

**VIVEKANAND EDUCATION SOCIETY'S COLLEGE OF ARTS,
SCIENCE, AND COMMERCE (AUTONOMOUS)**

SINDHI SOCIETY, CHEMBUR, MUMBAI

**F.Y.Bsc Data Science and Data Analytics NEP-2020 Course Structure for
Academic Year 2023-24**

Semester-I	
Major (Core) Subjects (Compulsory)	<ol style="list-style-type: none"> 1. Programming using Python 2. Operating System and Networking 3. Practical of (Programming using Python + Operating System and Networking)
Vocational Skill Course (VSC) & Skill Enhancement Courses (SEC)	<ol style="list-style-type: none"> 1. Statistics in Data Science 2. R Programming – I (Practical)
Open/ General Electives (OE/ GE)	<ol style="list-style-type: none"> 1. Financial Literacy 2. E - commerce and Digital Marketing – I
Minor Subjects	---
Ability Enhancement Courses (AEC) , Indian Knowledge System (IKS) and Value Education Courses (VEC)	<ol style="list-style-type: none"> 1. Business Communication – I (AEC) 2. Indian Constitution (VEC) 3. Vedic Mathematics (IKS)
Field Project (FP) / Apprenticeship or Internship (OJT) / Community Engagement & Services (CES) / Co- curricular Courses (CC)	<p style="text-align: center; color: red;">(60 Hours work)</p> <ol style="list-style-type: none"> 1. Department Association /NSS 2. Activities / Field Visits / 3. Industrial Visits

Baskets (Semester-I)

VSC/ SEC	GE / OE	IKS
1. Statistics in Data Science	Financial Literacy	Vedic Mathematics (IKS)
. R Programming – I (Practical)	E - commerce and Digital Marketing	

F.Y.Bsc Data Science and Data Analytics NEP-2020 Course Structure for

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Semester-II	
Major (Core) Subjects (Compulsory)	1.Application Development using Python 2.DBMS 3.Practical of (Application Development using Python + DBMS)
Vocational Skill Course (VSC) & Skill Enhancement Courses (SEC)	1. Statistics in Data Science – II 2. R Programming – II
Open/ General Electives (OE/ GE)	1.Financial Literacy – II 2. Business Strategies
Minor Subjects	Open-Source Technologies
Ability Enhancement Courses (AEC) , Indian Knowledge System (IKS) and Value Education Courses (VEC)	1. Business Communication - II (AEC) 2.. Environmental Science (Green Technology and E-waste Management) (VEC)
Field Project (FP) / Apprenticeship or Internship (OJT) / Community Engagement & Services (CES) / Co-curricular Courses (CC)	(60 Hours work) 1.Department Association /NSS 2.Activities / Field Visits / 3.Industrial Visits

Baskets (Semester-II)

SEC	OE	Minor
1. Statistics in Data Science – II	1.Financial Literacy – II	Open-Source Technologies
2. R Programming – II	2.Business Strategies	