



"Dissemination of Education for Knowledge, Science and Culture."
- Shikshanmaharshi Dr. Babuji Salunkhe



SHRI SWAMI VIVEKANAND SHIKSHAN SANSTHA'S
VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

2130, 'E' Ward, Tarabai Park,
Tal. Karveer, Dist. Kolhapur - 416 003.
Affiliated to Shivaji University, Kolhapur (M.S.)

NAAC Reaccredited : "A" (CGPA - 3.24 in 3rd Cycle)
College with Potential Excellence by U.G.C., New Delhi
"Star College" by D.B.T. Govt. of India
ISO 9001 : 2015

Ph. : 0231-2658612 | Fax : 0231-2658840 | Resl.: 0231-2653962 | Website : www.vivekanandcollege.ac.in | E-mail : info@vivekanandcollege.org

Founder
Dr. Babuji Salunkhe
D. Lit.

President
Hon. Chandrakant Dada Patil
Higher and Technical Education Minister, Maharashtra

Chairman
Prin. Abhaykumar Salunkhe
M.A.

Secretary
Prin. Mrs. Shubhangi Gawade
M. Sc., B. Ed.

Principal
Dr. R. R. Kumbhar
M. Sc., M. Phil., Ph. D.

Department of Botany

Annual Teaching Plan

2024-2025

Annual Teaching Plan (2024-2025)

Department of Botany





"Dissemination of Education for Knowledge, Science and Culture."
- Shikshanmaharshi Dr. Bapuji Salunkhe



SHRI SWAMI VIVEKANAND SHIKSHAN SANSTHA'S

VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

2130, 'E' Ward, Tarabal Park,
Tal. Karveer, Dist. Kolhapur - 416 003.
Affiliated to Shivaji University, Kolhapur (M.S.)

NAAC Reaccredited : "A" (CGPA - 3.24 in 3rd Cycle)
College with Potential Excellence by U.G.C., New Delhi
"Star College" by D.B.T. Govt. of India
ISO 9001 : 2015

Ph. : 0231-2658612 Fax : 0231-2658840 Resl. : 0231-2653962 Website : www.vivekanandcollege.ac.in E-mail : info@vivekanandcollege.org

Founder
Dr. Bapuji Salunkhe
D. Lit.

President
Hon. Chandrakant Dada Patil
Higher and Technical Education Minister, Maharashtra

Chairman
Prin. Abhaykumar Salunkhe
M.A.

Secretary
Prin. Mrs. Shubhangi Gawade
M. Sc., B. Ed.

Principal
Dr. R. R. Kumbhar
M. Sc., M. Phil., Ph. D.

Department of Botany

Annual Teaching Plan

2024-2025

INDEX

Sr. No.	Name of Faculty	Page No.
1.	Dr. B. T. Dangat	01-08
2.	Dr. A. R. Kasarkar	09-16
3.	Dr. S. D. Patil	17-22
4.	Dr. A. R. Alvikar	23-30
5.	Dr. P. D. Patil	31-41
6.	Dr. M. N. Desai	42-51
7.	Dr. S. S. Wadkar	52-60
8.	Miss. P. B. Shelar	61-63
9.	Dr. P. P. Jadhav	64-67
10.	Miss. A. A. Bogare	68-72
11.	Mrs. P. A. Talekar	73-78
12.	Miss. S. V. Khorate	79-82


Head
Department of Botany

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Annual Teaching Plan (2024-2025)




Principal
PRINCIPAL
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Department of Botany

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Bhaurav Tukaram Dangat**

Programme: **B. Sc. III**

Semester: **V**

Subject: **Botany**

Course Title: "Biochemistry and Stress Physiology & Plants Systematics and Paleobotany"

Month: July			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II:	Phylogeny of Angiosperms, The general account of origin of Angiosperms (with reference to Gnetalean theory)
04	04	08	Unit II: System of Classification.	
Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit II: System of Classification.	Classification system of Takhtajan, Brief reference of Angiosperm Phylogeny Group (APG-III) classification (2009).
04	04	05		
Month: September			Module/Unit:	Sub-units planned
04	04	08	Unit II: System of Classification. Unit IV: Paleobotany.	Ranks of IUCN and methods of Conservation. General account types of fossils, Geological time scale.
Month: October			Module/Unit:	Sub-units planned
04	--	04	Unit IV: Paleobotany	Study of following form genera with reference to systematic position, external morphology and affinities – Lyginopteris and Enigmocarpon 4c: Applications of Paleobotany- Role of microfossils in oil and coal exploration.

Name and Signature of HoD

DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)



PRINCIPAL
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Bhaurav Tukaram Dangat**

Programme: **B. Sc. I**

Semester: **I**

Subject: **Botany**

Course Title: **“Plant Morphology”**

Month: August			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit I: General organization of plant body:	Root system – Introduction, types and modification of Shoot system - Introduction and modification of stem
04	04	08		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit I: General organization of plant body:	Leaf – Introduction, Types- Simple and Complex, Phyllotaxy, Leaf venation, Modification
04	04	08		
Month: October			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit II: Study of Inflorescence	Definition and characters, types of inflorescence and significance of inflorescence.
05	04	09		

Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)



PRINCIPAL
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2023-2024**

Name of the teacher: **Dr. Bhaurav Tukaram Dangat**

Programme: **B. Sc. II**

Semester: **III**

Subject: **Botany (Minor)**

Course Title: **“MIN03BOT32: “Plant Taxonomy”**

Month: July			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit-2: Botanical Nomenclature	Principles and rules (ICN), Salient features of International Code of Botanical Nomenclature (ICBN),
04	04	08		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit-2: Botanical Nomenclature	Rules and regulations of Binomial nomenclature System, Systems of Classification-Natural, Artificial and Phylogenetic
04	04	08		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit-2: Botanical Nomenclature	Bentham and Hooter's system of Classification (Up to series).
04	04	08		

Name and Signature of HoD

 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)




 PRINCIPAL
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Bhaurav Tukaram Dangat**

Programme: **B. Sc. II**

Semester: **III**

Subject: **Botany (Major)**

Course Title: **“DSC03BOT32: “Diversity of Phanerogams”**

Month: July			Module/Unit:	Sub-units Planned
Lectures	Practical's	Total	Unit- 3: Angiosperms	Introduction, Habit and Habitat diversity, Methods of reproduction
04	04	08		
Month: August			Module/Unit:	Sub-units Planned
Lectures	Practical's	Total	Unit- 3: Angiosperms	Evolutionary history, Taxonomic hierarchy, Bentham and Hooker System of Classification (Merit and Demerit),
04	04	08		
Month: September			Module/Unit:	Sub-units Planned
Lectures	Practical's	Total	Unit- 3: Angiosperms	Difference between Dicot and Monocot plant,
04	04	08		
Month: October			Module/Unit:	Sub-units Planned
Lectures	Practical's	Total	Unit- 3: Angiosperms	Study of Sunflower and Maize root and stem.
02	-	02		

Name and Signature of HoD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)




PRINCIPAL
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Bhaurav Tukaram Dangat**

Programme: **B. Sc. I**

Semester: **I**

Subject: **Botany**

Course Title: **“Plant Morphology”**

Month: August			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit I: General organization of plant body:	Root system – Introduction, types and modification of Shoot system - Introduction and modification of stem
04	04	08		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit I: General organization of plant body:	Leaf – Introduction, Types- Simple and Complex, Phyllotaxy, Leaf venation, Modification
04	04	08		
Month: October			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit II: Study of Inflorescence	Definition and characters, types of inflorescence and significance of inflorescence.
05	04	09		


Name and Signature of HoD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)




PRINCIPAL
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Bhaurav Tukaram Dangat**

Programme: **B. Sc. III**

Semester: **VI**

Subject: **Botany**

Course Title: "Genetics and Plant Breeding & Biostatistics, Economic Botany and Ethno botany"

Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section I: Genetics and Plant Breeding	4a: Introduction and objectives, Plant genetic resources, Centers of origin and Domestication of crop plants
04	05	09		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit IV: Plant Breeding.	4b: Methods of crop improvements. Methods of Breeding.
04	05	09		
Month: February			Module/Unit:	Sub-units planned
04	05	09	Unit IV: Plant Breeding.	Selection methods for self-pollinated, cross pollinated and vegetative propagated plants.
Month: March			Module/Unit:	Sub-units planned
04	05	09	Unit IV: Plant Breeding.	Mutation breeding

B. Dangat
 Name and Signature of HoD
HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)



P. Kes
 Principal
PRINCIPAL
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: ~~2023-2024~~ **2024-2025**

Name of the teacher: **Dr. Bhaurav Tukaram Dangat**

Programme: **B. Sc. II**

Semester: **IV**

Subject: **Botany (Minor)**

Course Title: **MIN03BOT41: Diversity of flowering plant**

Month: January			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit- 3: Angiosperms	Introduction, Habit and Habitat diversity, Methods of reproduction.
04	04	08		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit- 3: Angiosperms	Evolutionary history, Taxonomic hierarchy, Bentham and Hooker System of Classification (Merit and Demerit).
04	04	08		
Month: March			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit- 3: Angiosperms	Difference between Dicot and Monocot plant, Study of Sunflower and Maize root and stem.
04	04	08		

