



TEACHING PLAN DEPARTMENT OF BOTANY JULY 2022 - JUNE 2023



NAME OF THE TEACHER: DR. DIMBESHWAR DAS DESIGNATION: ASSISTANT PROFESSOR SESSION: JULY - DEC 2022

Name of the Teacher: Dr. Dimbeshwar Das Designation: Assistant Professor Session: July - Dec 2022

SI No. Semester Subject Stream Paper Code Number of Unit Teaching Methodololgy Duration Work Laod Learning Outcome students Unit 4: Algae To provide knowledge to the Unit 5: Cyunophyta, Chlorophyta, Xanthophyta tudents on various forms of Microbiology and Phycology HONS. C1 JULY - DEC 22 microbes and algae - their and Charophyta Unit 6: Phaeophyte and ecture Method, Audio-Visual characteristics and economic Aids, Practical based classes, 1 1 importance. 45 Rhodophyta Unit 4: The Cell 6 Hrs/Week Student Seminars, Class tests and Filed Trips Unit 5: Cell Wall and Plasma To expose the students on inok cular organisations life Biomolecules and Cell Biology HONS C 2 Membrane JULY - DEC 22 and also discusses cellular and Unit 6: Cell Organelles Unit 7: Cell Division molecular processes of life. Unit 1: Mendelism Genetics and its Extension Unit 2: Extrachromosomal ecture Method, Audio-Visual To impart knowledge of the Inheritance principles of heredity and different mechanisms of Aids, Practical based classes, Genetics HONS. C7 Unit 3: Linkage, Crossing JULY - DEC 22 34 6 Hrs/Week ent Seminars, Class tests Over and chromosome and Filed Trips inheritance mapping Unit 4: Variation in 2 ш chromosome number and structure vermicompost and the Unit 1: Introduction to Economic importance of verniculture Lecture Method, Audio-Visual vermiculture. The students will Unit 2: The species of Basics of Vermicomposting HONS. SEC 1.1 JULY - DEC 22 20 Aids, Practical based classes 2 Hrs/Week be able to produce good quality of Vermicompost and Vermiculture. Acquire skills carthworms Unit 3: Biology of and Filed Trips arthy vorms for entrepreneurship Unit 1: Imaging and related techniques Unit 2: Cell fractionation Lecture Method, Audio-Visual Aids, Practical based classes, To expose the students to Unit 3: Radioisotopes different techniques which can be used to study different 3 v Analytical Techniques in Plant Sciences HONS. DSE 1 16 Hrs/ Unit 4: Spectrophotometry Unit 5: Chromatography JULY - DEC 22 34 Student Seminars, Class tests and Filed Trips Weck Biological processes Unit 6: Characterization of is and nucleic acids Unit 7: Biostatistics

