



Hindi Vidya Prachar Samiti's

Ramniranjan Jhunjhunwala College

of Arts, Science & Commerce

(Empowered Autonomous College)

Affiliated to

UNIVERSITY OF MUMBAI

Syllabus of Statistics OJT for the T. Y. B.Sc. Semester VI (under NEP)

Program: B.Sc. STATISTICS

Program Code: **RJSUSTA**

(REVISED in 2025-2026 in alignment with the NEP2020 facilitating the inter-and multidisciplinary learning and multiple entry and exit of the students)

(CBCS 2025-2026)

Preamble

The National Education Policy 2020 aims at imparting skill-based learning and caters to the multiple entry and exit facility for the students thus empowering them to acquire knowledge at their pace. In the three-year UG program, the student has two exit options. Students also have the option of choosing the Honors program of four years study in a given discipline and later converting it to a five-year integrated PG degree program. As an undergraduate student, he/she learns the core subject (Major), subject complementing the core subject (Minor), a course from another discipline (OEC or GEC), Vocational and Skill Enhancement course from the Major (VSEC). The remaining verticals under NEP 2020 are IKS (Indian Knowledge System), AEC (Ability Enhancement Course), VEC (Value Enhancement Course) and with progressive three years of UG, student also completes at different levels OJT (On Job Training), FP (Field Projects), CEP (Community Engagement Program), RP (Research Project) which helps him/her in understanding their roots, application of the knowledge for the benefit of self and the society. Vertical CC (Co-curricular activities and activities related to yoga and human well-being) helps in preparing youth with good character and interpersonal relationships.

T.Y.B.Sc. Statistics Major Syllabus Semester VI

**Credit Structure for B Sc Semester VI as per NEP 2020 Implemented
from the academic year 2025-2026**

Course Code: RJOJTSTA

Semester VI

Level 5.5 Major Statistics

Courses	Credits	Total Credits	Course Code
Discipline Specific Core -I Distribution Theory and Stochastic Processes	4	12	RJDSCSTA361
Discipline Specific Core -II Testing of Hypothesis	4		RJDSCSTA362
Discipline Specific Core -III Practical on DSC-I and DSC-II	4		Practicals related to DSC I and II RJDSCSTAP361
Discipline Specific Elective- I Elements of Actuarial Science	4	4	RJDSESTA361
Discipline Specific Elective- II Introduction to Six Sigma			RJDSESTA362
Vocational Skill Course (VSC) Foundations of Python Programming	2	2	RJVSCSTAP361
On Job Training (OJT)	4	4	RJOJTSTA361
Total Credits	22	22	

***As per University Grid**

T.Y.B.Sc. Statistics Major Syllabus Semester VI**T.Y.B..Sc. Semester VI Statistics Syllabus**

Course Code	Unit	Topic Headings	Credits	Duration
RJDSCSTA361	Paper Title : Distribution Theory and Stochastic Processes			(60 hours)
	I	Bivariate Normal Distribution	4	
	II	Generating Functions		
	III	Stochastic Processes		
	IV	Queueing Theory		

Course Code	Unit	Topic Headings	Credits	Duration
RJDSCSTA362	Paper Title : Theory of Estimation			(60 Hours)
	I	Most Powerful Tests	4	
	II	Uniformly Most Powerful & Likelihood Ratio Tests		
	III	Sequential Probability Ratio Tests		
	IV	Non-Parametric Tests		

Course Code	Unit	Topic Headings	Credits	Duration
RJDSCSTAP361	Practical Title : Statistics Practical			(60 hours)
			4	

Elective Course 1

Course Code	Unit	Topic Headings	Credits	Duration
RJDSESTA361	Paper Title : Elements Actuarial Science			(60 hours)
	I	Mortality Tables	4	
	II	Compound Interest And Annuities Certain		
	III	Life Annuities		
	IV	Assurance Benefits		

Elective Course 2

Course Code	Unit	Topic Headings	Credits	Duration
RJDSESTA362	Paper Title : Introduction to Six Sigma			(60 hours)
	I	Introduction to Basic Statistics	4	
	II	Six Sigma		
	III	Control Charts -I		
	IV	Control Charts -II		

T.Y.B.Sc. Statistics Major Syllabus Semester VI

Course Code	Unit	Topic Headings	Credits	Duration
RJVSCSTAP361	Paper Title : Foundations of Python Programing			(60 hours)
	I	Introduction to Python Programming	2	
	II	Numpy, Pandas and Data Exploration		

Course Code	Unit	Topic Headings	Credits	Duration
RJOJTSTA361	Paper Title : On Job Training (OJT)			(120 hours)
			4	

Course code	Topic Headings	Credits
RJOJTSTA361	On Job Training (OJT)	4

OJT will be done in School/ educational institution/NGO involved in Statistical related activities / Industry/ government sector

Minimum duration - **120 hours**

Total marks for OJT- 100

Submission of Report

Course Code: RJOJTSTA361

CREDITS: 4 MARKS 100

Name of the student: _____

Title of Job : _____

Department of Statistics

Course Code: **RJOJTSTA361**

UID No. _____

Roll No: _____

Place one tick in each appropriate row. Overall mark should reflect t

he position of ticks in the individual rows. In boxes that have more than one set of marks, cancel out the marks that are not applicable and circle the correct marks.

Assessment Grid:

Project Work and report (parameters)	Marks	80-100% Excellent	60-80% Good	40-60% Satisfactory	20-40% Average
Project work	20	20/19	18/17	16/15	14/13
Report writing and Bibliography	20	20/19	18/17	16/15	14/13
Project presentation and Conclusion sharing	10	10/9	8/7	6/5	4/3

Marks: _____/100

Name and Signature of the Faculty: _____

Date: _____

T.Y.B.Sc. Statistics Major Syllabus Semester VI**Mapping of the course to Local/ Regional/National/International relevance**

Class	Course Name	Course Code	Local relevance	Regional relevance	National relevance	International relevance
T Y B Sc Statistics Major	OJT	RJOJTSTA361	It helps businesses and governments make data-driven decisions, boosts local employment by enhancing statistical skills.	It helps local industries adapt to regional trends, improves workforce skills, and supports data-driven decision-making in sectors like agriculture, healthcare, and manufacturing .	It helps build a skilled workforce capable of addressing national challenges like healthcare, education, and infrastructure, while supporting innovation, research, and sustainable development.	It enables professionals to apply statistical methods to global challenges, such as healthcare and market trends, while promoting cross-cultural collaboration and knowledge exchange

Mapping of the course to Employability/ Entrepreneurship/Skill development

Class	Course Name	Course Code	Topic focusing on Employability/ Entrepreneurship/ skill development	Employability/Entrepreneurship/Skill development	Specific activity
T Y B Sc Statistics Major	OJT	RJOJTSTA361	Campus to corporate training, soft skills, team work	Organizational skills, teamwork, event management	On Job training in various sectors

Integration of Cross cutting Issues

Class	Course Code	Cross Cutting Issues
T Y BSc Statistics	RJOJTSTA361	Professional Ethics, Economic Growth UNSDG 4, 8,10,17 NEP2020 Interdisciplinary/Multidisciplinary

