



AUXILIUM COLLEGE (Autonomous)

(Accredited by NAAC with A+ Grade with a CGPA of 3.55 out of 4 in the 3rd cycle)
Gandhi Nagar, Vellore – 6.

DEPARTMENT OF BOTANY

LESSON PLAN

2022-2023

LESSON PLAN

Academic Year : 2022-2023
 Class : II. Bsc. Zoology & I. Bsc. Chemistry
 Subject : Allied / optional allied - BOTANY & PRACTICALS
 Hours / Week : 2+2 / week
 Credits : 4

Semester : III / I
 Class Code :
 Subject Code : VABTA20
 Total Hours : 60 hours
 Total Marks : 100 marks.

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1-2	4	1	Classification of Plants - Cryptogams Fungi - General Characteris- Structures reproduction - Life cycle of Yeast & Agaricus	Chalk & Table PPT	Book material given	Assignment & Seminar
3-5	6+6	2	Agaricus - Life cycle continued - General Characteris of Bacteria - Structures & reproduction of Bacteria - Economic importance of Bacteria	,		Test
6-7	2+2	2	General Characters of Viruses - Structure of Viruses - TMV & Corona Virus Reproduction of Bacteriophages	,		
8-9	2+2 2+2	3	Bryophyta - General Characteris - Structure, Life cycle & reproduction			
10 th	2+2	3	Funaria - Structure, Reproduction - Vegetative & Sexual - Life cycle			
11 th	2+2	4 th	Genetics - Mendelism - Monohybrid & Dihybrid cross - Laws of Mendel Incomplete dominance			

Week	No. of hrs	unit	Topics to be covered	Teaching Methodology	Learning Resources	Methods of Evaluation
12-13	2+2 2+2	5	Ecology - Ecosystem - Structure & Functions of Ecosystem - Food chain - Foodweb and Ecological Pyramids	Chalk & Talk PPT	Book given	
14 ^K	2+2	5	Habitats Adaptations - Morphological Anatomical Physiological Hydrophytes	Chalk & Talk PPT	Book given	
15 ^K	2+2	5	Xerophytes - Morphological, Anatomical & Physiological adaptations	Chalk & Talk PPT	Book given	

LESSON PLAN

Academic Year : 2022-2023
 Class : I. SBE
 Subject : HORTICULTURE
 Hours / Week : 2 hrs / week
 Credits : 2

Semester : I & II
 Class Code :
 Subject Code : USBTB121
 Total Hours : 30hrs
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1.	2 hrs	1.1-1.3	Introduction to Horticulture - Requirements Types and soil and other nutrients	Videos, PPT Chalk & Board	Study material	Testis assignment
2-3	4 hrs	1.4-1.6	Irrigation - types - Minerals & other necessities - Cultivation method of Roses Mango	Chalk & Talk PPT	"	"
4-5	4 hrs 2 hr	2.1-2.6	Methods of Propagation - Cutting, Layers Grafting, Budding - Types - Role of Plant growth regulators in the culture	PPT	"	"
7-8	2+2	3.1-3.4	Potted Plants & Hanging Baskets - Indoor gardening - Hydroponics & Bonsai	Chalk & Talk	"	
9-10	2+2	3.5-3.6	Cut flowers - types and Preservation Flower decoration - display, bouquets & wreaths.	PPT & Videos		
11-12	2+2	4.1-4.6	Outdoor gardening - Landscaping, Rockery Indoor gardening - Kitchen gardening - Terrace garden	Chalk & Board PPT		

Proposed week	No. of Hrs	Unit	Topics to be covered	Teaching Methodology	Learning Resource	Method of Evaluation
13	2 hrs	5.1-5.2	Fruits & Vegetables types - Preservation	PPT Chalk & Talk	Book Material	Tests & Assignments
14	2	5.3-5.4	Preparation of Jam, Jelly, Squashes Ketchup - using Sugar salt & Chemicals	Chalk & Talk Videos	Book material	Assignment
15	2	5.5-5.6	Boim for fruits. Vegetable - canning, bottling and labeling	Chalk & Talk Videos	Book material.	Tests

LESSON PLAN

Academic Year : 2022-2023
 Class : II BSc Zoology & I. BSc. chemistry
 Subject :
 Hours / Week : 2h/week
 Credits : 2

