

Arts, Science and Commerce College, Indapur, Dist. Pune
TEACHING AND EVALUATION PLAN

Name of the teacher: Prof Jamdade S.P	Year: 2022-23	Semester: I
Subject: Animal Diversity I	Paper: I	Class: F Y B Sc

Part I : Teaching Plan						Part II : Evaluation of Plan			
1 Sr. No.	2 Month	3 Week	4 No. of working days	5 No. of periods available	6 Topics to be taught	7 No. of periods engaged	8 Topics taught	9 Deviation in periods	10 Remark
1	Aug 2022	3 & 4	9	8	1. Principles of Classification: Taxonomy & Systematics 1.1 Taxonomy: Basic terminology and Introduction • Alpha, Beta and Gamma levels of taxonomy, Micro-taxonomy • Macro taxonomy: Phenetics (numerical taxonomy, Cladistics (Phylogenetic systematics), Evolutionary taxonomy (evolutionary systematics) • Classical taxonomy and experimental or neo taxonomy (biochemical taxonomy and Cytotaxonomy) • Significance of Taxonomy 1.2 Systematics: definition introduction	8	1. Principles of Classification: Taxonomy & Systematics 1.1 Taxonomy: Basic terminology and Introduction • Alpha, Beta and Gamma levels of taxonomy, Micro-taxonomy • Macro taxonomy: Phenetics (numerical taxonomy, Cladistics (Phylogenetic systematics), Evolutionary taxonomy (evolutionary systematics) • Classical taxonomy and experimental or neo taxonomy (biochemical taxonomy and Cytotaxonomy) • Significance of	Nil	---

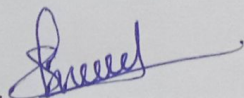
							Taxonomy 1.2 Systematics: definition introduction		
2	Sept 2022	1 & 2	12	8	<p>1.3 Linnaean system of classification (Six level classification: Phylum, class, order, family, genus, species) 1.4 Concept of Species: Biological & Evolutionary 1.5 Introduction to Binomial Nomenclature. 1.6 Introduction to Five kingdom system. 2. General Features of kingdom Animalia 2.1 General characters of Kingdom Animalia, Grades of organization 2.2 Symmetry. Kingdom Protista (Phylum: Protozoa) 3.1 Introduction to Phylum Protozoa 3.2 Salient features of Phylum Protozoa 3.3 Classification of Phylum Protozoa up to classes with two examples of each class (names only). Class Rhizopoda (e.g :Entamoeba histolytica, Arcella), Class Mastigophora (e.g: Euglena viridis, Trypanosoma gambiense), Class Ciliata (e.g Paramoecium caudatum, Opalina ranarum), Class Sporozoa (e.g Plasmodium vivax, Toxoplasma gondii) 3.4 Locomotion in Protozoa: Amoeboid, Ciliary and Flagellar with suitable examples 3.5 Type Study: Paramecium caudatum: Classification, Habit and Habitat, External morphology, Feeding and digestion, Excretion, Reproduction</p>	10	<p>1.3 Linnaean system of classification (Six level classification: Phylum, class, order, family, genus, species) 1.4 Concept of Species: Biological & Evolutionary 1.5 Introduction to Binomial Nomenclature. 1.6 Introduction to Five kingdom system. 2. General Features of kingdom Animalia 2.1 General characters of Kingdom Animalia, Grades of organization 2.2 Symmetry. Kingdom Protista (Phylum: Protozoa) 3.1 Introduction to Phylum Protozoa 3.2 Salient features of Phylum Protozoa up to classes with two examples of each class (names only). Class Rhizopoda (e.g :Entamoeba histolytica, Arcella), Class Mastigophora (e.g: Euglena viridis, Trypanosoma gambiense), Class Ciliata (e.g Paramoecium caudatum, Opalina ranarum), Class Sporozoa (e.g Plasmodium vivax, Toxoplasma gondii) 3.4 Locomotion in Protozoa: Amoeboid, Ciliary and Flagellar with suitable examples 3.5 Type Study: Paramecium caudatum: Classification, Habit and Habitat, External morphology, Feeding and digestion, Excretion, Reproduction</p>	Nil	---

