Rajarshi Shahu Mahavidyalaya, Latur

(Autonomous)

Department of Mathematics

Structured Work Plan for Teaching

20/06/2022 to 15/10/2022

1. Details of Classes to be taught

Sr. No.	Class	Name of Teacher	Subject	Paper	Course Code	Workload
1	M.Sc-II(Sem-III)	Dr.Mahesh S Wavare	Mathematics	Coding Theory –I-XI	P-COT-367	06
2	B.Sc-I			Lab Course –I	U-MAT-140	06
3	B.Sc-II			SEC R Software	U-ADC-334-R	03
4	M.Sc I			Lab Course -I	P-LAB-170	04
5	M.Sc-I (Sem-I) M.Sc-II(Sem-III)			Seminar and Research Project	P-SEM-169,P-SEM-269,P-Proj-371	04
6	UG-II	NCC Studies		Drill-1 CD FC and BC		04
				Total Workload		27

(Signature)

Course Teacher

(Dr. M. S. Wavare)

Head,
Department of Mathematics,
Rajarshi Shahu Mahavidyalaya,
(Autonomous) Latur-413512

PRINCIPAL
Rajarshi Shahu Mahavidyalaya
(Autonomous), Latur

C:\Users\mahes\Desktop\Mathematics 2022-23\Teaching Plan\TeachingPlanMSW2022-23.docx

Name of Teacher: Mahesh S Wavare Class : M.Sc. II (Third 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		*Unit I:* Error detection, correction and decoding introduction, Communication channels, Maximum livelihood decoding, Hamming distance, nearest neighbor / minimum distance, decoding distance of a code.	20/06/2022 To 10/07/2022	15	NPTEL Course Registration	Home Assignment
2	Maths	*Unit II:* Fields polynomials rings structure of finite fields, minimal polynomials vector spaces over finite fields	11/07/2022 to 05/08/2022	15	Seminar by students	Registration of NPTEL Course And Unit Test -I
3		*Unit –III* Linear codes , Hamming weight bases for linear codes , Generator matrix and parity check matrix, Equivalence of linear codes , Encoding with linear codes , Decoding of linear codes, Cosets nearest neighbor ,decoding for linear codes	6/08/2022 to 3/09/2022	15		Assignment solve

4	syndrome decoding *Unit-IV*	The main coding theory problem lower bounds sphere covering bound Gilbert-Varshamav bound hamming bounds and perfect codes, Binary Hamming codes, q-ray Hamming codes	4/09/2022 to 15/10/2022	15	Guest lecture	Homework Examples
5	M.Sc-II	Seminar and Research Project	20.06.2022 to 15.10.2022	30	Synopsis Writing NPTEL Resistration	Research Paper Survey Preparation of 3 to 4 Chapters of project

Course Teacher

(Dr. M. S. Wavare)

Head

Principal

3. Summary of Lesson Plan of Lab Course -I (Practical)(U-MAT-140)

Name of Teacher: Mahesh S Wavare   Class   : B. Sc. I (First 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	Maths	Practical 1 Practical 2 Practical 3 Practical 4 Practical 5 Practical 6 Practical 7 Practical 8 Practical 9 Practical 10 Practical 11 — Section I	01/08/2022 To 10/09/2022	15	MATLAB demos	Similar type example for homework
2		Practical 1 Practical 2 Practical 3 Practical 4 Practical 5 Practical 6 Practical 7 Practical 8 Practical 9 Practical 10 *Practical 11* — Section II	11/09/2022 To 15/10/2022	15	Solving problems	Similar type example for homework

Mu)
Course Teacher
(Dr. M . S. Wavare)

Mu)
Head
Head,
Department of Mathematics,
Rajarshi Shahu Mahavidyalaya,
(Autonomous) Latur-413512