Semester : I & II
 Class Code :
 Subject Code : VABTC20 / VBBTC20
 Total Hours : 30
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1-2	2+2	1.1-1.3	Algae slides as spotters and sectioning of Nostoc and Sargassum ^{raisie} leaf	Hands on training	Practical Manual	Tests/section valuation
3-4	2+2	1.3-1.6	Fungi Slides as Spotters and Bacteria spotters	"	"	"
5-6	2+2	2.1-2.2	Funaria Slides as Spotters Lycopodium - slides	"	"	"
7-8	2+2	2.3-2.4	Lycopodium - sectioning - Axis & Cone	"	"	"
9-10	2+2	2.5-2.6	Cycas - Slides as spotters	"	"	"
11-12	2+2	2.1-2.6	Cell Biology - Electron micrographs as spotters.	"	"	"

13-14	2+2	5.1-5.2	Ecology - Spotless Hydrophytes vs Xerophytes	Observation	Practical Manual	Observation Submission
15 10/10/22	2	5.3-5.4	Plant Pathology as spotted - Tikke diseases of groundnut, Citrus canker & TMV	Observation	Practical Manual	Record Valuation

LESSON PLAN

Academic Year : 2022-23
Class : B.Sc. Zoology / B.Sc. Chemistry
Subject : Allied / optional Allied Botany.
Hours / Week : 4/week
Credits : 4

Semester : IV / II
Class Code :
Subject Code : UABTB20 / UBBTB20
Total Hours : 60/2 = 30+30
Total Marks : 100 (40+60)

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1 st - 2 nd	4	1	General Introduction to Taxonomy - Nomenclature & classification. Morphological characters & Economic importance	Chalk & Talk	Book Material	Tests.
3 rd - 4 th	2+2	1	Family - Rubiaceae, Caesalpinaceae & Liliaceae - general characters & Economic importance	Chalk & Talk	"	Assignment
5 th - 6 th	2+2	2	Plant Anatomy - Introduction - Tissues - Meristematic & Permanent Tissues. Primary structure of Dicot stem & Root	Chalk & Talk & PPT	1	Quiz
7 th - 8 th	2+2	2	Primary structure of Dicot leaf & Monocot leaf. Primary structure of Monocot stem & Root.	Chalk & Talk & PPT	1	1
9 - 10 th w	2+2	4	Plant Physiology - Introduction - Absorption of water & Transpiration	Chalk & Talk	1	Tests
11 & 12 th	2+2	4	Photosynthesis - Introduction - Light reaction & Calvin Cycle	Chalk & Talk	1	Assignment

Week	No. of hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Valuation
13-14 th	2+2	4	Respiration - Glycolysis, Fermentation & Krebs's cycle	Chalk & Talk	Book Material	Tests
15 th	2+2	4	Electron Transport system - ATP formation Growth hormones - Auxins, Gibberellins applications	Chalk & Talk Method	"	"
RW 16/2/23						

LESSON PLAN

Academic Year : 2022-23
 Class : I Year - B.A, B.Sc, Bcom
 Subject : SBE
 Hours / Week : 2/Week
 Credits : 2

Semester : I/II
 Class Code : USBTB2 21
 Subject Code :
 Total Hours : 30
 Total Marks : 100 - (30+30+40) = 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1	2	1	Introduction to Horticulture - scope and importance - Requirsements - Soil & its types	PPT Chalk & Talk	Book Material	Tests
2-3	4	1	Soirgation & Nutrition - Cultivation of Economically important Plant - Rose & Mango	PPT Chalk & Talk	"	Quizy
4-5	4	2	Plant Propagation - types & Methods Cutting - types (stem, root, leaf & leaf bud) layering - types, Grafting & Budding	PPT & Chalk & Talk	"	Assignment
6-7	4	2x3	Role of Plant Growth regulator in Horticulture. Potted Plants & Hanging Basket.	PPT & Chalk & Talk	"	Test
8-9	4	3 3.2- 3.6.	Hydroponics, Bonsai - Training watering & Pruning, Flower arrangem-ent, Cut flowers, Flower decoration.	PPT Chalk & Talk	"	Assignment
10-11	4	4.1 4.6 4.3	Out door gardenig - Landscaping, Rockery & Arches, Terrace gardenig,	PPT Chalk & Talk	"	Assignment & Hands on Training.


