

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS), KOLLAM
DEPARTMENT OF Botany
Teaching Plan 2018-2019

Subject: Botany Core Theory Semester: **II**

Paper: 15PBO22

**Title: ENVIRONMENTAL BIOLOGY, FOREST BOTANY,
 PHYTOGEOGRAPHY & CONSERVATION BIOLOGY**

Name of Teacher	Initials	Module No	Title of the Module	IH
Dr. Sinilal B	SL	1	Environmental Biology	18
Mrs. Nirmala Jeyarani	NJ	1	Environmental Biology	18
Mrs. Smirithi S Pillai	SM	1	Environmental Biology	18
Mrs. Jaya James	JA	2	Forest Botany	9
Mrs. Smirithi S Pillai	SM	3	Phytogeography	18
Mrs. Smirithi S Pillai	SM	4	Conservation Biology	18
Mrs. Jaya James	JA	4	Conservation Biology	9
Total Instructional Hours (IH)				108

Day	Date	Topic	IH	Teacher
D1	14/1/2019	----		
D2	15/1/2019	Urbanization and Conservation	1	SM
D3	16/1/2019	Major terrestrial biomes	1	SM
D4	17/1/2019	Nature of communities, community structure and attributes	1	NJ
		Introduction to Ecology	1	SL
		Forests- definition, study of various forests of India and forests of the world	1	JA
D5	18/1/2019	Introduction to Phytogeography	1	SM
		Concept, aim and principles of conservation	1	JA
D6	21/1/2019	----		
D7	22/1/2019	Environmental problems of urban and rural areas	1	SM
D8	23/1/2019	Major terrestrial biomes	1	SM
D9	24/1/2019	Levels of species diversity and its	1	NJ

		measurement, Edge effect and Ecotone Levels of organization and habitat	1	SL
D10	25/1/2019	Define-Phytogeography-static and dynamic phytogeography	1	SM
D12	28/1/2019	----		
D13	29/1/2019	Planning for environmentally compatible human settlements and strategy for sustainable industrial devt.	1	SM
D14	30/1/2019	Major terrestrial biomes	1	SM
D15	31/1/2019	Characteristics of a population Study of ecology based on habitat Forest products-major products with reference to kerala	1 1 1	NJ SL JA
D16	1/2/2019	Define-Phytogeography-static and dynamic phytogeography Conservation on biodiversity-objectives, definition etc.	1 1	SM JA
D17	4/2/2019	----		
D18	5/2/2019	Natural resources and depletion	1	SM
D19	6/2/2019	Ecological succession- types	1	SM
D20	7/2/2019	Population growth curves, population regulation Ecological niches, concept of habitat and niches	1 1	NJ SL
D21	8/2/2019	Geological history and evolution of plant life	1	SM
D22	11/2/2019	----		
D23	12/2/2019	Conservation and energy: causes of energy crisis. Conservation of energy source in industry.	1	SM
D24	13/2/2019	Mechanism of succession	1	SM
D25	14/2/2019	R and k selection, concept of meta	1	NJ

		population-demes and dispersal Niche width and overlap, fundamental and realized niche, resource partitioning, character displacement Forest products-major products with reference to kerala	1 1	SL JA
D26	15/2/2019	Geological history and evolution of plant life	1	SM
D27	18/2/2019	----		
D28	19/2/2019	Conservation of energy source in the agriculture ,transport sector	1	SM
D29	20/2/2019	Changes involved in succession	1	SM
D30	21/2/2019	Age structured populations .Species interactions Physical and biotic environment	1 1	NJ SL
D31	22/2/2019	Geological history and evolution of plant life Roles of IUCN, MAB, Red Data Book, Threatened plants	1 1	SM JA
D32	25/2/2019	----		
D33	26/2/2019	Renewable and non-renewable energy	1	SM
D34	27/2/2019	Concept of climax in succession	1	SM
D35	28/2/2019	Types of interactions – inter specific competition Biotic and abiotic interactions Influence of forest on environment	1 1 1	NJ SL JA
D36	1/3/2019	Factors of plant distribution	1	SM
D37	5/3/2019	Development of non-polluting energy systems- solar and wind energy	1	SM
D38	6/3/2019	Applied ecology: environmental pollution	1	SM
D39	7/3/2019	Intra specific competition	1	NJ

