

**FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS), KOLLAM
DEPARTMENT OF BOTANY**

Teaching Plan 2018-2019

Subject: Core Course XI Semester: VI

Paper: 15UB0643

Title: Horticulture, Plant breeding and Research methodology

Name of Teacher	Initials	Module No	Title of the Module	IH
Ms Anitha A.	AN	1	Horticulture	35
Ms Jaya James	JA	2	Plant Breeding	20
Ms Jaya James	JA	3	Research methodology	17
Total Instructional Hours (IH)				72

Day	Date	Topic	IH	Teacher
D1	15.11.2018	Introduction- Divisions of horticulture- Importance and scope of horticulture	1	AN
		Introduction; search and research	1	JA
D2	16.11.2018	Introduction, objectives in plant breeding	1	JA
D3	19.11.2018			
D4	20.11.2018	Principles of garden making-types of pots and containers	1	AN
D5	22.11.2018	Important national and international plant breeding institutes	1	JA
		Need for research	1	JA
D6	23.11.2018	Plant introduction. Agencies of plant introduction in India	1	JA
D7	26.11.2018			
D8	27.11.2018	Potting mixture and potting media- soil, sand, cocopeat, sphagnum moss, vermiculite	1	AN
D9	28.11.2018			
D10	29.11.2018	Soil types, soil preparation	1	AN
		Stages of research- Definition of problem, execution of problem, interpretation of results	1	JA

D11	30.11.2018	Procedure of introduction- Acclimatization- Achievements	1	JA
D12	03.12.2018			
D13	04.12.2018	Irrigation methods	1	AN
D14	05.12.2018			
D15	06.12.2018	Selection- Mass selection	1	JA
		Characteristics of research	1	JA
D16	07.12.2018	Pureline selection and clonal selection	1	JA
D17	10.12.2018			
D18	11.12.2018	Propagation methods- Conventional (Cuttings, true seeds)	1	AN
D19	12.12.2018			
D20	13.12.2018	Propagation method – Non conventional (Layering- Air layering, Ground layering (Tip trench and compound),	1	AN
		Types of research- quantitative & qualitative	1	JA
D21	14.12.2018	Genetic basis of selection and methods	1	JA
D22	17.12.2018			
D23	18.12.2018	Budding- T-budding, patch budding	1	AN
D24	19.12.2018			
D25	03.01.2019	Hybridization: Procedure of hybridization	1	JA
		Experimental design-introduction	1	JA
D26	04.01.2019	inter generic, inter specific, inter varietal hybridization with examples	1	JA
D27	07.01.2019			
D28	08.01.2019	Grafting- Approach grafting, Bridge grafting, Whip and tongue grafting	1	AN
D29	09.01.2019			

D30	10.01.2019	Micropropagation (brief account only)	1	AN
		components of experimental designs- Randomized blocks	1	JA
D31	11.01.2019	Composite and synthetic varieties	1	JA
D32	14.01.2019			
D33	15.01.2019	Garden tools and implements- Lawn mower, nursery spade, secateurs, pruning shears, budding knives, springlers	1	AN
D34	16.01.2019	CAT I		
D35	17.01.2019	CAT I		
D36	18.01.2019	CAT I		
D37	21.01.2019	CAT I		
D38	22.01.2019	CAT I		
D39	23.01.2019	CAT I		
D40	24.01.2019	Manures and fertilizers- organic manure, compost	1	AN
		Completely randomized designs	1	JA
D41	25.01.2019	Production of cybrids	1	JA
D42	28.01.2019			
D43	29.01.2019	vermicompost and biofertilizers	1	AN
D44	30.01.2019			
D45	31.01.2019	Chemical fertilizers- NPK ; Time and application of manures and fertilizers- Foliar spray	1	JA
		Preparation of a project report: Data analysis and consolidation of photographs	2	JA
D46	01.02.2019	Heterosis and inbreeding depression- genetic basis	1	JA
D47	04.02.2019			

D48	05.02.2019	Components of garden- Landscaping principles; Lawns, Trees, shrubs and shrubberies,	2	AN
D49	06.02.2019			
D50	07.02.2019	climbers and creepers, flower beds and borders and ornamental hedges	1	AN
		illustrations, tables and graphs	1	JA
D51	08.02.2019	Male sterility	1	JA
D52	11.02.2019			
D53	12.02.2019	Carpet beds, topiary, trophy, rockery. Conservatory or green houses	1	AN
D54	13.02.2019			
D55	14.02.2019	Indoor garden, Roof garden	2	JA
		Title, Introduction	1	JA
D56	15.02.2019	Polyploidy breeding	1	JA
D57	18.02.2019			
D58	19.02.2019	Bonsai	2	AN
D59	20.02.2019			
D60	21.02.2019	Flower arrangement- Containers and requirements for flower arrangement	2	AN
		Review of literature, materials and methods,	1	JA
D61	22.02.2019	Mutation Breeding- method-	1	JA
D62	25.02.2019			
D63	26.02.2019	Free style arrangement	1	AN
D64	27.02.2019			
D65	28.02.2019	Shallow and mass arrangement	2	AN
		results, discussions, summary	1	JA
D66	01.03.2019	Mutation breeding – achievements in	1	JA

		India		
D67	05.03.2019	CAT II		
D68	06.03.2019	CAT II		
D69	07.03.2019	CAT II		
D70	08.03.2019	CAT II		
D71	11.03.2019	CAT II		
D72	12.03.2019	CAT II		
D73	14.03.2019	Japanese Ikebana	1	AN
		References, Acknowledgements	1	JA
D74	15.03.2019	Breeding techniques and achievements with reference to the following crops in India a) Rice b) rubber	2	JA
D75	18.03.2019			
D76	19.03.2019	Dry flower arrangement	1	AN
D77	20.03.2019			
D78	21.03.2019	Indian styles of flower arrangement	2	AN
		Bibliography- method of citing and arrangement of references	1	JA
D79	22.03.2019	c) pepper d)coconut	1	JA
D80	25.03.2019			
D81	26.03.2019	Revision	1	AN
D82	27.03.2019			
D83	28.03.2019	Revision	1	JA
D84	29.03.2019	Revision	1	JA
D85	01.04.2019	ESE		
D86	02.04.2019	ESE		
D87	03.04.2019	ESE		
D88	04.04.2019	ESE		
D89	05.04.2019	ESE		

D90	08.04.2019	ESE		
Total Instructional Hours			72	

Anitha. A.

Name & Signature of the Course Co-ordinator

HoD

IQAC