Name and Signature of HoD

Bhaurav Dangat
HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)



P. Kesri
PRINCIPAL
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)

Department of Botany

Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Bhaurav Tukaram Dangat**

Programme: **B. Sc. I**

Semester: **II**

Subject: **Botany**

Course Title: **DSC-III: 2DSC03BOT21: Reproductive Botany**

Month: January			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit-4: Endosperm and Embryo:	Introduction, Development of endosperm, Types of endosperms
04	04	08		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit-4: Endosperm and Embryo:	Embryogeny. Structure of dicot and monocot embryo.
04	04	08		
Month: March			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Unit-4: Endosperm and Embryo:	Seed formation, Polyembryony.
04	04	08		

Name and Signature of HoD

**DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)**



**PRINCIPAL
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)**

Vivekanand College, Kolhapur. (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Abhijeet Rajaram Kasarkar**

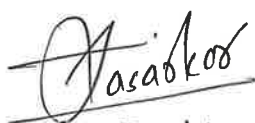
Programme: **B. Sc. I**

Semester: **I**


Subject: **Botany**

Course Title: **“Plant Morphology”**

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit III: Study of Flower	3a. Definition and parts of a typical flower 3b. Symmetry and insertion of floral whorls.
04	00	04		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit III: Study of Flower Practical I	3c. Calyx and Corolla 3d. Perianth - types
04	04	08		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit III: Study of Flower Practica I	3e. Androecium- parts and types 3f. Gynoecium –parts, arrangement and types of placntation.
04	04	08		
Month: October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit IV: Study of Fruit Practica I	4a. Introduction and types with one example each.
04	04	08		


 (Dr. A. R. Kasarkar)
 Name and Signature of Teacher




 Name and Signature of HoD
 (Dr. B. T. Dangat)
HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur. (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Abhijeet Rajaram Kasarkar**

Programme: **B. Sc. II**

Semester: **III**

Subject: **Botany (DSC03BOT32)**

Course Title: “ **Diversity of Phanerogams**”

Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit I: Phanerogams Practical I	1. Introduction, Distinguishing characters of Gymnosperms and Angiosperms.
04	02	06		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit IV: Taxonomic Importance Practical I	4. Morphology, Anatomy, Chemotaxonomy and Palynology. Cytotaxonomy, Chemotaxonomy, Numerical Taxonomy.
04	04	08		
Month: October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit IV: Taxonomic Importance Practical I	4. Molecular taxonomy and DNA barcoding of plants. Herbaria, Herbarium technique and Digital herbaria.
03	03	06		

(Signature)

(Dr. A. R. Kasarkar)
Name and Signature of Teacher



Name and Signature of HoD

(Signature)
(Dr. B.T. Dangle)

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur. (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Abhijeet Rajaram Kasarkar**

Programme: **B. Sc. II**

Semester: **III**

Subject: **Botany (MIN03BOT32)**

Course Title: **“Plant Taxonomy”**

Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit IV: Taxonomic Literature Practical I	4. Flora, Manuals, Monographs, eflora, Revisions, Journals.
04	02	06		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit IV: Taxonomic Literature Practical I	4. Periodicals, Reference Books, Research paper, Websites and Catalogues.
04	04	08		
Month: October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit IV: Taxonomic Literature Practical I	4. Plant Families : Malvaceae and Amaryllidaceae
03	03	06		

(Signature)

(Dr. A. R. Kasarkar)
Name and Signature of Teacher



(Signature)

Name and Signature of HoD

(Dr. B. T. Dangate)

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur. (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Abhijeet Rajaram Kasarkar**

Programme: **B. Sc. III**

Semester: **V**

Subject: **Botany**

Course Title: **“ Plant Pathology and Biofertiizers” and “Plant Systematics and Paleobotany”**

Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section : II Unit III: Plant Families	3a. Study of plant families : Anacardiaceae, Fabaceae ,Apiaceae, Rubiaceae
04	04	08		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit III: Plant Families Unit IV : Biofertilizer	3a. Study of plant families : Acanthaceae, Euphorbiaceae and Poaceae 4a. Microbes in Agriculture
04	04	08		
Month: October			Module/Unit:	Sub-units planned
04	04	08	Unit IV : Biofertilizer	4b. Organic Farming
			Practical II	

(Signature)

(Dr. A. R. Kasarkar)
Name and Signature of Teacher



(Signature)

Name and Signature of HoD

(Dr. B. T. Dangal)

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Abhijeet Rajaram Kasarkar**

Programme: **B. Sc. I** Semester: **II**

Subject: **Botany**

Course Title: **DSC03BOT21: "Reproductive Botany" &**
DSC03BOT22: "Diversity and Conservation of plants"

Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit II: Study of Microsporogenesis Practical : II	Study of microsporangium, Study of Anther (Structure and Dehiscence)
04	05	09		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit II: Study of Microsporogenesis Practical - II	Study of microsporogenesis, study of pollen grain, study of male gametophyte development
04	04	08		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit II: Domains of Life Practical - II	Study of three domains of life = Archaea, Bacteria and Eukarya
04	04	08		
Month: March			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit II: Domains of Life Practical - II	Study of three domains of life – Archaea, Bacteria and Eukarya
03	02	05		



Name and Signature of Teacher

(Dr. Abhijeet R. Kasarkar)





Name and Signature of HOD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Abhijeet Rajaram Kasarkar**

Programme: **B. Sc. II**

Semester: **IV**

Subject: **Botany**

Course Title: **DSC03BOT41 "Resource Botany" & DSC03BOT42 "Industrial Botany"**

Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit III: Extraction of sugar from sugar cane DSC - Practical	Critical study of the steps involved, problems faced by the sugar industry in India.
02	02	04		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit III: Extraction of sugar from sugar cane DSC - Practical	By products of sugar industry, Distillation of alcohol and other products with special reference to distilleries in Maharashtra.
05	04	09		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit IV: Bio- fuel technology DSC - Practical	Introduction and advantages, Concept of Bio-fuel and its need.
04	04	08		
Month: March			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit IV: Bio- fuel technology DSC - Practical	Plants used for Bio-fuel production, Biodiesel production from castor.
04	02	06		

Dr. A. R. Kasarkar

Name and Signature of Teacher
(**Dr. A. R. Kasarkar**)



B. Jangal

Name and Signature of HOD
HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Abhijeet Rajaram Kasarkar**

Programme: **B. Sc. II**

Semester: **IV**

Subject: **Botany**

Course Title: **MIN03BOT41 "Diversity of flowering plant"**

Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit IV: Taxonomic Importance	Morphology, Anatomy, Chemotaxonomy
02	00	02		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit IV: Taxonomic Importance	Palynology, Brief introduction to Cytotaxonomy, Chemotaxonomy, Numerical taxonomy
05	00	05		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit IV: Taxonomic Importance	Molecular taxonomy and DNA Barcoding of plants.
04	00	04		
Month: March			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit IV: Taxonomic Importance	Herbaria, Herbarium technique and Digital Herbaria.
04	00	04		

Dr. A. R. Kasarkar

Name and Signature of Teacher

(Dr. A. R. Kasarkar)

Dr. J. J. Jangale
HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)



Vivekanand College, Kolhapur (An Empowered Autonomous Institute)
 Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Abhijeet Rajaram Kasarkar**

Programme: **B. Sc. III**

Semester: **VI**

Subject: **Botany**

Course Title: **DSE 7 F2 Section II: "Horticulture, Forestry and Herbal Technology"**

Month: November			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Gardening and Ornamental Plants Practical : II	2a.Introduction, Definition 2a.Objectives, Types of Gardening
03	03	06		
Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Gardening and Ornamental Plants Practical : II	2a. Types of Gardening, Importance and Landscape garden
05	04	09		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Gardening and Ornamental Plants Practical : II	2b.Ornamental plants: Herbs, Shrubs, Trees, Indoor plants.
03	03	06		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Gardening and Ornamental Plants Practical : II	2b.Study of Lawn and Climber
04	04	08		

Name and Signature of Teacher

(Dr. A. R. Kasarkar)



Name and Signature of HOD

DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Sarika Deepak Patil.**

Programme: **B. Sc. I**

Semester: **I**

Subject: **Botany**

Course Title: "Indian Knowledge System" IKS: IKS03GEC11

Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-1: Introduction to Ayurveda	1a. Ayurvedic medicinal system 1b. Principles of Ayurveda (Vata, Pitta, Kapha)
03	00	03		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-1: Introduction to Ayurveda.	1c. Ayurvedic therapies 1d. Unani system of medicine 1e. Siddha system of medicine
04	00	04		
Month: October			Module/Unit:	Sub-units planned
03	00	03	Unit-1: Introduction to Ayurveda.	1f. Future of herbal drugs 1g. Study of medicinal plants- Punarnava, Vasaka, Shatavar, Brahmi and Arjuna
	--			


 (Dr. Sarika D. Patil.)