3	Oct 2022	3 & 4	11	7	<p>3.6.1-Harmful Protozoa: Plasmodium vivax (malarial parasite), Entamoeba histolytica (Amoebic dysentery), Trypanosoma gambiense (Gambian sleeping sickness).</p> <p>3.6.2- Useful Protozoa: Trichonympha (07) CBCS: 2019-2020 F. Y. B. Sc. Zoology Savitribai Phule Pune University Page 8 4.</p> <p>Origin of Metazoa 4.1 Introduction Origin and importance of Metazoa</p>	8	<p>3.6.1-Harmful Protozoa: Plasmodium vivax (malarial parasite), Entamoeba histolytica (Amoebic dysentery), Trypanosoma gambiense (Gambian sleeping sickness). 3.6.2- Useful Protozoa: Trichonympha (07) CBCS: 2019-2020 F. Y. B. Sc. Zoology Savitribai Phule Pune University Page 8 4. Origin of Metazoa 4.1 Introduction Origin and importance of Metazoa</p>	1	Extra lecture was conducted
4	Oct 2022	1 & 2	11	8	<p>5. Phylum Porifera 5.1. Introduction to Phylum Porifera 5.2 Classification of Phylum Porifera up to classes with two examples of each class (names only, no description of specimens). Class Calcarea (e.g.: Leucosolenia, Sycon (Scypha) Class Hexactinellida (e.g: Euplectella (venus flower basket), Hyalonema (glass sponge)) Class Demospongiae (e.g: Chalina (Mermaid's gloves, Spongilla (fresh water sponge)) 5.3 Canal system in sponges: Ascon, Leucon and Rhagon type. 5.4 Skeleton in sponges: Spicules, its types: Microscleres & Megasccleres, Monoaxon – monactinal, diactinal, Amphidiscs, Triaxon, Polyaxon, Spongin fibres. 5.5 Regeneration in sponges. 5.6 Economic importance of Phylum Porifera. (06) 6. Phylum: Cnidaria 6.1 Introduction to Phylum Cnidaria 6.2 Salient features of Phylum Cnidaria 6.3 Classification of Phylum Cnidaria up to class</p>	8	<p>5. Phylum Porifera 5.1. Introduction to Phylum Porifera 5.2 Classification of Phylum Porifera up to classes with two examples of each class (names only, no description of specimens). Class Calcarea (e.g.: Leucosolenia, Sycon (Scypha) Class Hexactinellida (e.g: Euplectella (venus flower basket), Hyalonema (glass sponge)) Class Demospongiae (e.g: Chalina (Mermaid's gloves, Spongilla (fresh water sponge)) 5.3 Canal system in sponges: Ascon, Leucon and Rhagon type. 5.4 Skeleton in sponges: Spicules, its types: Microscleres & Megasccleres, Monoaxon – monactinal, diactinal, Amphidiscs, Triaxon, Polyaxon, Spongin fibres. 5.5 Regeneration in sponges. 5.6 Economic importance of Phylum Porifera. (06) 6. Phylum: Cnidaria 6.1 Introduction to Phylum Cnidaria 6.2</p>	Nil	--