PRINCIPAL
PRINCIPAL
Rajarshi Shahu Mahavidyalaya
(Autonomous), Latur

4. Summary of Lesson Plan of SEC-R Software (U-ADC-334)

Name of Teacher: Mahesh S Wavare

Class : B. Sc. II (Third 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	Maths	*Section I :* Basic fundamentals, installation and use of software, data editing, use of R as a calculator, functions and assignments.Use of R as a calculator, functions and matrix operations, missing data and logical operators.	27/7/2022 To 30/08/2022	15	SWYAM -NPTEL Registration	Solving of NPTEL Assignments
2		*Section II :* Conditional executions and loops, data management with sequences. Data management with repeats, sorting, ordering, and lists	31/08/2022 to 15/10/2022	15	Hands on Session	

Mw

Course Teacher

(Dr. M . S . Wavare)

Mw

Head

(Dr. M . S . Wavare)

Principal

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur
Structured Work Plan for Teaching
(Dec-2022 to Mar-2023)

Sr. No.	Class	Name of the Teacher	Subject	Paper
1	M.Sc-II Sem-IV	Dr. Mahesh S Wavare	Mathematics	Coding Theory-II P-COT-367

Sr. No.	Unit	Unit to be covered	Date	No. of Lectures	Academic activities to be organized	No. of Test/ Assignment with topic and date
1	UNIT – I	Bounds in Coding Theory	08-12-2022 to 31-12-2022	12	SWYAM-NPTEL course Registration	Home Assignment on Unit I
2	UNIT – II	Construction of Linear codes	01-01-2023 to 18-01-2023	12	Home Assignments	
3	UNIT – III	Cyclic Codes	19-01-2023 to 28-02-2023	20	Activity Based Test	Test on Unit II and III
4	UNIT – IV	Some special cyclic codes.	01-03-2023 to 29-03-2023	16		

Teacher

Head,
Head,
Department of Mathematics,
Rajarshi Shahu Mahavidyalaya,
(Autonomous) Latur-413512

Principal
PRINCIPAL
Rajarshi Shahu Mahavidyalaya
(Autonomous), Latur

Sr. No.	Class	Name of the Teacher	Subject	Paper
1	B.Sc-I Sem-II	Dr. Mahesh S Wavare	Mathematics	Lab Course -II(Algebra Using MATLAB) U-MAT-241

Sr. No.	Unit	Unit to be covered	Date	No. of Lectures	Academic activities to be organized	No. of Test/ Assignment with topic and date
1	Section – I	Elementary Algebra	12-12-2022 to 12-02-2023	15	Basic Programming	
2	Section – II	Matrix Algebra	13-02-2023 to 29-03-2023	15	Basic Programming	

Teacher

Head,
Head,
Department of Mathematics
Rajarshi Shahu Mahavidyalaya,
(Autonomous) Latur-413512

Principal
PRINCIPAL,
Rajarshi Shahu Mahavidyalaya
(Autonomous), Latur

Shiv Chhatrapati Shikshan Sanstha's
Rajarshi Shahu Mahavidyalaya (Autonomous), Latur
Structured Work Plan for Teaching
(Dec-2022 to Mar-2023)

Sr. No.	Class	Name of the Teacher	Subject	Paper
1	B.Sc-III	Dr. Mahesh S Wavare	Mathematics	**SEC-Python Programming U-ADC-640**

Sr. No.	Unit	Unit to be covered	Date	No. of Lectures	Academic activities to be organized	No. of Test/ Assignment with topic and date
1	Section-I	Introduction to Python	12-12-2022 to 12-02-2023	15	SWYAM-NPTEL course Registration	
2	**Section-II**	Programming in Python	13-02-2023 to 29-03-2023	15	To Develop Programming Skills in Python	
3						
4						

Teacher

Head
Head,
Department of Mathematics,
Rajarshi Shahu Mahavidyalaya,
(Autonomous) Latur-413512

Principal
PRINCIPAL
Rajarshi Shahu Mahavidyalaya
(Autonomous), Latur