Name and Signature of Teacher




 Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Sarika Deepak Patil.**

Programme: **B. Sc. I**

Semester: **I**

Subject: **Botany**

Course Title: "DSC BOT- PR-I : 2DSC03BOT29: DSC"

Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practicals -I	1) Study of Microscope and its parts. 2) Study of Nostoc. 3) Study of Mucor
--	02	--		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practicals -I	4) Study of Moss. 5) Study of Pteris. 6) Study of Cycas. 7) Study of Hibiscus.
--	04	--		
Month: October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practicals -I	8) Study of different types of tissue – Simple and Complex. 9) Study of types of seed – Dicot and Monocot.
--	04	--		

(Signature)

(Dr. Sarika D. Patil.)

Name and Signature of Teacher



(Signature)

Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
 Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Dr. Sarika Deepak Patil.

Programme: B. Sc. II

Semester: III

Subject: Botany (Minor)

Course Title: "MIN03BOT31: Diversity in non-flowering plant"

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit -3: Bryophyta:	Introduction, Distribution in India, Range of Thallus organization,
02	05	07		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit -3: Bryophyta	Methods of reproduction Outline classification according to Parihar (1965),
03	06	09		
Month: September			Module/Unit:	Sub-units planned
03	06	09	Unit -3: Bryophyta	Study of example with reference to occurrence, plant body and life cycle of <i>Riccia</i> and <i>Anthoceros</i> .


 (Dr. Sarika D. Patil.)
 Name and Signature of Teacher




 Name and Signature of HoD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

20

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Sarika Deepak Patil.**

Programme: **B. Sc. II**

Semester: **III**

Subject: **Botany (Major)**

Course Title: **"DSC03BOT31: Diversity of Cryptogams"**

Month: July			Module/Unit:	Sub-units Planned
Lectures	Practicals	Total	Unit -3: Bryophyta	Introduction, Distribution in India, Range of Thallus organization,
02	00	02		
Month: August			Module/Unit:	Sub-units Planned
Lectures	Practicals	Total	Unit -3: Bryophyta	Methods of reproduction, Outline classification according to Parihar (1965),
03	00	03		
Month: September			Module/Unit:	Sub-units Planned
03	00	03	Unit -3: Bryophyta	Study of example with reference to occurrence, plant body and life cycle of <i>Riccia</i> and <i>Anthoceros</i> .

S. Patil

(Dr. Sarika D. Patil)

Name and Signature of Teacher



Sangal

Name and Signature of HoD

DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

2

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Sarika Deepak Patil**

Programme: **B. Sc. III**

Semester: **V**

Subject: **Botany**

Course Title: "Paper - V "Biochemistry and Stress Physiology & Plants Systematics and Pale botany" (DSE – 1007 E3) Section I: Biochemistry and Stress Physiology"

Month: July			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit:1 Plant Biochemistry.- Carbohydrate metabolism and Practical: I (DSE7E1) Section: I Section: II Cytology and Research Techniques in Life Sciences Microbiology, Plant Pathology and Bio fertilizers	1a:Introduction and classification of Carbohydrates 1b: Properties of Monosaccharide,
02	00	07		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit:1 Plant Biochemistry.- Carbohydrate metabolism and Practical: I (DSE7E1) Section: I Section: II Cytology and Research Techniques in Life Sciences Microbiology, Plant Pathology and Bio fertilizers	Oligosaccharides, Polysaccharides. 1c: Significance of Carbohydrate Protein metabolism.
05	04	10		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit:1 Plant Biochemistry- Carbohydrate metabolism and Practical: I (DSE7E1) Section: I Section: II Cytology and Research Techniques in Life Sciences Microbiology, Plant Pathology and Bio fertilizers	1d:Introduction, properties and characters of amino acids
06	04	12		



Month: October			Module/Unit:	Sub-units planned
03	06	09	Unit:1 Plant Biochemistry- Carbohydrate metabolism and Practical: I (DSE7E1) Section: I Section: II Cytology and Research Techniques in Life Sciences Microbiology, Plant Pathology and Bio fertilizers	1e:Protein-structure and classification 1f:Protein synthesis

(Dr. Sarika D. Patil.)

Name and Signature of Teacher



Name and Signature of HOD
HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Dr. Annapurna Ram Alvikar

Programme: B. Sc. III

Semester: V

Subject: Botany

Course Title: "Plant Biochemistry and Stress Physiology"

Month : July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper: DSE 7 E2 Section I : Unit 3 – Stress Physiology	3a: Introduction and Defining plant stress, Water stress
02	--	02		
Month : August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper: DSE 7 E2 Section I : Unit 3 – Stress Physiology	3b: Temperature stress, Salinity stress 3c: Stress sensing mechanism
05	--	05		
Month : September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper: DSE 7 E2 Section I : Unit 4 – Senescence and Aging Paper: DSE 7 E2 Section II : Unit 1 – Importance of Plant Systematics	4a: Introduction, Patterns of senescence 4b: Physical changes during senescence. 4c: Control of senescence 1a. Introduction to systematics
06	--	06		
Month : October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper: DSE 7 E2 Section II : Unit 1 – Importance of Plant Systematics	1a: Evidences from Palenology, Cytology and Phytochemistry and Molecular data
04	--	04		

(Signature)

Name and Signature of Teacher
(Dr. Annapurna. R. Alvikar)



(Signature)

Name and Signature of HoD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

2

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Annapurna Ram Alvikar**

Programme: **B. Sc. II (Major)**

Semester: **III**

Subject: **Botany**

Course Title: **"Diversity of Cryptogams"**

Month : July			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
02	00	02	DSC03BOT31 Unit 4 : Pteridophytes	4a. Introduction, Distribution in India
Month : August			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
04	00	04	DSC03BOT31 Unit 4 : Pteridophytes	4b. Methods of reproduction, Outline of classification according to Smith, Occurance , Plant body and life cycle of <i>Selaginella</i>
Month : September			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
04	00	04	DSC03BOT31 Unit 4 : Pteridophytes DSC03BOT32 "Diversity of Phanerogams" Unit 4 : Taxonomic Importance	Occurance , Plant body and life cycle of <i>Azolla</i> Heterospory. Molecular taxonomy and DNA Barcoding of plants.
Month : October			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
04	00	04	DSC03BOT32 "Diversity of Phanerogams" Unit 4 : Taxonomic Importance	Herbarium technique and Digital herbaria.


 Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)




 Name and Signature of HoD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

25

Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
 Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Annapurna R. Alvikar**

Programme: **B. Sc. II (Minor)**

Subject: **Botany**

Semester: **III**

Course Title: **"Diversity in Non- flowering plant"**

Month : July			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
02	00	02	MIN03BOT31 Unit 4 : Pteridophytes	4a. Introduction, Distribution in India
Month : August			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
04	02	06	MIN03BOT31 Unit 4 : Pteridophytes	Methods of reproduction, Outline of classification according to Smith, Occurance , Plant body of <i>Selaginella</i>
Month : September			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
04	04	08	MIN03BOT31 Unit 4 : Pteridophytes	life cycle of <i>Selaginella</i> . Occurance , Plant body and life cycle of <i>Azolla</i>
Month : October			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
04	04	08	MIN03BOT31 Unit 4 : Pteridophytes	Occurance , Plant body and life cycle of <i>Azolla</i> . Heterospory


 Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)




 Name and Signature of HoD
HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Annapurna Ram Alvikar**

Programme: **B. Sc. I**

Semester: **I**

Subject: **Botany**

Course Title: **Practical's**

Month : July			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
--	02	02	--	--
Month : August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	--	--
Month : September			Module/Unit:	Sub-units planned
--	04	04	--	--
Month : October			Module/Unit:	Sub-units planned
--	04	04	--	--


 Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)




 Name and Signature of HoD
 HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Annapurna Ram Alvikar**

Programme: **B. Sc I**

Semester: **II**

Subject: **Botany**

Course Title: **Practical's**

Month : December			Module/Unit:	Sub-units planned
Lectures	Practical's	Total		
--	03	03	--	--
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	--	--
Month : February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	--	--
Month : March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	--	--

Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)



Name and Signature of HoD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2023-2024**

Name of the teacher: **Dr. Annapurna Ram Alvikar**

Programme: **B. Sc II Major**

Semester: **IV**

Subject: **Botany**

Course Title: **“Industrial Botany” (DSC03BOT42)**

Month : November			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Industrial Botany” Unit 3: Sources of Natural Dyes	Introduction, Sources of natural dyes in India
01	00	01		
Month : December			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Industrial Botany” Unit 3: Sources of Natural Dyes	Sources of natural dyes in India and their extraction methods
04	00	04		
Month : January			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Industrial Botany” Unit 3: Sources of Natural Dyes	Merits and limitations of plant based dyes.
04	00	04		
			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Industrial Botany” Unit 4: Importance of Seed Industry	Introduction, Importance of seed industry.
04	00	04		
Month : February			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Industrial Botany” Unit 4: Importance of Seed Industry	Seed production, Seed processing and Marketing
04	00	04		
Month : March			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Industrial Botany” Unit 4: Importance of Seed Industry	Major seed industries and corporation of India
03	00	03		