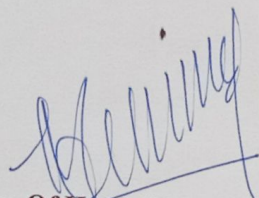
					level with given examples each class (names of examples only) Class Hydrozoa	Salient features of Phylum Cnidaria 6.3 Classification of Phylum Cnidaria up to class level with given examples each class (names of examples only) Class Hydrozoa	
5	Nov 2022	3 & 4	12	8	e.g.: Hydra, Physalia (Portuguese man of war) Class Scyphozoa e.g: Aurelia (Jelly fish), Leucernaria (trumpet shaped Jellyfish) Class Anthozoa: e.g; Metridium (Common sea anemone) 6.4 Polymorphism in Hydrozoa: Polyps & Medusa (polyp types: gastrozooids, dactylozooids, gonozooids) and functions 6.5 Economic importance of Cnidarians with reference to Corals and Coral reefs. 7. Phylum Platyhelminthes 7.1 Introduction to Phylum Platyhelminthes 7.2 Salient features of Phylum Platyhelminthes 7.3 Classification of Phylum Platyhelminthes up to classes with two examples each class (names of examples only). Class: Turbellaria (e.g: Dugesia, Bipallium) Class: Trematoda (e.g: Fasciola hepatica, Schistosoma haematobium) Class Cestoda: (Taenia solium (pork tape worm), Echinococcus granulosus (dog tapeworm) 7.4 Parasitic adaptations in Platyhelminthes: structural and physiological. 7.5 Economic importance of Platyhelminthes	e.g.: Hydra, Physalia (Portuguese man of war) Class Scyphozoa e.g: Aurelia (Jelly fish), Leucernaria (trumpet shaped Jellyfish) Class Anthozoa: e.g; Metridium (Common sea anemone) 6.4 Polymorphism in Hydrozoa: Polyps & Medusa (polyp types: gastrozooids, dactylozooids, gonozooids) and functions 6.5 Economic importance of Cnidarians with reference to Corals and Coral reefs. 7. Phylum Platyhelminthes 7.1 Introduction to Phylum Platyhelminthes 7.2 Salient features of Phylum Platyhelminthes 7.3 Classification of Phylum Platyhelminthes up to classes with two examples each class (names of examples only). Class: Turbellaria (e.g: Dugesia, Bipallium) Class: Trematoda (e.g: Fasciola hepatica, Schistosoma haematobium) Class Cestoda: (Taenia solium (pork tape worm), Echinococcus granulosus (dog tapeworm) 7.4 Parasitic adaptations in Platyhelminthes: structural and physiological. 7.5 Economic importance of Platyhelminthes	1

Extra
lecture
was
conducted on
sunday

- 1 The plan should be prepared in duplicate.
- 2 One copy of the plan should be submitted at the beginning of the term after filling up columns 1 to 6.
The second copy must be retained by the teacher and submitted at the end of the term. Part second of the plan i. e. columns 7 to 10 must be filled up progressively at the end of every week.



Signature Of Teacher



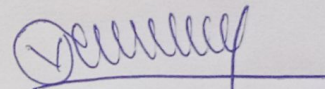
Signature Of Head Of Department

Dr. J. P. Sarwade

M.Sc., Ph.D., FZSI

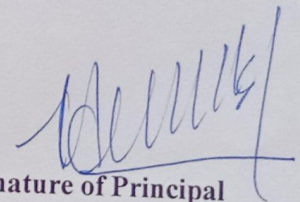
Head

Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106



Signature Of Faculty Incharge

Science Faculty
Arts, Science & Commerce
College, Indapur, Dist. Pune



Signature of Principal

PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE

Arts, Science and Commerce College, Indapur, Dist. Pune
TEACHING AND EVALUATION PLAN

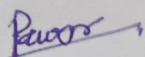
Name of the teacher: Prof.Pawar A.H.	Year: 2022-23	Semester: I
Subject: Animal Ecology	Paper: I	Class: F Y B Sc

