

VIVEKANAND COLLEGE, KOLHAPUR (Empowered AUTONOMOUS)

DEPARTMENT OF MATHEMATICS

Value Added Course (2023-24)

Syllabus

Mathematics for Data Science

Course Outcomes: After studying this course Student will able to

CO1: Familiarize basic concept of set theory

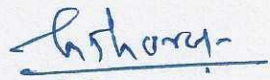
CO2: Learn conceptual variations while advancing from one variable to several variables in calculus.

CO3: Learn basic concepts of linear transformation, dimension theorem, matrix representation of a linear transformation, and the change of coordinate matrix

CO4: Built computational programme by using graph theory

Unit	Content:	Hours allotted
1.	SET THEORY: 1.1. Natural numbers and Integers 1.2. Rational Numbers 1.3. Real Numbers 1.4. Sets 1.5. Relations 1.6 Functions 1.7 Inverse functions	06
2.	Vector Spaces: 2.1 Introduction to vector spaces 2.2 Some properties of vector spaces 2.3 Linear dependence and Linear independence. 2.4 Basis and dimension	06
3.	Linear transformation: 3.1 Linear transformation 3.2 Kernel and Images 3.3 The null space of a matrix 3.4 ordered bases and matrices	06
4.	Multivariable functions: 4.1 Partial derivatives 4.2 Limit 4.3 continuity 4.4 directional derivatives	06
5.	Graph Theory: 5.1 Graphs 5.2 Types of graphs 5.3 Degree of a vertex in an undirected graph 5.4 Indegrees and Outdegrees of a directed graph 5.5 Path and Cycle 5.6 Directed acyclic 5.7 Graph coloring	06




HEAD
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VIVEKANAND COLLEGE, KOLHAPUR
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Shri. Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Mathematics

Crash Course on **Mathematics for Data Science**



30 hours beginner



State of the Art
Laboratory



Highly Qualified and
Experienced Staff

Career Prospects

Data Scientist | Data Analyst | Data Engineer | IoT Developer |
Software Developer | Software Engineer |
Machine Learning Engineer | Assistant Professor

Assistance will be provided for placements in



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For admissions Contact 9421212977 | 940418405

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Notice

All the Final year students of B.Sc./ B.C.A./B.C.S are informed that Department of Mathematics has introduced value added course entitled "Mathematics for Data Science" for the academic year 2023-24. This is the foundation course of Data Science and useful for students who want to pursue career in Data science. So interested students Contact to the department of mathematics before 20/10/2023.

Co-ordinator: Ms. S. M. Malavi

Contact : 9324368036

hithorat
(Prof. S. P. Thorat)
HEAD
Department of Mathematics
Vivekanand College, Kolhapur

Pan
(Prin. Dr. R.R. Kumbhar)
PRINCIPAL
Vivekanand College
Kolhapur

- B.Sc. III
- 1) Maths. → hithorat
- 2) statistics →
- 3) Electronics - zopa
- 4) Botany - Jangal
- 5) zary - ghl
- 6) Comp sci - lg
- 7) B.Sc. III Chemistry g
- 8) B.Sc. III English g
- B.C.A. usyam
- B.Sc. Som. Sci (Entire)
- B.Sc. III statistics Abhesel