Name and Signature of Teacher
(Dr. Annapurna. R. Alvikar)



Name and Signature of HoD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
EMPOWERED AUTONOMOUS

Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
 Annual Teaching Plan

Academic Year: 2023-2024

Name of the teacher: **Dr. Annapurna Ram Alvikar**

Programme: **B. Sc II Minor**

Semester: **IV**

Subject: **Botany**

Course Title: **“Commercial Botany” (MIN03BOT42)**

Month : November			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Commercial Botany” Unit 3: Bryophyte and Pteridophytes	Introduction,
01	00	01		
Month : December			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Commercial Botany” Unit 3: Bryophyte and Pteridophytes	Potential member, Products, processing and application of Moss
04	00	04		
Month : January			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Commercial Botany” Unit 3: Bryophyte and Pteridophytes	Products, processing and application of <i>Marchantia</i> , Riccia Pteridophyte- Processing and application of Adiantus,
04	00	04		
Month : February			Module/Unit:	Sub-units planned
Lectures	Practical's	Total	Paper II-“ Commercial Botany” Unit 3: Bryophyte and Pteridophytes	Products, processing and application of Nephrolepis, Dryopteris, Polypodium, Lycopodium.
04	00	04		

Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)



Name and Signature of HoD
 HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Annapurna Ram Alvikar**

Programme: **B. Sc III**

Semester: **VI**

Subject: **Botany**

Course Title: **“Molecular Biology and Biotechnology and Horticulture, Forestry and Herbal Technology”**

Month : December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper: DSE 7 F1 Section I: Unit 1: Genetic Material	1a: Introduction, Nucleic Acids(DNA, RNA)
04	--	04		
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper: DSE 7 F1 Section I: Unit 1: Genetic Material	1b:Griffith's and Avery's trans formation experiment, Harshey-Chase bacteriophage experiment 1c:DNA structure and Types of DNA
04	--	04		
Month : February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper: DSE 7 F1 Section I: Unit 1: Genetic Material Paper: DSE 7 F2 Section II: Unit 1: Herbal Technology	1d: DNA replication 1e: Types of RNA 4a: Pharmacognosy – Introduction, Definition, Pharmacognosy techniques.
04	--	04		
Month : March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		4b: Phytochemicals: Alkaloids and Phenols 4c: Drug- Types and adulteration 4d: Scope of Pharmacognosy
02	--	02		

Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)



Name and Signature of HoD
 HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Priya Digambar Patil**

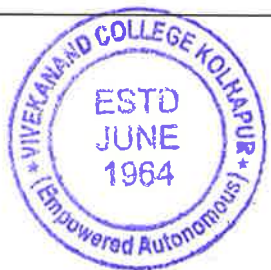
Programme: **B. Sc. III**

Semester: **V**

Subject: **Botany**

Course Title: **“Cytology and Research Techniques in life sciences and Microbiology, Plant Pathology and Biofertilizers”**

Month: July			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section I: Unit I1: Cell Organelles	Introduction, Eukaryotic cell components-Nucleus
02	--	05		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit I1: Cell Organelles	Eukaryotic cell components- Endoplasmic reticulum, Golgi complex Glyoxisomes, Peroxisomes and Lysosomes- Structure, composition and functions Specialized cell organelle- Ribosome
05	--	05		
Month: September			Module/Unit:	Sub-units planned
06	--	06	Section I: Unit 4: Radiation Biology	Radioactive isotopes, Introduction & examples Effect of radiations on Biological systems Beneficial effects of radiations



Month: October			Module/Unit:	Sub-units planned
03	--	03	Section I: Unit 4: Radiation Biology	Autoradiography Technique Geiger-Muller Experiment / Liquid Scintillation Counter Precautionary measures

Priya D. Patil

Name and Signature of Teacher

(Dr. Priya D. Patil)



D. Jangal

Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2023-2024**

Name of the teacher: **Dr. Priya Digambar Patil**

Programme: **B. Sc. II**

Semester: **III**

Subject: **Botany (Major)**

Course Title: **“DSC03BOT31: Diversity of Cryptogams”**

Month: July			Module/Unit:	Sub-units Planned
Lectures	Practicals	Total	Unit I: Algae	Cryptogams: Introduction, General Characters Algae: Introduction
03	-	03		
Month: August			Module/Unit:	Sub-units Planned
Lectures	Practicals	Total	Unit I: Algae	Range of Thallus organization Modes of reproduction Classification of Algae (G. M. Smith)
05	-	05		
Month: September			Module/Unit:	Sub-units Planned
05	-	05	Unit I: Algae	Study of example with reference to occurrence, plant body and life cycle of <i>Spirogyra</i> and <i>Sargassum</i> Economic importance of Algae
Month: October			Module/Unit:	Sub-units Planned
02	-	02	Unit: I Gymnosperms	<i>Pinus</i> : Occurrence, habitat, vegetative structure, reproduction and Life cycle

Name and Signature of Teacher
 (Dr. Priya D. Patil)



Name and Signature of HoD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2023-2024**

Name of the teacher: **Dr. Priya Digambar Patil**

Programme: **B. Sc. II**

Semester: **III**

Subject: **Botany (Minor)**

Course Title: **“MIN03BOT31: Diversity in non-flowering plant”**

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section II: Unit I: Algae	Cryptogams: Introduction, General Characters Algae: Introduction
03	04	07		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit I: Algae	Range of Thallus organization Modes of reproduction Classification of Algae (G. M. Smith)
05	06	11		
Month: September			Module/Unit:	Sub-units planned
05	06	11	Unit I: Algae	Study of example with reference to occurrence, plant body and life cycle of <i>Spirogyra</i> and <i>Sargassum</i> Economic importance of Algae

Name and Signature of Teacher

(Dr. Priya D. Patil)



Name and Signature of HoD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Priya Digambar Patil**

Programme: **B. Sc. I**

Semester: **I**

Subject: **Botany**

Course Title: **“Basics in Botany”**

Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit II: General outline of plant kingdom	Study of characters of plant kingdom
03	04	07		Study of classification of plant kingdom
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit II: General outline of plant kingdom	Study of five divisions with respect to characters and economic importance
04	06	10		
Month: October			Module/Unit:	Sub-units planned
05	06	11	Unit IV: Organization of higher plant body	Plant organs (Root, Stem and Leaf)
	--			Development of plant body Internal organization
				Study of tissue systems- Meristematic tissue, simple and complex tissue

Name and Signature of Teacher

(Dr. Priya D. Patil)



Name and Signature of HoD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)

Department of Botany

Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Dr. Priya Digambar Patil

Programme: B. Sc. I

Semester: I

Subject: Botany

Course Title: "OEC03LFS11: Herbal Cosmetics-I"

Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	--	--
--	02	02		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	05	05		
Month: October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04		

Priya D. Patil

Name and Signature of Teacher

(Dr. Priya D. Patil)



D. Jangal

Name and Signature of HoD

DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Priya Digambar Patil**

Programme: **B. Sc. III**

Semester: **VI**

Subject: **Botany**

Course Title: **“Molecular Biology and Biotechnology & Horticulture, Forestry and Herbal Technology”**

Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section I: Unit III: Genetic Engineering	Introduction, Methods of gene transfer: <i>Agrobacterium</i> mediated, Direct gene transfer by Electroporation, Microinjection, Microprojectile bombardment
04	--	00		
Month: January			Module/Unit	Sub-units planned
Lectures	Practical	Total	Unit III: Genetic Engineering	Transgenic plants (Bt cotton and Golden rice), Applications of genetic transformation. Blotting Techniques: Northern, Southern and DNA Fingerprinting
05	--	05		
Month: February			Module/Unit	Sub-units planned
04	--	04	Section I: Unit 4: Plant Tissue Culture	Principle and Totipotency, Components of culture media, Sterilization Techniques, Techniques in Tissue culture (Callus culture and cell suspension), Organogenesis

Priya D. Patil
 (Dr. Priya D. Patil)
 Name and Signature of Teacher



Priya D. Patil
 Name and Signature of HoD
 HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)
 14.1.25

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Priya Digambar Patil**

Programme: **B. Sc. II**

Semester: **III**

Subject: **Botany (Minor)**

Course Title: **“MIN03BOT41: Diversity of Flowering Plants” and
 “MIN03BOT42: Commercial Botany”**