Part I : Teaching Plan						Part II : Evaluation of Plan			
1 Sr. No.	2 Month	3 Week	4 No. of working days	5 No. of periods available	6 Topics to be taught	7 No. of periods engaged	8 Topics taught	9 Deviation in periods	10 Remark
1	Aug 2022	3 & 4	9	8	1. Introduction to Ecology 1.1 Concepts of Ecology, Environment, Population, Community, Ecosystem, Biosphere, Autecology and synecology. (02) 2. Ecosystem 2.1 Types of ecosystems: Aquatic (Freshwater, estuarine, Marine and terrestrial (Forest, Grassland and Desert) 2.2 Structure and Composition of Ecosystem (Abiotic components and biotic components.	8	1. Introduction to Ecology 1.1 Concepts of Ecology, Environment, Population, Community, Ecosystem, Biosphere, Autecology and synecology. (02) 2. Ecosystem 2.1 Types of ecosystems: Aquatic (Freshwater, estuarine, Marine and terrestrial (Forest, Grassland and Desert) 2.2 Structure and Composition of Ecosystem (Abiotic components and biotic components.	Nil	---
2	Sept 2022	1 & 2	12	8	. 2.3 Food chain: Detritus and grazing food chains, Food web, Energy flow through the ecosystem, Ecological pyramids: Number, Biomass, and Energy 2.4 concept of	10	. 2.3 Food chain: Detritus and grazing food chains, Food web, Energy flow through the ecosystem, Ecological pyramids: Number, Biomass, and	Nil	---

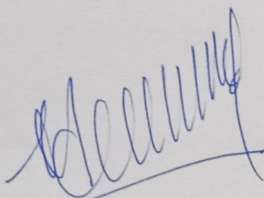
					Eutrophication in lakes and rivers. (08) 3 Population 3.1Characteristic of population: Density, Natality, Mortality, Fecundity tables, survivorship curves, age ratio, sex ratio, dispersal and dispersion..		Energy 2.4 concept of Eutrophication in lakes and rivers. (08) 3 Population 3.1Characteristic of population: Density, Natality, Mortality, Fecundity tables, survivorship curves, age ratio, sex ratio, dispersal and dispersion..		
*3	Oct 2022	3 & 4	11	7	3.2Exponential and logistic growth, 3.3 Population regulation – density-dependent and independent factors. Population interactions, Gause's Principle with laboratory and field interactions, 3.4 Quadrat, line and belt transect methods	8	3.2Exponential and logistic growth, 3.3 Population regulation – density- dependent and independent factors. Population interactions, Gause's Principle with laboratory and field interactions, 3.4 Quadrat, line and belt transect methods	Nil	---
4	Oct 2022	1 & 2	11	8	4. Community 4.1Community characteristics: species richness, dominance, diversity, abundance, vertical stratification, Eco tone and edge effect; Ecological succession with one example.	8	4. Community 4.1Community characteristics: species richness, dominance, diversity, abundance, vertical stratification, Eco tone and edge effect; Ecological succession with one example.	Nil	--
5	Nov 2022	3 & 4	12	8	5. Animal interactions 5.1Introduction to Animal interactions 5.2 Types of Animal interactions with at least to suitable examples of each 5.2.1-Competition: Interspecific and intraspecific (05) CBCS: 2019-2020 F. Y. B. Sc. Zoology Savitribai Phule Pune University Page 11 5.2.2- Beneficial Associations: Commensalism (remora fish on shark, Cattle egrets on livestock), Mutualism (Termite and Trichonympha, bees and flowers, cleaning symbiosis in fish by prawns. 5.3 Antagonistic associations: Parasitism	8	5. Animal interactions 5.1Introduction to Animal interactions 5.2 Types of Animal interactions with at least to suitable examples of each 5.2.1-Competition: Interspecific and intraspecific (05) CBCS: 2019-2020 F. Y. B. Sc. Zoology Savitribai Phule Pune University Page 11 5.2.2- Beneficial Associations: Commensalism (remora fish on shark, Cattle egrets on livestock), Mutualism (Termite and Trichonympha, bees and flowers,	1	Extra lecture was conducted on sunday

					(Ascaris and man, lice and humans), Prey predation (Lion and deer).		cleaning symbiosis in fish by prawns. 5.3 Antagonistic associations: Parasitism (Ascaris and man, lice and humans), Prey predation (Lion and deer).	
--	--	--	--	--	---	--	---	--

- 1 The plan should be prepared in duplicate.
- 2 One copy of the plan should be submitted at the beginning of the term after filling up columns 1 to 6.
The second copy must be retained by the teacher and submitted at the end of the term. Part second of the plan i. e. coumns 7 to 10 must be filled up progressively at the end of every week.

