Kristu Jayanti College
AUTONOMOUS Bengaluru
Reaccredited 'A++' Grade by NAAC | Affiliated to Bengaluru North University

FACULTY OF SCIENCE

Programme Matrix: Bachelor of Science – Statistics, Computer Science [2023 Batch]

Programme Outcomes

After successful completion of Bachelor of Science – Statistics, Computer Science programme, a student will be able to:

PO1: integrate scientific temper; spirit of enquiry, humanism and reform

PO2: apply scientific knowledge and skills ethically for societal development and entrepreneurship

PO3: design and execute ethical research in the field of Statistics and (or) Computer Science

PO4: acquire coherent understanding of the academic field of Statistics and its different learning areas and applications.

PO5: plan and execute Statistical experiments or investigations, analyse and interpret data/information collected using appropriate methods, including the use of appropriate statistical software and report accurately the findings of the experiment/investigations.

PO6: perform experiments in Computer Science involving programming concepts and visualisation techniques

PO7: appraise programming skills by implementing the structure and development methodologies of software systems

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I Semester			
Course Type	**Course Code**	**Course Title**	**Course Outcomes**
DSC	21STS2T411	Descriptive Statistics	1. Acquire knowledge of introductory statistics, its scope and importance in various areas such as Medical, Engineering, Agricultural and Social Sciences etc 2. Categorize various types of data and their organization, formulate evaluation of summary measures such as measures of central tendency and dispersion etc 3. Perceive the knowledge of correlation, regression analysis, regression diagnostics, partial and multiple correlations 4. Identify different types of data reflecting independence and association between two or more attributes.
DSC	21STS2L211	Descriptive Statistics Practical	1. Use graphical techniques to interpret and compute various measures of central tendency 2. Calculate various measures of dispersion, skewness and kurtosis 3. Develop the linear relationship between the two variables by using scatter plots and other correlation methods and also fitting of curves 4. Solve multivariate descriptive statistics, mean vector, dispersion matrix, independence and association between two or more attributes.
DSC	21CSC2T411	Programming in C	1. Understand the basic programming concepts to provide solutions for computational problems 2. Implement programs using the concepts of operators, selection and iterative constructs 3. Construct modular programs using arrays and strings 4. Develop solutions for real world problems with derived data types 5. Illustrate the usage of preprocessor directives and perform input/output operations on files.
DSC	21CSC2L211	Programming in C Practical	1. Develop C programs using sequential, conditional and iterative constructs 2. Design programs using user defined and derived data types, string operations and functions in C language 3. Apply structures, files and pointers in C Program.
AECC	22ENG1T312	Musings in English Literature	1. Articulate the relevant issues of society through the imbibed knowledge of prose 2. Identify and appreciate nuances of poetry 3. Implement the basic concepts of grammar and its usage.

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AECC	21KAN1T312	Saahithya Sangama I	• ಸಾಹಿತ್ಯದಲ್ಲಿ ಅಡಗಿರುವ ವಿವಿಧ ಸಾಮಾಜಿಕ ಮೌಲ್ಯ ಮತ್ತು ಜವಾಬ್ದಾರಿಗಳನ್ನು ಅರಿಯುವರು. • ಭಾಷಾ ಕೌಶಲವನ್ನು ಅಭಿವೃದ್ಧಿ ಪಡಿಸಿಕೊಳ್ಳುವರು. • ವಿದ್ಯಾರ್ಥಿಗಳು ತಮ್ಮ ಜೀವನದ ಸೃಜನಶೀಲತೆಯ ಮಹತ್ವವನ್ನು ಚರ್ಚಿಸುವರು. • ಹದಿಹರೆಯ ವಯಸ್ಸಿನ ಸಮಸ್ಯೆಗಳು ಹಾಗೂ ಪರಿಹಾರಗಳನ್ನು ವಿಶ್ಲೇಷಿಸುವರು. • ಜೀವನದಲ್ಲಿ ಮಾನವ ಪಡೆಯಬೇಕಾದ ಯಶಸ್ಸಿನ ಹಾದಿಯನ್ನು ವಿವರಿಸುವರು.
AECC	21HIN1T312	Hindi Kahani aur Prayajanmulak Hindi	1: हिन्दी कहानी विधा का ज्ञान ग्रहण करने की क्षमता का विकास। 2: विद्यार्थियों में सामाजिक यथार्थ और मुल्यांकन करने का विकास। 3: विद्यार्थियों में कहानी विधा का वर्णन करने की क्षमता का विकास। 4: विद्यार्थियों में कहानी का विश्लेषण और भाषा कौशल में प्रवीणता।
AECC	22AEN1T311	Listening and Comprehension in English	4. Identify the barriers to listening and describe the key components that contribute to effective listening 5. Use their grammatical knowledge to refine their speech and writing 6. Analyse complex human situations and challenges that emerge from the prescribed texts