Month: December			Module/Unit	Sub-units Planned
Lectures	Practicals	Total	Unit 2: Gymnosperms	Introduction, Distribution of Gymnosperms
02	-	02		
Month: January			Module/Unit	Sub-units Planned
Lectures	Practicals	Total	Unit 2: Gymnosperms	Methods of reproduction Outline of classification system according to Sporne (1965) Study of example with reference to occurrence, plant body and life cycle of <i>Pinus</i>
04	04	08		
Month: February			Module/Unit	Sub-units Planned
04	03	07	Unit 2: Gymnosperms Unit 4: Higher Plants	Study of example with reference to occurrence, plant body and life cycle of <i>Gnetum</i> Introduction, Potential member, Products, Processing Applications of organisms (Future Prospects) Gymnosperms: <i>Cycas, Pinus</i>



Month: March			Module/Unit	Sub-units Planned
04	04	08	Unit 4: Higher Plants	Potential member, Products, Processing Applications of organisms (Future Prospects) Gymnosperms: <i>Gingko, Taxus</i> Angiosperms: <i>Aswahagandha, Ashoka, Plumbago, Costus</i>

Priyank

(Dr. Priya D. Patil)
Name and Signature of Teacher



Angal
14.1.25

Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Priya Digambar Patil**

Programme: **B. Sc. I**


Semester: **II**

Subject: **Botany**

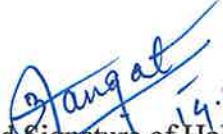
Course Title: **“DSC03BOT21: Reproductive Botany” and**

“DSC03BOT22: Diversity and Conservation of Plants”

Month: December			Module/Unit	Sub-units planned
Lectures	Practicals	Total	Unit 2: Megasporogenesis	Study of ovule, Types of ovules Study of megasporogenesis
03	02	04		
Month: January			Module/Unit	Sub-units planned
Lectures	Practicals	Total	Unit 2: Megasporogenesis	Study of typical embryo sac, Study of types of embryo sac: Monosporic (<i>Polygonus</i> type), Bisporic (<i>Allium</i> sp.) and Tetrasporic (<i>Peperomia</i> type)
05	05	10		
Month: February			Module/Unit	Sub-units planned
04	04	08	Unit 4: Conservation of Plant Diversity	Introduction and definition Types of conservation (<i>In situ</i> and <i>Ex situ</i>)
Month: March			Module/Unit	Sub-units planned
02	02	04	Unit 4: Conservation of Plant Diversity	Necessity of conservation


 (Dr. Priya D. Patil)
 Name and Signature of Teacher




 Name and Signature of HoD
HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Priya Digambar Patil**

Programme: **B. Sc. I**

Semester: **II**

Subject: **Botany**

Course Title: **“OEC03LFS21: Herbal Cosmetics-II”**

Month: January			Module/Unit	Sub-units planned
Lectures	Practicals	Total	--	--
--	05	05		
Month: February			Module/Unit	Sub-units planned
Lectures	Practicals	Total	--	--
--	04	04		
Month: March			Module/Unit	Sub-units planned
Lectures	Practicals	Total	--	--
--	03	03		

Priya D. Patil
 (Dr. Priya D. Patil)
 Name and Signature of Teacher

Digambar
 14.1.25
 Name and Signature of HoD
HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)



Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Mrunalini Nilesh Desai**

Programme: **B. Sc. III**

Semester: **VI**

Subject: **Botany**

Course Title: DSE 7 F1 Section II: **“Biostatistics, Economic Botany and Ethnobotany”**

Month: November			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit I: Biostatistics	1a.Introduction, Statistical terms 1b. Sampling- Sampling methods
03	--	03		
Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit I: Biostatistics Unit II: Economic Botany I	1c. Collection and Representation of data 2a. Study of economical important plant with ref. to origin, morphology, part used and uses. 2b. Cereals- Barley and Oats
05	--	05		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Economic Botany I	2c. Legumes- Soybean and Vigna
03	--	03		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Economic Botany I	2d. Vegetables- Spinach 2e. Spices- Clove and black pepper
04	--	04		



Name and Signature of Teacher

(Dr. Mrunalini N. Desai)



Name and Signature of HOD

DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)



Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Mrunalini Nilesh Desai**

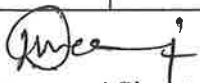
Programme: **B. Sc. II**

Semester: **IV**

Subject: **Botany**

Course Title: **DSC-VII: DSC03BOT41 "Resource Botany"**

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper I "Resource Botany" Unit II: Plant resources used in cosmetics, aromatics and pharmaceuticals.	Introduction and scope, Herbal preparations, Methods of Extraction-Maceration, Digestion, Decoction, aromatic waste, Extracts and tinctures.
02	--	02		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper I "Resource Botany" Unit II: Plant resources used in cosmetics, aromatics and pharmaceuticals.	Study of 1. Aloe, 2. Heena, 3. Lemmon grass, 4. Rose 5. Jasmine
05	--	05		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper I "Resource Botany" Unit II: Plant resources used in cosmetics, aromatics and pharmaceuticals.	6. Turmeric 7. Ginger 8. Neem 9. Holy basil 10. Amla
04	--	04		
Month: March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper II "Industrial Botany" Unit I: Physical characteristics of Indian woods.	Manufacturing of paper and board from raw plant material manufacturing of crude and high quality paper, recycled paper
05	--	05		


 Name and Signature of Teacher
 (Dr. Mrunalini N. Desai)




 Name and Signature of HOD
HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)
 15.1.25

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Mrunalini Nilesh Desai**

Programme: **B. Sc. II**

Semester: **IV**

Subject: **Botany**

Course Title: **MIN03BOT41 and MIN03BOT42**

Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04		
Month: February			Module/Unit:	Sub-units planned
--	03	03		
Month: March			Module/Unit:	Sub-units planned
--	04	04		

Dr. Mrunalini N. Desai

Name and Signature of Teacher
 (Dr. Mrunalini N. Desai)



Dr. Gangat
 15.1.25

Name and Signature of HOD
 HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Mrunalini Nilesh Desai**

Programme: **B. Sc. I** Semester: **II**

Subject: **Botany**

Course Title: **DSC BOT- PR-II: DSC03BOT19: DSC BOTANY LAB- 2**

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	02	02		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	05	05		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	04	04		
Month: March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	02	02		

Desai

Name and Signature of Teacher
 (Dr. Mrunalini N. Desai)



Jangal
 15.1.25

Name and Signature of HOD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Mrunalini Nilesh Desai**

Programme: **B. Sc. I** Semester: **II**

Subject: **Botany**

Course Title: **“Open Elective” Practical – II (“OECOLFS21: Herbal Cosmetics-II”)**

Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	Preparation of mehandi Study of extraction and application of natural dyes Study of preparation of organic soaps.
--	05	05		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	Study of preparation of dhoop and agarbati. Study of preparation of beverages. Best from Waste Study of preparation of wheat grass juice
--	04	04		
Month: March			Module/Unit:	Sub-units planned
--	03	03	Practical - II	DIY Study of preparation of Ayurvedic juices

(Signature)

Name and Signature of Teacher

(Dr. Mrunalini N. Desai)



(Signature)
Name and Signature of HOD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)

Department of Botany

Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Mrunalini Nilesh Desai**

Programme: **B. Sc. III**

Semester: **V**

Subject: **Botany**

Course Title: **“Cytology and Research Techniques in life sciences and Microbiology, Plant Pathology and Biofertilizers” (DSE7E1)**

Month: July			Module/Unit:	Sub-units planned
04	--	04	Section II: Unit III: Study of Plant Diseases	Introduction, Cereals: Rust of Wheat
Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit III: Study of Plant Diseases	Cash crop: Red Rot of Sugarcane Legume: Wilt of Gram Spices: Leaf spot of Black Peep
05	--	05		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit III: Study of Plant Diseases Unit II: Plant Pathology	Vegetable: Onion Smut Fruit: Apple Scab Classification of plant diseases based on pathogen, crops and symptoms.
05	--	05		
Month: October			Module/Unit:	Sub-units planned
04	--	04	Unit II: Plant Pathology	Study of mechanism of Infection in disease development, prevention and control of plant diseases. Role of Quarantine. Significance of Plant Pathology.



Name and Signature of Teacher

(Dr. Mrunalini N. Desai)




Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Dr. Mrunalini Nilesh Desai

Programme: B. Sc. II (Major)

Semester: III

Subject: Botany

Course Title: "Diversity of Cryptogams" (DSC-V: DSCBOT31)

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit II: Fungi	Introduction, Habit (Types of mycellium), Mode of Nutrition. Methods of reproduction.
04	--	04		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit II: Fungi	Outline of classification according to Alexopoulous and Mims (1979). Economic importance of Fungi.
04	--	04		
Month: September			Module/Unit:	Sub-units planned
04	--	04	Unit II: Fungi	<i>Rhizopus</i> - occurrence, plant body and life cycle <i>Puccinia</i> - occurrence, plant body and life cycle
Month: October			Module/Unit:	Sub-units planned
04		04	"Diversity of Phanerogams" (DSC-VI: DSCBOT32) Unit II:Gymnosperms	Introduction, Distribution in India, Methods of reproduction. Outline of classification according to Sporne(1965)



Name and Signature of Teacher

(Dr. Mrunalini Desai)




Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: ~~2024~~-2025

Name of the teacher: **Dr. Mrunalini Nilesh Desai**

Programme: **B. Sc. II (Minor)**

Semester: **III**

Subject: **Botany** Course Title: "**Diversity in non flowering plants**"(DSC-VI: DSCBOT32)

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit II: Fungi	Introduction, Habit (Types of mycellium), Mode of Nutrition. Methods of reproduction.
02	--	02		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit II: Fungi	Outline of classification according to Alexopoulous and Mims (1979).
03	02	05		
Month: September			Module/Unit:	Sub-units planned
04	04	08	Unit II: Fungi	<i>Rhizopus</i> - occurrence, plant body and life cycle
Month: October			Module/Unit:	Sub-units planned
04	04	08	Unit II: Fungi	<i>Puccinia</i> - occurrence, plant body and life cycle Economic importance of Fungi.