Week	No. of Hrs.	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
12	2	4.4 to 4.5	Kitchen gardening - Plans & Principles Classification of fruits & Vegetables	PPT & Chalk & Talk	Book Material	Assignment
13	2	4.6 & 5.1 & 5.2	Lay out for a model College Garden - Fruits & Vegetables Preservation Preparation of Jam, Jelly	PPT & Chalk & Talk	Book Material	Assignment
14	2	5.3 & 5.4	Preparation of Pickle, ketchup use of Preservatives - chemicals, Sugar	PPT & Chalk & Talk	"	Tests
15	2	5.5 to 5.6	Brim for fruits Vegetable canning, bottling & labeling	PPT Book Material.	Book Material	Assignment

LESSON PLAN

Academic Year : 2022-23
 Class : II BSc. Zool
 Subject : PRACTICALS
 Hours / Week : 2/N
 Credits : -

Semester : II / IV
 Class Code :
 Subject Code : UABTC20 / UBBTC20
 Total Hours : 30hrs
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1	2	1	Taxonomy - Description & study of Specimens from <i>Caesalpiniaceae</i> & <i>Rubiaceae</i>			
2	2	1	<i>Asclepiadaceae</i> & <i>Liliaceae</i> (Specimens)			
3	2	1	<i>Amaranthaceae</i> - Specimen			
4-6	6	2	Sectioning of - Dicot stem & Monocot stem, Dicot root & Monocot root			
7-8	4	2	Sectioning of: Dicot leaf & Monocot leaf.			
9-10	4	3	Embryology - Slides of Mature Anther, Ovule - types & Dicot Embryo			

Week	Hrs	Unit	TOPICS TO BE COVERED	TEACHING METHODOLOGY	LEARNING MATERIAL	METHODS OF EVALUATION
11-12	4	4	Plant Physiology-Expr. DEMO	DEMO	Book	Record
13-15	6	5	Plant Tissue Culture & Propagation Methods CA-PRACT EXAM	DEMO-SPOTTERS	Book	Observation & TEST
	1					

Academic Year : 2022-2023
 Class : II B.Sc Zoology / I B.Sc Chemistry
 Subject : Allied Botany Paper I / optional Allied
 Hours / Week : 4
 Credits : 4

Semester : III / I
 Class Code :
 Subject Code : UABTA20 / UBBTA20
 Total Hours : 60 hrs
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
2	2	1	General Characters of algae, Structure and reproduction Life Cycle of Nostoc, Sargassum	PPT, Chalk and Board	Book Material	Assignment Test
2	2	1	Economic importance of algae General Characters of fungi Structure, reproduction - Yeast, Agaricus	PPT, Chalk and Board	Book Material	Test
3	6	1 2	Economic importance of Fungi, General Characters of Bacteria Virus	PPT, chalk and Board	Book Material	Test
3	6	2	Structure, Reproduction in E. coli, TMV, Bacteriophage, Corona Virus	PPT, Videos Chalk and Board	Book Material	Test, MCQ
3	6	3	General Characters of Bryophytes Structure and Life cycle of Funaria	PPT, Videos chalk and Board	Book Material	Test
3	6	3	General characters of Pteridophytes Lycopodium, Gymnosperms, Cycas.	Chalk and Board	Book Material	Test

2	3	4	Prokaryotic, Eukaryotic Cell Chloroplast, Mitochondria, Nucleus	Chalk and Board	Book Material	Test
2	3	4	Mitosis and Meiosis	PPT, Videos Chalk and Board	Book Material	Test
2	3	5	Symptoms, Causative Organism Control measures, Citrus Canker TMV, Tikka Disease	Chalk and Board	Book Material	Test

Academic Year : 2022-2023
 Class : III Yrs
 Subject : NME- EDIBLE MUSHROOM CULTIVATION
 Hours / Week : 3
 Credits : 4