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II Semester			
Course Type	**Course Code**	**Course Title**	**Course Outcomes**
DSC	21STS2T421	Probability and Distributions	1. Perceive the concept of basic probability and its terminologies. Simultaneously, learn the concept of conditional probability including the concept of Bayes' theorem 2. Understand the calculation concept of univariate and bivariate random variables 3. Identify the characteristics of discrete distributions- binomial, Poisson, negative binomial, geometric, hyper geometric and continuous distribution- normal 4. Apply simulation techniques to generate random samples for uniform, Poisson Binomial and normal distributions and descriptive statistics problems are solved using R programming.
DSC	21STS2L221	Probability and Distributions Practical	1. Find the probabilities of events, additional, multiplication, conditional and Bayes theorems 2. Analyze data pertaining to discrete and continuous variables and to interpret the results 3. Obtain a discrete and continuous probability distribution in the given situation. 4. Simulate random samples using simulation techniques for uniform, Poisson, binomial and normal distributions and descriptive statistics problems are solved using R.
DSC	21CSC2T421	Data Structures	1. Understand dynamic memory management, recursive functions and data structures. 2. Identify suitable sorting and searching algorithms for data structure applications 3. Implement operations on linear data structures. 4. Summarize the linked list concepts, operations and its application 5. Construct tree data structure and perform its operations
DSC	21CSC2L221	Data Structures Practical	1. Implements solution to problems using iteration and recursion 2. Develop programs for linear data structures and its operations 3. Design programs for non-linear data structures and its operations
AECC	22ENG1T322	Glimpses: Readings from English Literature	1. Identify the themes and relevant issues through the study of prose and poetry 2. Develop the skill to identify the pertinent themes and characters in the novel 3. Implement new approaches in speaking and writing skills.
AECC	21KAN1T322	Saahithya Sangama II	1: ಸಾಹಿತ್ಯದಲ್ಲಿ ವ್ಯಕ್ತವಾಗಿರುವ ಮಾನವೀಯ ಮೌಲ್ಯಗಳನ್ನು ಅರಿಯುವರು 2: ಸಾಹಿತ್ಯದಲ್ಲಿ ಅಡಗಿರುವ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳನ್ನು ಅರಿಯುವರು. 3: ಯುದ್ಧದಿಂದಾಗುವ ಅನಾಹುತಗಳನ್ನು ಅರಿಯುವರು. 4: ಮಾನ್ಯವಿಲ್ಲದ ಜಾತಿ ಬೇಧಭಾವಗಳ ಬಗ್ಗೆ ಅರಿಯುವರು. 5: ಜೀವನ ಕೌಶಲವನ್ನು ಅಭಿವೃದ್ಧಿ ಪಡಿಸಿಕೊಳ್ಳುವರು.
AECC	21HIN1T322	Hindi Kavitha aur Anuvaad Koushal	1: हिन्दी कविता का विश्लेषण एवं समझने की योग्यता का विकास। 2: विद्यार्थियों में सामाजिक यथार्थ और मूल्यांकन करने का विकास। 3: कविता में वर्णित कथा का वर्णन एवं काव्य सृजन करने का विकास। 4: अनुवाद एवं भाषा कौशल में प्राविण्यता।

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AECC	22AEN1T321	Conversation Practice in English	4. Acquaint students with listening skills and grammar. 5. Enable students to analyse the prescribed texts based on relevant themes. 6. Introduce students to varied genres of writing in English.
AECC	21EVS1T321	Environmental Studies	4. Understand the concept of Environment and ecosystems 5. Gain knowledge on various components controlling the stability of ecosystem 6. Understand the Policies and laws pertaining to the welfare of life forms.

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