 Name and Signature of Teacher
 (Dr. Mrunalini N. Desai)




 Name and Signature of HoD
HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)

Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Mrunalini Nilesh Desai**

Programme: **B. Sc. II**

Semester: III

Subject: **Botany**

Course Title: **VSC-PR-II: "Bonsai and Terrarium" (VSC03BOT31)**

Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Practical-I	--
--	02	02		
Month: September			Module/Unit:	Sub-units planned
--	04	04	Practical-I	--
Month: October			Module/Unit:	Sub-units planned
--	04	04	Practical-I	--




Name and Signature of Teacher

(Dr. Mrunalini N. Desai)



Name and Signature of HoD


HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Autonomous)

Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Mrunalini Nilesh Desai**

Programme: **B. Sc. I**

Semester: **I**

Subject: **Botany**

Course Title: **“Basic in Botany” (DSC03BOT11)**

Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Practical-I	--
--	02	02		
Month: September			Module/Unit:	Sub-units planned
--	04	04	Practical-I	--
Month: October			Module/Unit:	Sub-units planned
--	04	04	Practical-I	--



Name and Signature of Teacher

(*Dr. Mrunalini Desai*)




Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Snehal Sanjay Wadkar**

Programme: **B. Sc. I**

Semester: **I**

Subject: **Botany**

Course Title: **“Basic in Botany” (DSC03BOT11)**

Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total		
--	02	02	Practical-I	--
Month: September			Module/Unit:	Sub-units planned
--	04	04	Practical-I	--
Month: October			Module/Unit:	Sub-units planned
--	04	04	Practical-I	--

Name and Signature of Teacher

(*Dr. Snehal S. Wadkar*)

Name and Signature of HoD

DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)



Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2023-2024**


Name of the teacher: **Dr. Snehal Sanjay Wadkar**


Programme: **B. Sc. II (Minor)**

Semester: **III**

Subject: **Botany** Course Title: **"Plant Taxonomy" (MIN 03BOT32)**

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit I: Introductory Taxonomy	Introduction, Importance of Taxonomy
02	--	02		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit I: Introductory Taxonomy	Functions of Taxonomy- Identification, Nomenclature, Classification, Ranks, Categories and Taxonomic groups.
03	02	05		
Month: September			Module/Unit:	Sub-units planned
04	04	08	Unit III: Tools for Taxonomic Studies	Herbarium- Introduction, Roles and Significance Botanical Gardens- Introduction, Role, Significance
Month: October			Module/Unit:	Sub-units planned
03	04	05	Unit III: Tools for Taxonomic Studies	Sir. J.C. Bose Botanical Garden, Calcutta, Kew Botanical Garden, Kew., Lead Botanical Garden, Shivaji University, Kolhapur.


Name and Signature of Teacher
(Dr. Snehal S. Wadkar)


Name and Signature of HoD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(AUTONOMOUS)



Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Snehal Sanjay Wadkar**

Programme: **B. Sc. II**

Semester: III

Subject: **Botany**

Course Title: **VSC-PR-II: "Bonsai and Terrarium" (VSC03BOT31)**

Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total		
--	02	02	Practical-I	--
Month: September			Module/Unit:	Sub-units planned
--	04	04	Practical-I	--
Month: October			Module/Unit:	Sub-units planned
--	04	04	Practical-I	--

Name and Signature of Teacher

(*Dr. Snehal S. Wadkar*)

Name and Signature of HoD


 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (AUTONOMOUS)



Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: 2023-2024

Name of the teacher: **Dr. Snehal Sanjay Wadkar**

Programme: **B. Sc. III**

Semester: **V**

Subject: **Botany**

Course Title: **“Cytology and Research Techniques in life sciences and Microbiology, Plant Pathology and Biofertilizers” (DSE7E1)**

“Plant Biochemistry and Stress Physiology & Plants Systematics and Paleobotany” (DSE7E1)

Month: July			Module/Unit:	Sub-units planned
04	--	04	Section I: Unit III: Analytical Techniques in Plant Sciences	Principals of Microscopy - Light Microscopy, Fluorescence and Electron(TEM and SEM) Microscopy.
Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section I: Unit III: Analytical Techniques in Plant Sciences	Chromatography Principals-Paper Chromatography, TLC, HPLC
05	03	08		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section- I Unit II: Lipid Metabolism and Fatty acid metabolism	Introduction and Classification of Lipids, Properties of Fatty acids (Saturated Fatty acids, Unsaturated Fatty acids)
05	04	08		
Month: October			Module/Unit:	Sub-units planned
05	03	08	Section- I Unit II: Lipid Metabolism and Fatty acid metabolism	Beta oxidation, Gluconeogenesis and role in mobilization of fatty acids during germination, Significance of lipids.

Name and Signature of Teacher
 (Dr. Snehal S. Wadkar)



Name and Signature of HoD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous Institute)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Snehal Sanjay Wadkar**

Programme: **B. Sc. I** Semester: **II**

Subject: **Botany**

Course Title: **“DSC-III: 2DSC03BOT21: Reproductive Botany”**

“DSC-IV: 2DSC03BOT22: Diversity and Conservation of Plants”

“DSC BOT- PR-II: DSC03BOT19: DSC BOTANY LAB- 2”

Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-3 : Pollination and Fertilization	Introduction and definition, Types of pollination (self, cross and its sub types) Agents of pollination
05	04	09		
			Practical – II	--
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-3 : Pollination and Fertilization	Double fertilization : Definition and mechanism
04	04	08		
			Unit-1: Study of classification systems	Introduction and definition, Ranks of classification.
			Practical – II	--
Month: March			Module/Unit:	Sub-units planned
04	03	07	Unit-1: Study of classification systems	Study of five kingdom classification system (R. H. Whittaker). Study of general characters of each kingdom.
			Practical – II	--

Name and Signature of Teacher

Dr. Snehal S. Wadkar



Name and Signature of HOD

DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous Institute)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Snehal Sanjay Wadkar**

Programme: **B. Sc. II** Semester: **IV**

Subject: **Botany**

Course Title: **DSC –VII: DSC03BOT41: Resource Botany**

Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-3: Floricultural Industry	Introduction to floriculture Cultivation practices, Harvesting and marketing of Rose
03	--	03		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-3: Floricultural Industry	Cultivation practices, Harvesting and marketing of Rose Cultivation practices, Harvesting and marketing of Gerbera
04	--	04		
Month: March			Module/Unit:	Sub-units planned
--	--	--	--	--

Name and Signature of Teacher

(Dr. Snehal S. Wadkar)

Name and Signature of HOD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 EMPOWERED AUTONOMOUS



Vivekanand College, Kolhapur (Empowered Autonomous Institute)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: **Dr. Snehal Sanjay Wadkar**

Programme: **B. Sc. II** Semester: **IV**

Subject: **Botany (VSC)**

Course Title: **Herbal Technology**

Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	--	--
--	03	03		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04		
Month: March			Module/Unit:	Sub-units planned
--	04	04	--	--
Month: April			Module/Unit:	Sub-units planned
	04	04	--	--


 Name and Signature of Teacher
 (Dr. Snehal S. Wadkar)




 Name and Signature of HOD
 HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous Institute)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Snehal Sanjay Wadkar**

Programme: **B. Sc. II**

Semester: **IV**

Subject: **Botany**

Course Title: **MIN- PR-IV: MIN03BOT49: Based on Paper MIN03BOT41 and MIN03BOT42**

Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04		
Month: February			Module/Unit:	Sub-units planned
--	03	03		
Month: March			Module/Unit:	Sub-units planned
--	04	04		

Name and Signature of Teacher

(Dr. Snehal S. Wadkar)

Name and Signature of HOD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)



Vivekanand College, Kolhapur (Empowered Autonomous Institute)
 Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Dr. Snehal Sanjay Wadkar**

Programme: **B. Sc. III**

Semester: **VI**

Subject: **Botany**

Course Title: DSE 7 F1 Section II: “**Biostatistics, Economic Botany and Ethnobotany**”