Semester : V / VI
 Class Code :
 Subject Code : UGBTA20
 Total Hours : 45 Hrs
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1	3	1	Introduction to Mushrooms Biology of edible mushroom Agaricus, Calocybe sp.	PPT, Videos. Chalk and Board	Book Material	Test
2	3	1	Volvariella sp, Pleurotus sp, Scope of edible mushroom cultivation in India	PPT, Videos	Book Material	Test
3, 4	6	2	Medicinal and nutritional value of Mushrooms, Nutrient Profile of Mushroom - Protein,	PPT, Videos	Book Material	Test
5, 6	6	2	amino acids, Caloric value, Carbohydrates, fats, vitamins, minerals Medicinal properties, Disease Cured and prevented	PPT, Videos	Book Material	Test
7, 8	6	3	Poisonous Mushroom, Type of edible mushrooms available in India, Infrastructure, substrates, Polythene bag.	PPT, Videos	Book Material	Test
9, 10	6	3	Preparation of spawn, Substrate preparation, Mushroom bed preparation crop management, Factors influencing mushroom cultivation.	PPT, Videos	Book Material	Assignment

11, 12	6	4	Short term storage, Long term storage, Food preparation, Mushrooms recipes, Beverages	PPT	Book Material	Test
13	3	4	Dietary supplements, plans and procedure.	Video presentation	Book Material	Video presentation Test
14	3	5	Role of TIC and DIC in promoting edible mushroom cultivation.	PPT	Book Material	Test
15	3	5	Research Centres - National level and regional level, Cost benefit ratio, Export value Economics of a small scale model	Chalk and Board	Book Material	Test

Academic Year : 2022-23

Class : I Yrs

Subject : SBE - Herbal Therapy and Cosmetology

Hours / Week : 2

Credits : 2

Semester : I / II

Class Code :

Subject Code : USBTA120 / USBTA220

Total Hours : 30 hrs

Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1,2	3	1	Herbs - Definition, division distribution, Elementary knowledge of herbs.	PPT, Videos	Book Material	PPT
3	3	1	Importance of medicinal plants. Role - Aegle, Ficus, Curcuma, Sesamum.	PPT	Book Material	
4,5	3	2	AYUSH, Therapeutic Values of Naturopathy	PPT	Book Material	
6	3	2	Solanum trilobatum Aegle marmelos, Vitex, Eclipta, Azadirachta	Book Material	Book Material	
7,8	3	3	Herbal care for facial skin, Face pack for dry, oily and normal skin.	Book Material	Book Material	
9	3	3	Herbal remedy for skin disorders - Pimple, acne, boils, blackheads etc.		Book Material	

10, 11	3	4	Herbal care for hair Formulation of hair oil	PPT, Videos	Book Material	Test
12	3	4	Formulation of hair tonics dandruff, premature graying hair loss.	PPT	Book Material	Assignment
13, 14	3	5	Herbal Cosmetics, Herbal shampoo, tooth paste, herbal soap	PPT	Book Material	Test
15	3	5	Role of herbs in Skin Care - Tulasi, Aloe vera Hair Care - Henna, Coconut	PPT	Book Material	Test
18/10/22						

Academic Year : 2022-23
 Class : III B.A Eng - A
 Subject : Value Education
 Hours / Week :
 Credits :

Semester : V, VI
 Class Code :
 Subject Code : UVEDA15
 Total Hours :
 Total Marks :

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1, 2	2	15	Sexuality - Gift or Danger ?	Videos	Young and Happy - Book	Debat
3, 4	2	16	Marriage - Bliss or Burden ?	Chalk and Board	Book	Discussion
5, 6	2	17	Family - Where we belong	chalk and Board	Book	Group Discussion
7, 8	2	18	Women and Health - The True Wealth.	Chalk and Board	Book	Group Discussion

Academic Year : 2022-23
 Class : II Zoology / I Chemistry
 Subject : Allied Practical / optional Allied Practical
 Hours / Week : 2
 Credits : 2

Semester : III / I.
 Class Code :
 Subject Code : UABTC20 / UBBTC20
 Total Hours : 30 hrs
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1, 2, 3	6		Algae, Fungi, Bryophytes		specimen sectioning	
4, 5, 6	6		pteridophytes, Gymnosperms		specimen sectioning	
7, 8, 9	6		Ecology, Cytology		spotters.	
10, 11, 12	6		Plant Diseases		Spotters	
13, 14, 15	6		Sectioning		Specimen	