Teaching Plan

Vice Principal Gargan Colleve Sunanger



NAME OF THE TEACHER: DR. DIMBESHWAR DAS DESIGNATION: ASSISTANT PROFESSOR SESSION: JAN - JUNE 2023

Sl. No.	Semester	Subject	Stream	Paper Code	Unit	Duration	No. of students	Teaching Methodololgy	Work Laod	Learning Outcome	
		Mycology and Phytopathology	HONS.	C 3	Unit 6: Phytopathology	JAN - MAY 2023		Lecture Method, Audio- Visual Aids, Practical		To expose the students on the funga world, different fungal diseases their economic importance, etc	
1 П		Archegoniate	HONS.	C4	Unit 1: Introducation Unit 2: Bryophytes Unit 3: Type Stidics-Bryophytes Unit 6: Fossil Plants	JAN - MAY 2023	37	based classes, Student Seminars, Class tests and Filed Trips	6 Hrs/Weck	To expose the students or Bryophyte, Gymnosperins and Fossi Plants	
See.		Molecular	HONS.	C 8	Unit 1: Nucleie Acids: Carriers of genetic information Unit 2: The structure of DNA and RNA	JAN - MAY	27	Lecture Method, Audio- Visual Aids, Practical based classes, Student	1011-011-d	To impart knowledge of th principles of heredity and different	
	1111	Biology			Unit 3: The replication of DNA	2023		Seminars, Class tests and Filed Trips		mechanisms of inheritance	
2		Plant Systematics	HONS.	C 10	Unit 1: Significance of Plant systematics Unit 3: Morphology and Botanical nomenclature	JAN - MAY 2023	27	Lecture Method, Audio- Visual Aids, Practical based classes, Student	10 Hrs/Week	To expose the students to identification, classification and	
	IV	1917	1.18		Unit 7: Major families of Angiospenns	2023	1.2.2	Seminars, Class tests and Filed Trips		nomenclature of higher plants	
		Vermicompost Technology	HONS.		Unit 1: Small scale Vermicomposting Unit 2: Nutritional composition of vermicompost	JAN - MAY	09	Lecture Method, Audio- Visual Aids, Practical based classes and Filed Trips	2 Hrs/Week	To impart knowledge of the vernicompost and the Economic importance of verniculture. The students will be able to produce good quality of Vernicompost and Verniculture. Acquire skills for entrepreneurship	
				SEC 1.2	Unit 3: Identification of Earthworms, Prepartion, pakaging of vermicompost	2023					
	1				Unit 1: Plant Tissue Culture			Lecture Method, Audio-		To expose the students to application	
		Plant Biotechnology	HONS.	C 14	Unit 5: Applications of Biotechnology	JAN - MAY 2023	34	Visual Aids, Practical based classes and Filed Trips		of modern tools and techniques in Biology To expose the students to differen methods of plant improvement and	
		Plant Breeding		Della	Unit 1: Plant Breeding Unit 2: Methods of crop improvement Unit 3: Quantitative inheritance	JAN - MAY		Lecture Method, Audio- Visual Aids, Practical based classes and Filed Trips	12 Hrs/ Week		
3	VI			DSE 3	Unit 4: Inbreeding depression and heterosis Unit 5: Crop improvement and breeding	2023				breeding techniques.	
		Biostatistics	HONS	DSE 4	Unit 1: Biostatistics Unit 2: Collection of data primary and secondary	JAN - MAY	34	Lecture Method, ICT Tools and Practical based classes		To expose the students to different statistical tools for Biological data	
		DIOSELISTICS	HONS.	DSE 4	Unit 3: Measures of central tendency Unit 4: Correlation Unit 5: Statistical inference	2023				statistical tools for Biological data analysis	

Vice Principal D Coll it wur:



NAME OF THE TEACHER: MISS. SANDEEPA AGARWALA DESIGNATION: ASSISTANT PROFESSOR SESSION: JULY - DEC 2022

SI. No.	Scenester	Dec 2022 Subject	Stream	Paper Code	Unit	Duration	Number of	Teaching Methodololgy	Work Lood	Learning Outcome
		Microbiology and Phycology	HONS.	C1	Unit 4: Algae Unit 5: Cyascophyta, Chicrophyta, Xanthophyta and Charophyta Unit 6: Pheeophyta and Rhodophyta	JULY - DEC 22	students 45	Lecture Method, Audio- Visual Aids, Practical based classes, Student Seminars, Class tests and Filed Trips	5 Hrs/ Woek	To provide knowledge to the students on various forms of microbes and algas - their characteristics and economic importance.
3	1	Biomolecules and Cell Biology	HONS.	C 2 GE 1	Unit 1: Biomolecules Unit 2: Bioenergetics Unit 3: Erzymes	JULY - DEC 22		Lecture Method, Audio- Visual Aida, Practical based classes, Student Seminars,	2 Eirs /	To expose the students on molecular organisations life and also discusses cellular
		Biodiversity (Microbes, Algae, Fungi and Archegoniate)	OE		Unit 5: Introduction to Archegoniates Unit 6: Dryophytes Unit 7: Pteridophytes Unit 8: Oyunosperms	JULY - DEC 22	25	Lecture Method, Audio- Visual Aids, Practical based classes, Student Seminars and Class tests		To expose the students to different forms of plant life
		Anatomy of Angiosperms	HONS.	C 5	Unit 4: Apical Meristem Unit 5: Vascular cambium and Wood Unit 6: Adaptive and Protective system	JULY - DEC 22	34	Lecture Method, Audio- Visual Aids, Practical based	6Hrs/	To expose the students on the structural and anatomical organisations of plant tissues and their development
2	ш	Genetics	HONS.	C7	Unit 5: Fine Structure of Gene Unit 6: Gene Mutations Unit 7: Population and	Init 5: Fine Structure of lene classes, Student Seminars, Class tests and Filed Trips JULY - DEC 22 34		Week	To impart knowledge of the principles of heredity and different mechanisms of inheritance	
		Plant Austomy and Embryology	GE	GE 3	Unit 1: Meristematic and permanent tissues Unit 2: Organs Unit 5: Structural organization of flowers Unit 6: Pollimition and fertilization	JULY - DEC 22		Lecture Method, Audio- Visual Aida, Practical based classes, Student Seminars, Class tests and Filed Trips	4 Hrs / Week	To expose the students to the types of plant tissues their arrangement and also to plant reproduction
		Reproductive Biology of Angiosperms	HONS.	C11	Unit 1: Introduction Unit 2: Reproductive development Biology Unit 4: Orage Unit 5: Pollination and fertilization Unit 5: Pollination and	JULY - DEC 22		Leehire Method, Audio- Visual Aids, Practical based classes, Stadent Semirars, Class tests and Filed Trips		To expose the students to the process and mechanisms of plant reproduction.
	v	Bioinformatics	HONS.	DSE 2	Unit 1: Introduction to Bioinformatics Unit 2: Databases in Bioinformatics Unit 3: Biological Sequence Databases Unit 4: Stopance Alignments Unit 5: Molecular Philogene Unit 6: Applications of Bioinformatics		34	Leotare Method, Audio- Visual Aids, Practical based classes, Student Seminars and Class tests		To expose the students to the application of computation tools in solving Biological problems



