



ST XAVIER'S COLLEGE – JAIPUR

Affiliated to the University of Rajasthan
Approved under Section 2(f) & 12(B) of the UGC Act, 1956
Nevta - Mahapura Road, Jaipur - 302029, Rajasthan, India



Ref : SXC/ACAD/DoCS/2022/0019

15/09/2022

NOTICE

Department of Computer Science

This is to inform that the Department of Computer Science is conducting a Bridge course on Basics Maths for BCA first year. The course will be conducted offline during your class Hours.

- Duration: 16-09-2022 onwards for 15 days
- Timing: 9.45 a.m. to 11.25 a.m. (16-09-22 to 20-09-22)
: 8:55 am to 11.25 a.m. (21-09-22 to 02-10-22)
- Resource Persons: Ms. Ritu Sisodia and Dr Arpita Banerjee)

For further enquiry contact: Ms. Ritu Sisodia and Dr Arpita Banerjee

Bridge course details given below: -

BCA is a professional course that welcomes students from all streams. Therefore, the department offers a bridge course of Basic Mathematics for the non-mathematics-based students so that they can explore the knowledge and be at par with the mathematics based-students. The bridge course is generally conducted before the beginning of the regular classes. This helps the non-mathematics-based students to have a clear understanding of the basic and fundamental concepts of mathematics. The bridge course also helps the students in learning the IT-based concepts which are building blocks of mathematics. This concept building is needed for the efficient learning of subjects like Discrete mathematics in BCA.

Syllabus

I. Basics of Functions & Relations (3 hours)

Fundamentals of functions, function types, logarithmic, exponential, greatest integer function with their graph composite functions, function domain and range, binary operations, Types of relations – Reflexive, Symmetric, transitive and equivalence relations

II. Matrices and Determinant (3 hours)

Definitions, types of matrices, scalar matrices, determinant of square matrices, linear equations, Cramer Rule, Eigen Rules, Eigen Vector.

III. Numerical Methods (3 hours)

Floating point numbers, quadratic equations, the concept of zero difference, Shridharacharya's formula method.

IV. Frequency Distribution (3 hours)

Definition and interpretation of mean, mode, median, dispersion, standard deviation, correlation, regression, Karl Pearson formula

V. Probability (3 hours)

Definition and interpretation Permutation, Combination, factorial, probability, multiplicative law of probability, classical and mathematical definition of probability



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Course Outcomes

- CO 1. Develop a level of confidence among non-math students
- CO2. Help the non-math students to clear their doubts regarding math's
- CO3. Help the students to revise the basic concepts.
- CO4. Create a strong foundation to apply the concept of Math's
- CO5. Removes the fear of students from a non-math background
- CO 6. Help the students to analyze the relation between Mathematics and Computer Science
- CO 7. Develop logical thinking

HEAD

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Copy forwarded to the following for information and necessary action.

1. Principal, St Xavier's College, Jaipur
2. Vice-Principal Office, St Xavier's College, Jaipur
3. Department Staff, St Xavier's College, Jaipur
4. Website Coordinator, St Xavier's College, Jaipur