स्थापना - १९७०

Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Structured Work Plan for Teaching (Odd Semester)

(Academic Year–2019-20)

Details of Classes to be taught

Sr. No.	Class	Name of Professor	Subject	Paper
1	B.Sc.III	Prof. S. N. Shinde	Botany	Plant Pathology I
2	M.Sc.II			Angiosperms Systematics

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: Fundamentals of Plant Pathology (10 L)**	1. Scope, importance, history and advancement of plant pathology. 2. Classification of plant diseases on the basis of causal organism and symptoms. 3. Field and laboratory diagnosis- Isolation of plant pathogens from infected plant parts, soil and air. 4. Pure culture technique, Koch's postulates for pathogenicity.	04/07/19 To 02/08/19	02 02 02 02 02		
2	**UNIT-II: Plant Diseases-I (12 L)**	Symptoms, causal organisms, disease cycle and control measures of : 1. Green ear of Bajra. 2. leaf spot of tomato. 3. Rust of Soybean. 4. Red rot of Sugarcane. 5. Angular leaf spot of cotton. 6. Yellow vein mosaic of Bhendi	03/08/19 To 27/08/19	03 02 02 03 01 01		Unit Test-I

3	**UNIT-III: Plant Diseases-II (13 L)**	Symptoms, causal organisms, disease cycle and control measures of: 1. Ergot of Bajara, 2. Whip smut of Sugarcane, 3. Oil spot disease of pomegranate, 4. Leaf spot of Turmeric (*Colletotrichum capsici*) 5. Citrus canker, 6. Bunchy top of banana 7. Little leaf of Brinjal	29/08/19 To 24/09/19	03 02 02 03 01 01 01	Collection of diseased plant	
4	**UNIT-IV: Plant Disease Development (10 L)**	1. Definition of disease, disease pyramid 2. Disease development- Mode of entry of pathogens (through stomata, wounds, root hairs and buds), 3. Factors affecting disease development- Temperature, moisture, wind and soil pH, 4. Dispersal of plant pathogens	28/09/19 To 22/10/19	01 03 03 03		Unit Test-II

Teacher

Head

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Structured Work Plan for Teaching (Odd Semester)

(Academic Year–2019-20)

M. Sc. II Angiosperms Systematics

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	**Credit - I Modern Trends in Taxonomy**	1. Aims, principles and practices in taxonomy. BotanicalNomenclature: Brief history, Scientific names, ICN, Principles. 2. Tools of taxonomy: Floras, monographs, revisions, websites. Herbarium and botanical gardens, Botanical Survey of India. 3. Floristics: Need and significance. 4. Morphological features used in identification. 5. Biodiversity, types, importance and methods of conservation. 6. Taxonomic Structure: Taxonomic hierarchy, Taxonomy in relation to morphology and anatomy.	05/07/19 To 02/08/19	15	Guest Lecture	
2	**Credit- II Classificati on System:**	1. Importance and need for classification. Criteria used for classification; 2. Artificialsystems of classification - Theophrastus, Linnaeus. 3. Natural system of classification - Bentham and Hooker. 4. Phylogenetic systems of classification – Takhtajan. 5. APG system of classification, contributors, A .P.web. 6. Plant Speciation: Allopathic / Abrupt / Sympatric / Hybrid / Apomictic speciation, Isolating mechanisms.	04/08/19 To 27/08/19	15		Unit Test-I

3	**Credit- III Study of Families-I- Dicotyledons**	**A) Polypetalae:** 1. Ranales – Magnoliaceae, 2. Parietales – Papaveraceae. 3. Malvales- Tiliaceae. 4. Geraniales-, Rutaceae. **B) Gamopetalae:** 1. Rubiales – Rubiaceae,. 2. Asterales – Asteraceae. 3. Personales- ,Bignoniaceae. 4. Lamiales –Verbenaceae	28/08/19 To 24/09/19	15	Collection of Flowering Twigs for Herbarium	
4	**Credit - IV Study of Families-II: Dicotyledons**	**(A) Apetalae:** 1.Curvembryae – Amarantaceae. 2. Micrombryae – Piperaceae. 3. Unisexuales –Casuarinaceae. **B) Monocotyledonae:** 1.Microspermae- Orchidaceae. 2. Epigynae – Scitamineae. 3. Coronarieae –Commelinaceae. 4. Nudiflorae – Typhaceae. 5. Cyperales - Cyperaceae .	26/09/19 To 24/10/19	15		Unit Test-II

