Name	Indian Constitution	Semester	2
Course code	BICOK207	Scheme	2022

Course Outcomes

C117.1	Analyse the basic structure of Indian Constitution.
C117.2	Remember their Fundamental Rights, DPSP's and Fundamental Duties (FD's) of our constitution.
C117.3	know about our Union Government, political structure & codes, procedures.
C117.4	Understand our State Executive & Elections system of India.
C117.5	Remember the Amendments and Emergency Provisions, other important provisions given by the constitution.



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Department of Information Science & Engineering

Course Name	Scientific Foundations of Health	Semester	2
Course code	BSFHK208	Scheme	2022

Course Outcomes

C118.1	To understand and analyze about Health and wellness (and its Beliefs) & It's balance for positive mindset.
C118.2	Develop the healthy lifestyles for good health for their better future.
C118.3	Build a Healthy and caring relationships to meet the requirements of good/social/positive life.
C118.4	To learn about Avoiding risks and harmful habits in their campus and outside the campus for their bright future.
C118.5	Prevent and fight against harmful diseases for good health through positive mindset.



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Department of Information Science & Engineering

Course Name	Mathematics for Computer Science	Semester	3
Course code	BCS301	Scheme	2022

Course Outcomes

C201.1	Explain the basic concepts of probability, random variables, probability distribution
C201.2	Apply suitable probability distribution models for the given scenario
C201.3	Apply the notion of a discrete-time Markov chain and n-step transition probabilities to solve the given problem
C201.4	Use statistical methodology and tools in the engineering problem-solving process.
C201.5	Compute the confidence intervals for the mean of the population.
C201.6	Apply the ANOVA test related to engineering problems.



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Department of Information Science & Engineering

Course Name	Digital Design & Computer Organization	Semester	3
Course code	BCS302	Scheme	2022

Course Outcomes

C202.1	Apply the K–Map techniques to simplify various Boolean expressions.
C202.2	Design different types of combinational and sequential circuits along with Verilog programs.
C202.3	Describe the fundamentals of machine instructions, addressing modes and Processor performance.
C202.4	Explain the approaches involved in achieving communication between processor and I/O devices.
C202.5	Analyze internal Organization of Memory and Impact of cache/Pipelining on Processor Performance.



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Department of Information Science & Engineering

Course Name	Operating Systems	Semester	3
Course code	BCS303	Scheme	2022

Course Outcomes

C203.1	Explain the structure and functionality of operating system
C203.2	Apply appropriate CPU scheduling algorithms for the given problem
C203.3	Analyse the various techniques for process synchronization and deadlock handling.
C203.4	Apply the various techniques for memory management
C203.5	Explain file and secondary storage management strategies
C203.6	Describe the need for information protection mechanisms



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Department of Information Science & Engineering

Course Name	Data Structures and Applications	Semester	3
Course code	BCS304	Scheme	2022

Course Outcomes

C204.1	Explain different data structures and their applications.
C204.2	Apply Arrays, Stacks and Queue data structures to solve the given problems.
C204.3	Use the concept of linked list in problem solving.
C204.4	Develop solutions using trees and graphs to model the real-world problem.
C204.5	Explain the advanced Data Structures concepts such as Hashing Techniques and Optimal Binary Search Trees.



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Department of Information Science & Engineering

Course Name	Data Structures Lab	Semester	3
Course code	BCSL305	Scheme	2022

Course Outcomes

C205.1	Analyze various linear and non-linear data structures
C205.2	Demonstrate the working nature of different types of data structures and their applications
C205.3	Use appropriate searching and sorting algorithms for the given scenario.
C205.4	Apply the appropriate data structure for solving real world problems



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Department of Information Science & Engineering

Course Name	Object Oriented Programming with Java	Semester	3
Course code	BCS306A	Scheme	2022

Course Outcomes

C206.1	Understand the basics of object-oriented programming using Java and design a class involving data members and methods for the given scenario.
C206.2	Apply the concepts of inheritance, interfaces, packages and exception handling in solving real world complex problems.
C206.3	Apply concepts of multithreading, autoboxing and enumerations in program development.