NAME OF THE TEACHER: MISS. SANDEEPA AGARWALA DESIGNATION: ASSISTANT PROFESSOR SESSION: JAN - JUNE 2023

Teaching Plan

Name of the Teacher: Miss Sandeepa Agarwalla Designation: Assistant Professor, Session: Jan - May 2023

SI. No.	Semester	Subject	Stream	Paper Codo	Unit	Duration	Number of students	Teaching Methodology	Work	Learning Outcome
	- 19 C	Mycology and			Unit 4: Symbiotic Association			Lcoture Method, Audio-Visual	17000	To serve the state of the form
		Phytopatiology	HONS,	C 3	Unit 5: Applied Mycology	JAN - MAY 2023	37	Aids. Practical based classes, Student Seminars, Class tests and Filed Trips	6 Hrs /	To expose the students on the funga- world and their economic importance etc
		1 M 1983			Unit 4: Reridophytes			Lecture Mothod, Audio-Yisual Aids, Practical based classes, Student Seminars, Class tests and Filed Trips	Week	
1	п	Archegeniate	HONS.	C4	Unit 5: Oynmosperms	JAN - MAY 2023	37			To expose the studests on Pteridophytes Gymnosperms and Fossil Plants
			· · ·		Unit 1: Rant water relations			Leohiro Method, Audio-Yisual Aids, Practical based classes, Student Seminars and Class tests	4 Hrs / Week	a state
		Plant	122		Unit 2: Mineral Nutrition]	9			
14		Physiology and Metabolism	GE	GE 2	Unit 3: Translocation in phloen	JAN - MAY 2023				To expose the students to differ physiological processes metabo processes involved with plant life
		Metabolism		122	Unit 6: Enzymes	2023				
			1.000		Unit 7: Nitogen Metabolism	1		tests		
					Unit 4: Central Dogma and Gesetie Code			The Martin Providence		
		Molecular	HONS.	~ ~	Unit 5: Transcription	JAN - MAY		Lecture Method, Audio-Visual Aids, Practical based classes,		To impart knowledge of the principles of
		Biology	HONS.	C 8	Unit 6: Processing and	2023	27	Student Seminars, Class tests		heredity and different mechanisms of
					modification of RNA			and Filed Trips		inheritance
					Unit 7: Translation	1			5 Hrs /	
					Unit 3: Biolic Interaction				Week	
		Plant Ecology		NS. C9	Unit 5: Plant Communities	IN - MAY 2023		Lecture Method, Audio-Yisual		To expose the stadents to different
12		& Distance	HONS.		Unit 6: Ecosystem: Structure and		27	Aids, Practical based classes, Student Seminars and Class tests		physiological processes metabolic
2	IV	Phytogeography			Function					processes involved with plant life
•					Unit 7: Hytogeography					
12	1.1.2				Unit 4: Ecosystem					
- 2	< 1				Unit 5: Phytogeography Unit 6: Istroduction to plant					
18.13			taxonom	1						
1.11		Plant Ecology		Unit 7: Identification	JAN - MAY		Lecture Method, Audio-Visual	10-1	To expose the students to interaction of	
	Later 1	and Texonomy	GE	GE 4	a ride, ride used used used used used used used	Student Seminars and Class	4 Hrs / Week	plant life with the surroundings and also to identification, classification and		
					palynology, cytology,	2025		tests	WCCK	nomenclature of plants
	- C - 1	- 1. A			phytochemistry and molecular data		additionate of plans			
			- R		Unit 12: Biometrics, Numerical	1	12 - L			1174
					taxoniomy and eladistics					1.2.1
					Unit 5: ATP-Synthesis					Service Se
	· · · · ·	Plant		ONS. C 13	Unit 6: Lipid metabolism	JAN - MAY		Lecture Method, Audio-Yisual Aids, Practical based classes,		To expose the students to various metabolic processes involved with plant
1.1.1.1		Metabolism	HONS.		Unit 7: Nitrogen metabolism		34	Student Seminars and Class		
3	VI				Unit 8: Mechanisms of signal			tosta	12 Hrs/	life
	**				transduction				Week	Alexandra and a state of the st
1.11	1.1	Plent			Unit 2: Recombinant DNA technology			Lecture Method, Audio-Yisual		1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
	1.1	Biotechnology	HONS.	C 14	Unit 3: Gene Cloning	JAN - MAY 2023	34	Aids, Practical based classes		To expose the students to application of
2.2	1.1.1.1	and compared by			Unit 4: Methods of gene transfer	2023		and Filed Trips		modern tools and techniques in Biology
_					ount 4. Mechoos of gene transfer					Contraction of April 201