		Concepts and dynamics of ecosystems	1	SL
D40	8/3/2019	Theories concerning present and past distributions-continental drift, glaciations Conservation strategies: In-situ, ex-situ conservation, Biosphere reserves	1 1	SM JA
D41	11/3/2019	----		
D42	12/3/2019	Energy recovery from solid wastes	1	SM
D43	13/3/2019	CAT I		
D44	14/3/2019	CAT I		
D45	15/3/2019	CAT I		
D46	18/3/2019	CAT I		
D47	19/3/2019	CAT I		
D48	20/3/2019	Global environmental change	1	SM
D49	21/3/2019	Herbivory, carnivory and symbiosis Types of ecosystems- Aquatic and terrestrial Influence of forest on environment	1 1 1	NJ SL JA
D50	22/3/2019	Theories concerning present and past distributions-continental drift, glaciations Wild life sanctuaries and National Parks in India (Kerala)	1 1	SM JA
D51	23/3/2019	Autecological level concept of species, Ecospecies Recycling, energy flow and transaction, Ecosystem management Soil, climate, of India	2 2 1	NJ SL SM
D51	25/3/2019	----		
D52	26/3/2019	Non-convention energy sources	1	SM

D53	27/3/2019	Biodiversity - status, monitoring and documentation	1	
D54	28/3/2019	Study of climate, their distribution and adaptation to the environment- Deserts, Tundra, grassland Components of ecosystem	1 1	NJ SL
D55	29/3/2019	Existence of land bridges and their effect on plant distribution	1	SM
D56	30/3/2019	Synecological level concept of species (Ecosystem level) Development of ecosystems Sustainable use of bioresources Consequence of deforestation and industrialization	1 1 2 1	NJ SL JA JA
D57	2/4/2019	Conservation of all physical resources	1	SM
D58	3/4/2019	Major drivers of biodiversity change; biodiversity management approaches	1	SM
D59	4/4/2019	Study of climate, their distribution and adaptation to the environment- Savannah, Temperate forests. Application of law of Thermodynamics Consequence of deforestation and industrialization	1 1 1	NJ SL JA
D60	5/4/2019	existence of land bridges and their effect on plant distribution Sustainable development	1 1	SM JA
D62	9/4/2019	Afforestation – social forestry, agroforestry	1	SM
D63	10/4/2019	Current environmental issues in India	1	SM
D64	11/4/2019	Study of climate, their distribution and adaptation to the environment-Tropical Rain forests, Mangroves	1	NJ

		Food chain, food web, trophic levels	1	SL
D65	12/4/2019	Phytogeographic regions of the world	1	SM
D66	16/4/2019	International Biological Programme (IBP), Man and Biosphere (MAB), IUCN, World Environment day,	1	SM
D67	17/4/2019	Environment education and awareness. Disaster management	1	SM
D68	23/4/2019	Wild life conservation act (1972)	1	SM
D69	24/4/2019	Environment laws	1	SM
D70	25/4/2019	Ecological concept of species (Genecology)	1	NJ
		Ecological pyramids	1	SL
		Consequence of deforestation and industrialization	1	JA
D71	26/4/2019	Phytogeographic regions of the world	1	SM
		Agriculture and Industrialization and conservation of resources	1	JA
D72	30/4/2019	Indian forest conservation act (1980)	1	SM
D73	4/6/2019	Environment Protection Act	1	SM
D74	7/6/2019	Phytogeographic regions of the world	1	SM
D75	10/6/2019	----		
D76	11/6/2019	Environment Protection Act	1	SM
D77	12/6/2019	Global environment problems – ozone depletion, green house effect	1	SM
D78	13/6/2019	Ecads (ecophenes), Ecotypes	1	NJ
		Evolution of ecosystems.	1	SL
D79	14/6/2019	Flora and vegetation of India	1	SM
D80	17/6/2019	CAT II		
D81	18/6/2019	CAT II		

D82	19/6/2019	CAT II		
D83	20/6/2019	CAT II		
D84	21/6/2019	CAT II		
D85	24/6/2019	----		
D86	25/6/2019	United Nations Environmental Programme	1	SM
D87	26/6/2019	Global environment problems – global warming, acid rain	1	SM
D88	27/6/2019	----		
D89	28/6/2019	Soil, climate, of India	1	SM
		Role of agriculture and industry in development	1	JA
D90	29/6/19	Eutrophication	1	SM
		Conservation of all physical resources	1	SM
		Nuclear hazards – climate change	1	SM
		Revision	1	NJ
		Productivity and biogeochemical cycles	1	SL
Total Instructional Hours			108	

J. Nirmala Jeyarani

Name & Signature of the Course Co-ordinator

HoD