JHARKHAND Rai University
UGC RECOGNISED UNIVERSITY
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Lesson Plan & Tracking

Programe : M.Sc (Agriculture)	**Session :**	**Year : 2022**	**Sem:** III
Course: Soil Biology and Biochemistry(Theory)			
Name of the Faculty: Puja Singh	**Commencement Date:**		**Date of Closure:**

Lecture No.	Week	Unit	Topics to be Covered	Blended Mode			Date	Duration	Tracking of Lectures	Related Course Outcome	Signature of Faculty	Signature of HoD	Remarks (if any)
				ICT Tool/Platform/ LMS	Resources	Activity							
1	1	I	Soil biota, soil microbial ecology, types of organisms in different soils;										
2	1		soil microbial biomass; microbial interactions; un-culturable soil biota.										
3	2		Microbiology and biochemistry ofroot-soilinterface; phyllosphere; rhizoshpere,										
4	2		soil, enzymes, origin, activities and importance;										
5	3		soil characteristics influencing growth and activity of microflora.										
6	3		Microbial transformations of nitrogen in soil										
7	4		Microbial transformations of phosphorus in soil										
8	4		Microbial transformations of sulphur in soil,										
9	5		Microbial transformations of iron in soil										

10	5	II	Microbial transformations of manganese in soil										
11	6		Biochemical composition of soil organic matter and crop residues,										
12	6		Biochemical composition and biodegradation of soil organic matter and crop residues,										
13	7		Humus formation; cycles of important organic nutrients										
14	7	III	Biodegradation of organic wastes and their use for production of biogas and manures;										
15	8		biotic factors in soil development; microbial toxins in the soil.										
16	8		Preparation and preservation of farmyard manure,										
17	9		Preparation and preservation of animal manures,										
18	9		Preparation and preservation of rural compost										
19	10		Preparation and preservation of urban compost										
20	10		Preparation and preservation of vermicompost.										
21	11	IV	Bio fertilizers – definition, classification, specifications,										
22	11		Method of production of bio fertilizers										
23	12		Role of bioferilizer in crop production										
24	12		BIS standards for bio fertilizer for quality control.										