of Botany Gargaon Coloras Simoluguri Dist Swasagar (In 195666 Assam

alanderpa



NAME OF THE TEACHER: SANGEETA CHETIA DESIGNATION: ASSISTANT PROFESSOR SESSION: JULY - DEC 2022

Session SL No.	Semester	Dec 2022 Subject	Stream	Paper Code	Unit	Duration	Number of	Teaching Methodololgy	Work Laod	Learning Outcome
	CELLER	Microbiology and Phycology	HONS.	C1	Unit 1: Introduction to Bacterial World Unit 2: Bacteria Unit 3: Viruses	JULY - DEC 22	students 45	Lecture Method, Audio- Visual Aida, Practical based classes, Student Seminara, Class tests and Filed Trips	11 Hrs / Week	To provide knowledge to the students on various forms of microbes and algae - their characteristics and economic
1	I	Biodiversity (Microbes, Algae, Fungi and Archegomiate)	GE	GE 1	Unit 1: Microbes Unit 2: Algae Unit 3: Forgi Unit 4: Lichen	JULY - DEC 22	25	Lecture Method, Audio- Visual Aids, Practical based classes, Student Seminars, Class tests and Filed Trips	5 Hrs / Week	To expose the students to different forms of plant life
		Acuscenty of Augiosperms	HONS.	C 5	Unit 1: Introduction and scope of Plant Anstomy Unit 2: Structure and development of plant body Unit 3: Tissues	JULY - DEC 22	34	Lecture Method, Audio- Visual Aide, Practical based classes, Student Seminars, Class tests and Filed Trips		To expose the students on the structural and matornica organisations of plant tissue and their development
2	u	Leonnic Brany	HONS.	C6	Unit 1: Origin of cultivated Pilerts Linit 2: Cercult Unit 3: Legitmen tarebes Unit 4: Sources of suger an aterbes Unit 6: Beverges Unit 7: Sources of oils and fais Unit 9: Drug vielding placto Unit 9: Drug vielding placto Unit 9: Drug vielding placto Unit 10: Timber facts Unit 11: There's Unit 12: Arcanatic and Petrocorps	- JULY - DEC 22	34	Lecture Method, Andio- Visual Ada, Practical based classes, Student Seminars, Class tests and Filed Trips	8 Hrs / Week	To express the students on vacious economically importent plants and plant products
		Plant Austomy and Embryology	GE	OE 3	Unit 3: Secondary Growth Unit 4: Adaptive and protective systems Unit 7: Embryo and endosperm Unit 8: Apornixis and polyembryony	JULY - DEC 22	25	Leeture Method, Atalio- Visual Aida, Practical based classes, Studeet Seminars, Class tests and Filed Trips	5 Brs/ Week	To expose the students to the types of plant tissues their arrangement and also to plan reproduction
3	v	Place Physiology	HONS.	C12	Const. Plant source relation Unit 2: Marcel source entries Unit 2: Marcel sources Unit 4: Translocation in the photom Unit 5: Plant Growth regulation Unit 6: Physiology of <i>Revening</i> Unit 7: Physiology of <i>Revening</i> Unit 7: Physiology of <i>Revening</i>		34	Lecture Mathod, Audio- Visual Ado, Practical Based classes, Stated Semiary, Class tests and Filed Trips	4 Hrs / Week	To expose the students to different physiological processes in plant life



