

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

(Autonomous)

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) |
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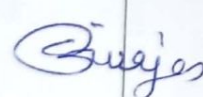
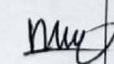
2. Summary of Lesson Plan

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

| | | | | | | |
|--|---|--|---|---------------------------------|-----------|--|
| | | Unit-IV: Measure and integration in a product spaces: Measurability in a product spaces The product measure and Fubini's theorem Lebesgue measure in Euclidean space. | 28 Jan 18 To 28 Feb 18 | 3 4 2 2 2 3 2 | | |
| |  sign of staff Dr. S. B. Birajdar | |  Head | | Principal | |

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(Autonomous)

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 |
|---------|-----------|----------------------|-------------|--|
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| 2 | M.Sc.-I | | | Measure & Integration Theory |
| 3 | M.Sc.-II | | | Numerical Analysis(A) |
| 4 | B.Sc-II | | | Practical |

2. Summary of Lesson Plan

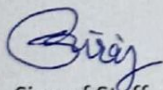
Name of Teacher: Dr. S.B.Birajdar


Class : M.Sc.-II (fourth semester)

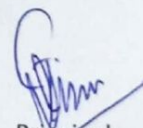
| Sr. No. | Subject | Unit and Chapter to be covered | Date | No. of Lectures | Academic activities to be organized | No. of Test / Assignment with topic and date |
|---------|---|--|------------------------------------|---------------------------------|---|--|
| 1 | Mathematics Course code: P-NUA-468 Numerical Analysis(A) | Unit I : Iterative solutions of nonlinear equation: bisection method. Fixed-point iteration, 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: | | | 1 |
| | | interpolation | 17 Dec18 | | 2 |
| | | polynomial, divided difference interpolation, | to | | 2 |
| | | Aitken's formula, finite difference formulas, | 05 Jan 19 | | 2 |
| | | Hermite's interpolation, | | | 2 |
| | | double interpolation. | | | 3 |
| | | Unit III: | | | |
| | | Linear systems of Equations: Gauss Elimination, Gauss-Jordan method, LU decomposition, iterative methods, and Gauss-Seidel iteration. | | | |
| | | | 07 Jan19 | | 2 |
| | | | to | | 3 |
| | | | 31 Jan 19 | | 3 |
| | | | | | 4 |
| | | | | | 3 |

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


Sign of Staff


Head


Principal

PRINCIPAL
Gajrajshi Shahu Mahavidyalaya
LATUR - 413512