Month: November			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Economic Botany II	3a: Beverages-Tea and Coffee
03	03	06		
			Practical III	--
Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Economic Botany II	3b: Fiber Yielding Plants- Cotton and <i>Hibiscus</i> <i>canabinis</i> 3c: Oil yielding <i>Pongamia</i> <i>pinnata</i>
04	04	08		
			Practical III	--
Month: January			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Economic Botany II	3c: Oil yielding Sunflower 3d: Dye : <i>Lawsonia</i> and <i>Indigofera</i>
03	05	03		
			Practical III	--
Month: February			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Practical III	--
01	04	04		


 Name and Signature of Teacher
 (Dr. Snehal S. Wadkar)




 Name and Signature of Head
 HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

**Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan**

Academic Year: 2024-2025

Name of the teacher: Ms. Pradnya Baban Shelar

Programme: B. Sc. I

Semester: I

Subject: Botany

Course Title: "Basic in Botany" (DSC03BOT11)

Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit-I: Importance of Plant	<ul style="list-style-type: none"> ● Role of plants in human welfare (Direct and indirect), Role of plants in ecological services
02	--	02		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit-I: Importance of Plant	<ul style="list-style-type: none"> ● Evolutionary history of plants ● Study of Algae: <i>Nostoc</i>
04	02	06		
Month: September			Module/Unit:	Sub-units planned
04	04	08	Unit:II Study of following examples with reference to occurrence, plant body and life cycle	<ul style="list-style-type: none"> ● Study of Fungi: <i>Mucor</i> ● Study of Bryophyte: Moss
Month: October			Module/Unit:	Sub-units planned
04	04	08	Unit:II Study of following examples with reference to occurrence, plant body and life cycle	<ul style="list-style-type: none"> ● Study of Pteridophyte: <i>Pteris</i> ● Study of Gymnosperms: <i>Cycas</i>

Name and Signature of Teacher

(Ms. Pradnya B. Shelar)

Name and Signature of HoD

DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)



Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Ms. Pradnya Baban Shelar

Programme: B. Sc. II (Open Elective)

Semester: III

Subject: Botany

Course Title: OEC03LFA11: Life Science-I Herbal Cosmetics-I

Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical I	--
--	02	02		
Month: September			Practical I	--
Lectures	Practicals	Total		
--	04	04		
Month: October			Practical I	--
Lectures	Practicals	Total		
--	04	04		

Name and Signature of Teacher

(Ms. Pradnya B. Shelar)

Name and Signature of HoD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)



Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Ms. Pradnya Baban Shelar**

Programme: **B. Sc. III**

Semester: **V**

Subject: **Botany**

Course Title: **“Cytology and Research Techniques in life sciences and Microbiology, Plant Pathology and Biofertilizers” (DSE7E1)**

Month: July			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section: I Unit: I Cell as a unit of Life	<ul style="list-style-type: none"> ● The cell theory, Prokaryotic and Eukaryotic cells, Cell size and shape. ● Cell membrane and cell wall
04	--	04		
Month: August			Module/Unit:	Sub-units planned
04	04	08	Section: I Unit: I Cell as a unit of Life	<ul style="list-style-type: none"> ● Models of membrane structure. ● The functions of membranes ● Cell cycle
Month: September			Module/Unit:	Sub-units planned
05	04	09	Section: I Unit: I Cell as a unit of Life Section: II Unit: I Microbiology, Plant Pathology and Biofertilizers	<ul style="list-style-type: none"> ● Apoptosis ● Methods of microbiology
Month: October			Module/Unit:	Sub-units planned
05	04	09	Section: II Unit: I Microbiology, Plant Pathology and Biofertilizers	<ul style="list-style-type: none"> ● Micro-organisms in biological world ● Scope of microbes in Industry and Environment

Name and Signature of Teacher

Ms. Pradnya B. Shelar



Name and Signature of HoD

Pradnya B. Shelar
HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Botany

Academic Year: 2024-2025

Annual Teaching Plan

Name of the teacher: **Dr. Priyanka Pravin Jadhav**

Programme - **B. Sc. III**

Semester- **VI**

Subject: **Botany**

Course Title- **“Horticulture, Forestry and Herbal Technology Forestry”**

“Biostatistics, Economic Botany and Ethno botany”

Month - December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section : II (DSE 1007F2): Forestry	3a:Introduction, Forest types of India 3b:Wild life and Biosphere reserves 3c:Social and Agricultural Forestry
02	02	04		
Month – January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		3d:Forest research education and Training institutions 3e:Forest Acts 3f: Different Plant as a forest products.
04	04	08		
Month- February			Module/Unit:	Sub-units planned
			Section : II (DSE 1007F1): Ethnobotany	4a: Introduction, Concept and Scope 4b: Ethnobotanical studies with reference to data collection- Field work, Herbarium, Ancient literature, Archaeological findings, Sacred groves.
03	03	06		
Month- March			Module/Unit:	Sub-units planned
				4c: Role of ethnobotany in modern medicine- Aethiopia vasica, Tinospora cordifolia, Curcuma longa and Tribulus terrestris
04	03	07		

Name and Signature of Teacher

P. P. Jadhav
Dr. P. P. Jadhav



Name and Signature of HOD

P. Jadhav
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Botany

Academic Year: Year: 2024-2025

Annual Teaching Plan

Name of the teacher: **Dr. Priyanka Pravin Jadhav**

Programme: **B. Sc. II**

Semester- **IV**

Subject: **Botany (Major)**

Course Title: **DSC –VII: DSC03BOT41 “Resource Botany”**

DSC –VIII: DSC03BOT42 “Industrial Botany”

Month – December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	DSC –VII: SC03BOT41: Resource Botany Unit-1: Forest as Potential Resource	Introduction and Scope, Major forest produce
02		02		
Month – January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	DSC–VIII: DSC03BOT42 “Industrial Botany” Unit-1: Physical characteristics of Indian Woods	their uses- Gum, Resin, Tannin and Pigments. Methods of seasoning and chemical treatment of specialized
04		04		
Month- February			Module/Unit:	Sub-units planned
04		04		Industrial manufacturing of packing material and plywood, the Classification of plywoods according to their use.
Month- March			Module/Unit:	
04		04		Some important commercial woods - Dalbergia sp., Shorea robusta Tectona grandis, Cedrus deodara, Bamboo - the "Green Gold of India."

Name and Signature of Teacher

P.P. Jadhav
Dr. P. P. Jadhav



Name and Signature of HOD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Botany

Academic Year: Year: 2024-2025

Annual Teaching Plan

Name of the teacher: Dr. Priyanka Pravin Jadhav

Programme: B. Sc. II

Semester- IV

Subject: Botany (Minor)

Course Title: MIN-PR-IV:MIN03BOT49;Based on paper MIN03BOT41 AND MIN03BOT42

Month – December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
	02	02		
Month – January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
	04	04		
Month- February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
	04	04		
Month- March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
	03	03		

P. P. Jadhav

Name and Signature of Teacher

Dr. P. P. Jadhav



Jadhav

Name and Signature of HOD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Botany

Academic Year: 2024-2025

Annual Teaching Plan

Name of the teacher: **Dr. Priyanka Pravin Jadhav**

Programme: **B. Sc. I**

Semester- **II**

Subject: **Botany**

Course Title: **“DSC BOT-PR-II: DSC03BOT19;DSCBOT LAB-2”**

Month – December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
	04	04		
Month – January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
	03	03		
Month- February			Module/Unit:	Sub-units planned
	04	04		
Month- March			Module/Unit:	Sub-units planned
	03	03		

Name and Signature of Teacher

P.P. Jadhav
Dr. P. P. Jadhav



Name and Signature of HOD
Gangal
HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Mrs. Priya Ashish Talekar**

Programme: **B. Sc I**

Semester: **II**

Subject: **Botany**

Course Title: **PRACTICAL (Based on paper III and IV)**

Month : December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	---	
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	- ---	
Month : February			Module/Unit:	Sub-units planned
--	03	03	---	
Month : March			Module/Unit:	Sub-units planned
--	04	04	---	

Name and Signature of Teacher

(Mrs. Priya Ashish Talekar)



Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
Dr. B. I. Dangar
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Mrs. Priya Ashish Talekar**

Programme: **B. Sc II Major**

Semester: **IV**

Subject: **Botany**

Course Title: **VSC PRACTICAL Herbal
Technology**

Month : December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	---	
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	---	
Month : February			Module/Unit:	Sub-units planned
--	03	03	---	
Month : March			Module/Unit:	Sub-units planned
--	04	04	---	

Name and Signature of Teacher

(Mrs. Priya Ashish Talekar)



Name and Signature of HoD

DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Mrs. Priya Ashish Talekar

Programme: B. Sc II Minor

Semester: IV

Subject: Botany

Course Title: PRACTICAL

Month : December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	05	05	---	
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	05	05	- ---	
Month : February			Module/Unit:	Sub-units planned
	05	05	---	
Month : March			Module/Unit:	Sub-units planned
	05	05	---	