Academic Year : 2022 - 2023
 Class : II B.Sc Zoology | I. B.Sc Chemistry
 Subject : Allied Botany | II | Optional Allied - II
 Hours / Week :
 Credits :

Semester : IV, II
 Class Code :
 Subject Code : UABTB20 / UBBTB20
 Total Hours : 4
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1	3	I	Taxonomy Bentham and Hooker's System of Classification, Nomenclature	PPT, Chalk and Board	Book Material	Assignment Test
2	3	I	Study of Character and Economic importance of the family <i>Caesalpinaceae</i>	PPT, Chalk and Board	Book Material	Assignment Test
2	3	I	<i>Rubiaceae</i> , <i>Asclepiadaceae</i>	PPT, Chalk Board	Book Material	Test
3	3	I	<i>Amaranthaceae</i> , <i>Liliaceae</i>	PPT, Chalk Board	Book Material	Test
4	3	II	Plant Anatomy Tissues - Meristematic and Permanent tissue	PPT, Videos Chalk Board	Book Material	Test
5	3	II	Primary structure of Dicot stem, Monocot stem	PPT, Videos Chalk, Board	Book Material	Test

6	3	II	Dicot root and Monocot root	PPT, Videos Chalk and Board	Book Material	Test
6, 7	3	II	Dicot leaf and Monocot leaf.	Videos, Chalk and Board	Book Material	Test
7, 9, 8	12	III	Embryology - Mature Anther, Ovule, Types, Embryo Sac, Partheno Pollen grains, dicot embryo, ^{campy}	PPT, Videos. Chalk and Board.	Book Material	Test
9, 10, 11	6	IV	Plant Physiology. Absorption of H_2O , Transpiration	Chalk and Board	Book Material	Test
11, 12.	6	IV	Photosynthesis, Respiration. Electron Transport System Growth Hormones.	Chalk and Board	Book Material	Test
13, 14	6	V	Plant Propagation Methods. Tissue Culture, Application	Chalk and Board	Book Material	Test
14, 15	6	V	Vegetative Propagation, Cutting, Layering, Grafting, Terrace Garden, Kitchen garden	Chalk and Board.	Book Material	Test

Academic Year : 2022-23
 Class : III B.A Eng. A
 Subject : Value Education
 Hours / Week :
 Credits :

Semester : VI
 Class Code :
 Subject Code : UVEDA15
 Total Hours :
 Total Marks :

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1,2,3	3	19	Women's Rights - What you need to fight for.	Chalk and Board	Young and Happy - Book	Discussion
4,5,6	3	20	Happiness - How to find it	Chalk and Board	Book	Group Discussion
7, 8, 9	3	21	Faith, Religion and Spirituality - Meaning of life.	Chalk and Board	Book	Discussion

Academic Year : 2022-23
 Class : III B.A Eng. A
 Subject : Value Education
 Hours / Week :
 Credits :

Semester : VI
 Class Code :
 Subject Code : UVEDA15
 Total Hours :
 Total Marks :

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1,2,3	3	19	Women's Rights - What you need to fight for.	Chalk and Board	Young and Happy - Book	Discussion
4,5,6	3	20	Happiness - How to find it	Chalk and Board	Book	Group Discussion
7, 8, 9	3	21	Faith, Religion and Spirituality - Meaning of Life.	Chalk and Board	Book	Discussion

LESSON PLAN

Academic Year : 2022-23

Class :

Subject :

Hours / Week :

Credits :

Semester :

Class Code :

Subject Code :

Total Hours :

Total Marks :

: IV / II

:

: UABTC20 / UIBBTC20

: 30 hrs

: 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
1, 2, 3	6		Taxonomy, Caesalpiniaaceae, Rubiaceae, Asclepiadaceae.	Specimen plant Description	College Botany. - Book.	
4, 5	4		Amaranthaceae, Liliaceae.	Specimen plant Description	College Botany. Practical Book	
6, 7	4		Anatomy of dicot stem root, leaf.	Sectioning.	"	
8, 9, 10	6		Anatomy of monocot stem, root, leaf.	Sectioning	"	
11, 12, 13	6		Physiology Experiment	Set up	"	
14, 15	4		Tissue Culture.	spotter.	"	