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Structured Work Plan for Teaching (Even Semester)

(Academic Year–2019-20)

Details of Classes to be taught

Sr. No.	Class	Name of Professor	Subject	Paper
1	M.Sc.II	S. N. Shinde	**Botany**	Plant Pathology II

Summary of Lesson Plan:

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	**Credit I: Introduction to Plant Pathology**	1. History: Beginning of modern plant pathology; 2. Disease inciting agents: i) Biotic ii) Abiotic agents: 3. Symptoms of plant diseases: Symptoms caused by Biotic agent 4. Dissemination of plant pathogen. 5. Economic importance of plant diseases.	11/12/19 To 06/01/20	03 03 03 03 03		
2	**Credit- II: Epidemiology and forecasting of plant diseases**	1. Epidemiology and forms of epidemics: 2.Disease assessment and forecasting. 3. Pathogenesis: Penetration and entry by plant pathogen; 4. Survivals of plant pathogen. 5. Effects of infection on the host:	07/01/19 To 5/02/20	03 03 03 03 03		Unit Test-I
3	**Credit- III: Diseases of crop plants I**	Symptomology, causal organism,	06/02/20	15	Herbarium	

	crop plants I	etiology and control measures of:- 1) Stem rust of Wheat. 2) Slow decline of Citrus 3) Head smut of Jowar. 4) Wilt of Arhar. 5) Leaf spot of Potato 6) Tikka disease of Groundnut. 7) Citrus Canker 8) Broom rape 9) Gram Blight Disease. 10) Yellow Vein Mosaic of Bhendi.	06/02/20 To 03/03/20		Herbarium of diseased material	
4	**Credit IV: Diseases of crop plants II**	1) Leaf curl of Chilly. 2) Anthracnose of Mango. 3) Wilt of Sugarcane. 4) Black rot of Crucifers. 5) Fruit rot of Cucurbits. 6) Gummosis of sugarcane. 7) Giant mistletoes (Loranthus) – Citrus 8) Rust of Pea. 9) Whip Smut of Sugarcane. 10) White Rust of Mustard.	05/03/20 To 29/03/20	15		Unit Test-II

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Structured Work Plan for Teaching (Even Semester)

(Academic Year–2019-20)

Details of Classes to be taught

Sr. No.	Class	Name of Professor	Subject	Paper
1	B.Sc.III	Prof. S. N. Shinde	Botany	Plant Pathology II

Summary of Lesson Plan:

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: Aerobiology and Seed Pathology**	1. Aerobiology- Definition, scope and importance 2. Disease forecasting. 3. Seed pathology-Definition, i. Seed borne pathogens (external and internal). ii. Detection of seed borne pathogens by blotter paper and agar plate methods. iii. Seed treatment (hot water, solar, chemical,) iv. Seed certification	11/12/19 To 04/01/20	10		
2	**UNIT-II: Plant Diseases-I**	Symptoms, causal organisms, disease cycle and control measures of 1.Tikka disease ofgroundnut, 2.White rust of Mustard, 3.Loose smut of Wheat, 4.Rust of Jowar, 5.Grain smut of Jowar, 6 .Leaf curl of tomato	07/1/20 To 09/02/20	12	Field Visit	Unit Test-I
3	**UNIT-III: Plant Diseases-II**	Symptoms, causal organisms, disease cycle and control measures of 1.Downy mildew of Grape 2.Stem rust of Wheat 3.Wilt of Tur 4. Late blight of Potato	12/02/20 To 03/03/20	13	Herbarium of diseased material	

4	**UNIT –IV: Defence Mechanism and Plant Disease Management**	1. Structural defense (pre existing and post infectional) 2. Biochemical defense- pre existing and postinfectional (phytoalexins) 3. Exclusion and eradication, 4. Chemical control-General account of Sulphur, Copper, systemic fungicides and antibiotics, 5. Integrated pest management 6. Biological control	05/03/20 To 30/03/20	10		Unit Test-II

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