Name and Signature of Teacher

(Mrs. Priya Ashish Talekar)



Name and Signature of HoD

Dr. B. T. Dangat
HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Mrs. Priya Ashish Talekar**

Programme: **B. Sc III**

Semester: **VI**

Subject: **Botany**

Course Title: "Genetics and Plant Breeding & Biostatistics, Economic Botany and Ethnobotany"

Month : December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper: DSE 7 F1 Section I: Unit 1: Heredity	1a. Introduction Terminologies
04	04			
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper: DSE 7 F1 Section I: Unit 1: Heredity	Laws of Inheritance (Monohybrid and Dihybrid)
05	05			
Month : February			Module/Unit:	Sub-units planned
05	05		Paper: DSE 7 F1 Section I: Unit 1: Heredity Paper: DSE 7 F2 Section II: Unit 1: Biostatistics	1b. Multiple Allelism 1d. Measures of central Tendency – Mean, Mode, Median. 1e. Variances and standard deviation, Coefficient of variation.
Month : March			Module/Unit:	Sub-units planned
02	02		Section II: Unit 1: Biostatistics	1 f. Test of significance (T-Test), Chi-square test (X2test)

Name and Signature of Teacher
 (Mrs. Priya Ashish Talekar)



Name and Signature of Head
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Mrs. Priya Ashish Talekar**

Programme: **B. Sc III**

Semester: **VI**

Subject: **Botany**

Course Title: **PRACTICAL (Based on paper III and IV)**

Month : December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	05	05	---	
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	06	06	- ---	
Month : February			Module/Unit:	Sub-units planned
--	06	06	---	
Month : March			Module/Unit:	Sub-units planned
--	03	03	---	

Name and Signature of Teacher

Priya Talekar
 (Mrs. Priya Ashish Talekar)



Name and Signature of HoD

B. T. Dangat
 HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Ms. Bogare Aishwarya Anandarav**

Programme: **B. Sc. I** Semester: **II**

Subject: **Botany**

Course Title: **DSC BOT- PR-II: DSC03BOT19: DSC BOTANY LAB- 2**

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	02	02		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	05	05		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	04	04		
Month: March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	02	02		

Bogare

Name and Signature of Teacher

Ms. A. A. Bogare



Bogare

Name and Signature of HOD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Ms. Bogare Aishwarya Anandarav

Programme: B. Sc. I Semester: II

Subject: Botany

Course Title: "DSC 03BOT19" Practical – II ("DSC 03BOT19")

Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	Study of kingdom Protista with suitable example. Study the structure of Pollen grain.
--	02	02		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	Study of Dicot and Monocot Endosperm.
--	01	01		
Month: March			Module/Unit:	Sub-units planned
--	01	01	Practical - II	Study of different types of Ovules.

Bogare
 Name and Signature of Teacher

Ms. A. A. Bogare.



Sanjay
 Name and Signature of HOD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Botany

Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Ms. Bogare Aishwarya Anandarav** Programme: **B. Sc III**

Semester: **VI**

Subject: **Botany**

Course Title: **PRACTICAL I**

Month : December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	03	03	---	
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	---	
Month : February			Module/Unit:	Sub-units planned
--	05	05	---	
Month : March			Module/Unit:	Sub-units planned
--	03	03	---	

Bogare.
Name and Signature of Teacher

Ms. A. A. Bogare.



Dangal
Name and Signature of HoD

HEAD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher **Ms. Bogare Aishwarya Anandarav**

Programme: **B. Sc. III**

Semester: **VI**

Subject: **Botany**

Course Title: DSE 7 F1 Section I: **“Genetics and a Plant breeding”**

Month: November			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section I: Unit II: Linkage and Crossing Over	2a.Linkage concept and History. Types of Linkage
03	--	03		
Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Linkage and Crossing over	2b.Crossing over-concept and significance. Cytological proof of crossing over.
04	--	04		
Month: January			Module/Unit:	Sub-units planned
03	--	03	Section I: Unit II: Linkage and Crossing over Unit III: Extra –Chromosomal Genome	2c.Linkage maps. 3a.Introduction and organization of genome.
Month: February			Module/Unit:	Sub-units planned
03	--	03	Section I: Unit III: Extra –Chromosomal Genome	3b.Plastid inheritance. 3c.Mitochondrial inheritance

Bogare.
 Name and Signature of Teacher
Ms. A. A. Bogare.



Bogare
 Name and Signature of HOD
HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Ms. Bogare Aishwarya Anandarav

Programme: B. Sc. II

Semester: IV

Subject: Botany

Course Title: MIN-VII MIN03BOT41 "Diversity of Flowering plant"

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper I "Diversity of Flowering plant"	Introduction. Distinguishing characters of Gymnosperm and Angiosperm.
02	--	02	Unit I: Phanerogams	
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper I "Commercial Botany"	Introduction Potential fungi Products Processing and applications of fungi. 1. <i>Trichoderma</i> 2. <i>Metarhizium</i>
05	--	05	Unit II: Fungi	
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper I "Commercial Botany"	3. <i>Beauveria</i> 4. <i>Penicillium</i> 5. <i>Aspergillus</i>
04	--	04	Unit II: Fungi	
Month: March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Paper II "Commercial Botany"	6. <i>Yeast</i> 7. <i>Ganoderma</i> 8. <i>Agaricus</i>
05	--	05	Unit II: Fungi	

Bogare.
 Name and Signature of Teacher
 Ms. A. A. Bogare.



Bogare
 Name and signature of HOD
HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Ms. Bogare Aishwarya Anandarav

Programme: B. Sc. II

Semester: IV

Subject: Botany

Course Title: MIN03BOT41 and MIN03BOT42

Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	05	05		
Month: February			Module/Unit:	Sub-units planned
--	07	07		
Month: March			Module/Unit:	Sub-units planned
--	05	05		

Bogare
 Name and Signature of Teacher

Ms. A. A. Bogare



Jangal
 Name and Signature of HOD

HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: **2024-2025**

Name of the teacher: **Miss Shivani Khorate**

Programme: **B. Sc. I** Semester: **II**

Subject: **Botany**

Course Title: **DSC BOT- PR-II: DSC03BOT19: DSC BOTANY LAB- 2**

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	02	02		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	05	05		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	04	04		
Month: March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	--
--	02	02		

Name and Signature of Teacher

Shivani
Miss. Shivani Vijay Khorate



Name and Signature of HOD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

Gayal
 HEAD

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Miss Shivani Vijay Khorate

Programme: B. Sc. I Semester: II

Subject: Botany

Course Title: "Open Elective" Practical – II ("OECOLFS21: Herbal Cosmetics-II")

Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	Preparation of mehendi Study of extraction and application of natural dyes Study of preparation of organic soaps.
--	05	05		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Practical - II	Study of preparation of dhoop and agarbati. Study of preparation of beverages. Best from Waste Study of preparation of wheat grass juice
--	04	04		
Month: March			Module/Unit:	Sub-units planned
--	03	03	Practical - II	DIY Study of preparation of Ayurvedic juices

Name and Signature of Teacher

Miss. Shivani Vijay Khorate



Name and Signature of HOD
 HEAD
 DEPARTMENT OF BOTANY
 VIVEKANAND COLLEGE, KOLHAPUR
 (EMPOWERED AUTONOMOUS)

**Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan**

Academic Year: 2024-2025

Name of the teacher: Miss Shivani Vijay Khorate

Programme: B. Sc. II

Semester: IV

Subject: Botany

Course Title: MIN-PR-III "MIN03BOT49"

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	03	03	Practical IV	--
Month: January				
Lectures	Practicals	Total	Practical IV	--
--	04	04		
Month: February				
--	04	04	Practical IV	--
Month: March				
	02	02	Practical IV	--

Shivani

Name and Signature of Teacher

Miss. Shivani Vijay Khorate



Jyotsna
Name and Signature of HOD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2024-2025

Name of the teacher: Miss Shivani Vijay Khorate

Programme: B. Sc. III

Semester: VI

Subject: Botany

Course Title: DSE 7 F2 Section II: "Molecular Biology and Biotechnology and Horticulture, Forestry and Herbal Technology"

Month: November			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section I: Unit II: Recombinant DNA Technology	1a. Introduction 1b. Principle of Recombinant DNA Technology
03	03	06		
Month: December			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section I: Unit II: Recombinant DNA Technology	1c. Enzymes involved in recombinant DNA technology. 1d. Introduction of cloning vectors 1e. Plasmid, Bacteriophage
04	04	08		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section I: Unit II: Recombinant DNA Technology Unit IV: Plant Tissue Culture	1f. Cosmid 1g. PCR 4a. Anther culture
05	04	09		
Month: February			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section I: Unit IV: Plant Tissue Culture	4b. Embryo culture 4c. Application of plant tissue culture.
04	04	08		

Name and Signature of Teacher

Miss. Shivani Vijay Khorate



Name and Signature of HOD
DEPARTMENT OF BOTANY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)