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Department of Information Science & Engineering

Course Name	Social Connect and Responsibility	Semester	3
Course code	BSCK307	Scheme	2022

Course Outcomes

C207.1	Know the importance Plantation and adoption of a tree
C207.2	To know the history , culture of the city and crafts corner by Heritage walk
C207.3	To understand the benefits of Organic farming and implementation of waste management
C207.4	Explore ways of Water Conservation
C207.5	Explore City's culinary practices by food walk
C207.6	Communication



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Department of Information Science & Engineering

Course Name	Data Visualization with Phyton	Semester	3
Course code	BCS358D	Scheme	2022

Course Outcomes

C20S.1	Demonstrate the use of IDLE or PyCharm IDE to create Python Applications
C20S.2	Use Python programming constructs to develop programs for solving real-world problems
C20S.3	Use Matplotlib for drawing different Plots
C20S.4	Demonstrate working with Seaborn, Bokeh for visualization
C20S.5	Use Plotly for drawing Time Series and Maps



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Department of Information Science & Engineering

Course Name	Analysis & Design of Algorithms	Semester	4
Course code	BCS401	Scheme	2022

Course Outcomes

C211.1	Apply asymptotic notations and analyze the time complexity of algorithms, demonstrate brute force approach, to solve computational problems.
C211.2	Demonstrate divide & conquer, greedy and dynamic approaches to solve computational problems.
C211.3	Illustrate backtracking, branch & bound and approximation methods, also analysis of P, NP and NP Complete class problems



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Department of Information Science & Engineering

Course Name	Advanced Java	Semester	4
Course code	BIS402	Scheme	2022

Course Outcomes

C212.1	Apply appropriate collection class/interface to solve the given problem.
C212.2	Demonstrate the concepts of String operations in Java
C212.3	Apply the concepts of Swings to build Java applications.
C212.4	Develop web based applications using Java servlets and JSP.
C212.5	Use JDBC to build database applications



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Department of Information Science & Engineering

Course Name	Database Management Systems	Semester	4
Course code	BCS403	Scheme	2022

Course Outcomes

C213.1	Describe the basic elements of a relational database management system
C213.2	Design entity relationship for the given scenario
C213.3	Apply various Structured Query Language (SQL) statements for database manipulation
C213.4	Analyse various normalization forms for the given application
C213.5	Develop database applications for the given real world problem.
C213.6	Understand the concepts related to NoSQL databases



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Course Name	Analysis & Design of Algorithms Lab	Semester	4
Course code	BCSL404	Scheme	2022

Course Outcomes

C214.1	Develop programs to solve computational problems using suitable algorithm design strategy
C214.2	Compare algorithm design strategies by developing equivalent programs and observing running times for analysis
C214.3	Choose appropriate algorithm design techniques to develop solution to the computational and complex problems
C214.4	Demonstrate and present the development of program, its execution and running time(s) and record the results/inferences.



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Course Name	Biology for Computer Engineers	Semester	4
Course code	BBOC407	Scheme	2022

Course Outcomes

C217.1	Elucidate the basic biological concepts via relevant industrial applications and case studies.
C217.2	Evaluate the principles of design and development, for exploring novel bioengineering projects.
C217.3	Corroborate the concepts of biomimetics for specific requirements.
C217.4	Think critically towards exploring innovative biobased solutions for socially relevant problems.



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Course Name	Universal Human Values course	Semester	4
Course code	BUHK408	Scheme	2022

Course Outcomes

C218.1	Responsible Problem Handling: Students become more responsible in life and in handling problems with sustainable solutions, considering human relationships and human nature.
C218.2	Critical Ability: Students develop better critical thinking skills.
C218.3	Commitment to Values: Students become sensitive to their commitment towards human values, relationships, and society
C218.4	Practical Application: Students apply what they have learned to their own lives in various day-to-day settings, making a start in this direction.



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Course Name	Graph Theory	Semester	4
Course code	BCS405B	Scheme	2022

Course Outcomes

C21B.1	Explain the fundamental concepts of properties and representation of graphs.
C21B.2	Solve the problems involving characterization and operations on graphs.
C21B.3	Apply concepts of trees and graph connectivity to solve real world problems.
C21B.4	Apply the concepts of planar graph and graph representations to solve the given problem.
C21B.5	Use the concepts of matching and coloring of graphs to solve the real world problems.



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Course Name	Technical writing using LATEX	Semester	4
Course code	BCSL456D	Scheme	2022

Course Outcomes

C21D.1	Apply basic LaTeX command to develop simple document
C21D.2	Develop LaTeX script to present the tables and figures in the document
C21D.3	Illustrate LaTeX script to present theorems and mathematical equations in the document
C21D.4	Develop programs to generate the complete report with citations and a bibliography
C21D.5	Illustrate the use of Tikz and algorithm libraries to design graphics and algorithms in the document.