NAME OF THE TEACHER: SANGEETA CHETIA **DESIGNATION: ASSISTANT PROFESSOR SESSION: JAN - JUNE 2023**

Teaching Plan

Name of the Teacher: Mrs. Sangeeta Chetia Designation: Assistant Professor Session: Jan - May 2023

		Subject	Stream	Paper Code	Unit	Duration	Number of students	Teaching Methodololgy	Work Laod	Learning Outcome
,	п	Mycology and Phytoputhology	HONS.	C3	Unit 1: Introduction to Fungi Unit 2: Chytridiomycota, Zygomycota, Ascomycota and Basidiomycota Unit 3: Allicd Fungi and Oxenycota	JAN - MAY 2023	37	Lecture Method, Audio- Visual Aids, Practical based classes, Student Sominars, Class tests and Filed Trips	4 Hrs / Week	To expose the students on the fungal world, different fungal diseases; their economic importance, etc
		Plant Physiology and Metabolism	GE	GE 2	Unit 4: Photosynthesis Unit 5: Respiration Unit 8: Plant growth regulators Unit 9: Plant response to light and temperatures	JAN - MAY 2023	9	Lecture Method, Audio- Visual Aids, Practical based classes, Student Seminars and Class tests	4 Hrs / Week	To expose the students to different physiological processes metabolic processes involved with plant life
		Plant Ecology & Phytogeography	HONS.	C 9	Unit 1: Introduction Unit 2: Soil Unit 4: Population Ecology	JAN - MAY 2023	27	Lecture Method, Audio- Visual Aids, Practical based classes, Student Seminars, Class tests and Filed Trips		To expose the students to interaction of plant with its sumoundings and also the geographic distribution of different plants
2	īv	Plant Systematics	HONS.	C 10	Unit 2: Texonomic hierarchy Unit 4: Systems of classification Unit 5: Biometrics, numerical laxonomy and cladistics Unit 6: Phylogeny of Angiosperms	JAN - MAY 2023	27	Lecture Method, Audio- Visual Aids, Practical based classes, Student Semians, Class tests and Filed Trips	6 Hrs / Week	To expose the students to identification, classification and nomenclature of higher plants
		Plant Ecology and Taxonomy	GE	GE 4	Unit 1: Introduction Unit 2: coological factors Unit 3: Plant corumunities Unit 9: Taxonomic hierarchy Unit 10: Botanical Nornenclature Unit 11: Classification	JAN - MAY 2023	25	Lecture Method, Audio- Visual Aids, Practical based classes, Student Seminars and Class tests	4 Hrs / Week	To expose the students to interaction of plant life with the surroundings and also to identification, classification and nomenclature of plants
3	vī	Plant Metabolism	HONS.	C 13	Unit 1: Concept of metabolism Unit 2: Carbon assimilation Unit 3: Carbohydrate metabolism Unit 4: Carbon Oxidation	JAN - MAY 2023	34	Lecture Method, Audio- Visiani Aids, Practical based classes, Student Seminars and Class fests	9 Hrs / Week	To expose the students to various metabolic processes involved with plant life

Head of Botany Simalugun Swasagar min 1857.55 Assam Dist