Rajarshi Shahu Mahavidyalaya, Latur

(Autonomous)

Structured Work Plan for Teaching

(Dec – 2018 to March . 2019)

1. **Details of Classes to be taught**

Sr. No.	Class	Name of Assist. Prof.	Subject	Paper
1	B.Sc.-III	Dr. S.B.Birajdar	Mathematics	Theory of Probability and Distribution
2	M.Sc.-I			Measure Theory
3	M.Sc.-II			Numerical Analysis(A)
4	B.Sc-II			Practical

2. **Summary of Lesson Plan**

Name of Teacher: Dr. S.B.Birajdar

Class : B.Sc.-III (Sixth Semester)

Sr. No.	Subject	Unit and Chapter to be covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
1	Mathematics (U-MAT-646 Theory of Probability and Distribution)	**Unit I : Basics of Probability** Basic Definitions, Mathematical and statistical probability, Axiomatic approach to probability, Theorems on probability, Conditional probability with examples, Extended axiom of addition and continuity, Baye's theorem.	29 Nov 18 to 22 Dec 18	1 1 2 3 1 2 2	Definition writing Proof Writing Tutorial classes Quiz Contest Surprise Test Classroom Seminar	Problem solving Assignment –I

		Unit II : Random Variables				
		Random variables, Types - discrete		1		
		random variable, Continuous random		2		Unit Test-II
		variable, probability distribution		2		
		function, probability density function,	27 Dec 18	2		
		Mathematical expectation, Properties	to	2		
		of expectation and Variance, Moment		2		
		generating function, Cumulant	02 Feb 19	2		
		generating function, Probability		2		
		generating function, and its properties		2		
		Unit III: Some Discrete and Continuous Distributions				
		Discrete Probability distributions:		1		
		Binomial distribution, Poisson		1		
		distribution, Discrete Uniform		2		
		distribution, Hypergeometric	07 feb 19	2		
		distribution; its Mean and Variance;	to	2		
		MGF and CGF of distributions, Fitting	23 march	2		
		of distributions and its applications.	19	2		

		Continuous Probability distributions: Normal distribution, Exponential distribution, its properties, Moments and applicatins.		2 2 2 2		

Sign of Staff
Dr.S.B.Birajdar

Head

Principal

Rajarshi Shahu Mahavidyalaya, Latur

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Structured Work Plan for Teaching

(Dec – 2018 to March . 2019)

1. **Details of Classes to be taught**

Sr. No.	Class	Name of Asstt. Prof.	Subject	Paper
1	B.Sc.-III	Dr. S.B.Birajdar	Mathematics	Theory of Probability and Distribution
2	M.Sc.-I			Measure & Integration Theory
3	M.Sc.-II			Numerical Analysis(A)
4	B.Sc-II			Practical

2. **Summary of Lesson Plan**

Name of Teacher: Dr. S.B.Birajdar

Class : M.Sc.-I (second semester)

Sr. No.	Subject	Unit and Chapter to be covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
1	Mathematics (P-MIT-265 Measure & Integration Theory)	**Unit I :** Lebesgue outer measure, Measurable sets, Measurable functions, Borel and Lebesgue measurability, Integration of non-negative functions, The general integral, Integration of series, Riemann and Lebesgue Integrals, The four derivatives, Continuous non-differentiable functions, Functions of	29 Nov 18 to 14 Dec 18	1 1 2 3 1 2 2	Definition writing Proof Writing Tutorial classes Quiz Contest Surprise Test Classroom Seminar	Problem solving Assignment –I

		bounded variations, Differentiation and integration.				
		Unit II : Abstract measure spaces: Measure and outer measure, Extension of measure, Uniqueness of the extension, Completion of measure, Measure spaces, Integration with respect to measure.	15 Dec 18 to 01 Jan 19	2 2 2 3 3 3		Unit Test-II
		Unit III: Signed measure and their derivatives: Signed measure and the Hahn-Decomposition the Jordan decomposition the Raydon–Nikodym theorem (Statement only).	02 Jan19 to 25 Jan 19	4 4 4 4 3		

		Unit-IV:				
		Measure and integration in a product spaces: Measurability in a product spaces	28 Jan 18 To 28 Feb 18	3 4 2 2		
		The product measure and Fubini's theorem		2 3		
		Lebesgue measure in Euclidean space.		2		

Birajdar
sign of staff
Dr. S.B. Birajdar

Head

Principal

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Structured Work Plan for Teaching

(Dec – 2018 to March . 2019)

1. **Details of Classes to be taught**

Sr. No.	Class	Name of Asstt. Prof.	Subject	Paper
1	B.Sc.-III	Dr. S.B.Birajdar	Mathematics	Theory of Probability and Distribution
2	M.Sc.-I			Measure & Integration Theory
3	M.Sc.-II			Numerical Analysis(A)
4	B.Sc-II			Practical

2. **Summary of Lesson Plan**

Name of Teacher: Dr. S.B.Birajdar **Class : M.Sc.-II (fourth semester)**

Sr. No.	Subject	Unit and Chapter to be covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
1	Mathematics Course code: P-NUA-468 Numerical Analysis(A))	**Unit I :** Iterative solutions of nonlinear equation: bisection method. Fixed-point interation, Newton's method, secant method, accelertion of convergence, Newton's method for two non linear equations, polynomial equation methods.	29 Nov 18 to 15 Dec 18	1 1 2 2 2 2 2	Definition writing Proof Writing Tutorial classes Quiz Contest Surprise Test Classroom Seminar	Problem solving Assignment –I

		Unit II : Polynomial interpolation: interpolation polynomial, divided difference interpolation, Aitken's formula, finite difference formulas, Hermite's interpolation, double interpolation.	17 Dec18 to 05 Jan 19	1 2 2 2 2 3		
		Unit III: Linear systems of Equations: Gauss Elimination, Gauss-Jordan method, LU decomposition, iterative methods, and Gauss-Seidel iteration.	07 Jan19 to 31 Jan 19	2 3 3 4 3		

		Unit-IV: Numerical Calculus Numerical differentiation, Errors in numerical differentiation, Numerical Integration, Trapezoidal rule, Simpson's 1/3 - rule, Simpson's 3/8 rule, error estimates for Trapezoidal rule and Simpson's rule.	01 Feb19 To 23 Feb19	3 4 2 2 2 2		

Sign of Staff

Head

Principal

PRINCIPAL
Rajarshi Shahu Mahavidyalaya
LATUR – 413512