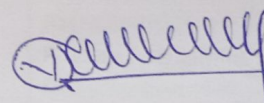


Signature Of Teacher



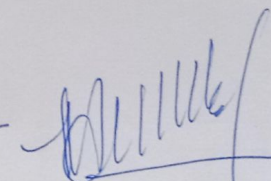
Signature Of Head Of Department

Dr. J. P. Sarwade
M.Sc., Ph.D., FZSI
Head
Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106



Signature Of Faculty Incharge

Science Faculty
Arts, Science & Commerce
College, Indapur, Dist. Pune



Signature of Principal

PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE

Arts, Science and Commerce College, Indapur, Dist. Pune
TEACHING AND EVALUATION PLAN

Name of the teacher: Prof Jamdade S.P

Year: 2022-23

Semester: II

Subject: Animal Diversity-II

Paper: I

Class: F Y B Sc

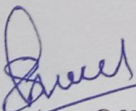
Part I : Teaching Plan						Part II : Evaluation of Plan			
1 Sr. No.	2 Month	3 Week	4 No. of working days	5 No. of periods available	6 Topics to be taught	7 No. of periods engaged	8 Topics taught	9 Deviation in periods	10 Remark
1	Nov 2022	3 & 4	9	8	1. Phylum Aschelminthes 1.1 Introduction to phylum Aschelminthes 1.2 Salient features of Phylum Aschelminthes 1.3 Classification of Phylum Aschelminthes (Class Nematoda only with two examples – Ascaris lumbricoides (common round worm), Wuchereria bancrofti (Elephantiasis)). 1.4 Economic importance of class Nematoda. (04) 2. Phylum Annelida 2.1 Introduction to Phylum Annelida 2.2 Salient features of Phylum Annelida	8	1. Phylum Aschelminthes 1.1 Introduction to phylum Aschelminthes 1.2 Salient features of Phylum Aschelminthes 1.3 Classification of Phylum Aschelminthes (Class Nematoda only with two examples – Ascaris lumbricoides (common round worm), Wuchereria bancrofti (Elephantiasis)). 1.4 Economic importance of class Nematoda. (04) 2. Phylum Annelida 2.1 Introduction to Phylum Annelida 2.2 Salient features of Phylum Annelida	Nil	---

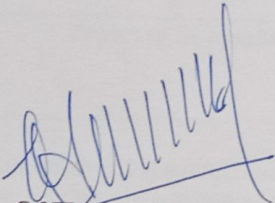
2	Dec2022	1 & 2	12	8	<p>2.3 Classification of Phylum Annelida up to classes with examples of following classes (names of examples only). Class Polychaeta (e.g: Nereis pelagica (neries/ sand worm, Aphrodita aculeata (=Aphrodite/ seamouse) Class Oligochaeta (e.g.: Pheritima posthuma (earthworm), Class Hirudinea (e.g: Hirudinaria granulosa common cattle leech)</p> <p>2.4 Economic importance of Annelida with reference to earthworms as friends of farmers and in their role in vermicomposting. (06)</p> <p>3. Phylum Arthropoda 3.1 Introduction to Phylum Arthropoda</p>	10	<p>2.3 Classification of Phylum Annelida up to classes with examples of following classes (names of examples only). Class Polychaeta (e.g: Nereis pelagica (neries/ sand worm, Aphrodita aculeata (=Aphrodite/ seamouse) Class Oligochaeta (e.g.: Pheritima posthuma (earthworm), Class Hirudinea (e.g: Hirudinaria granulosa common cattle leech)</p> <p>2.4 Economic importance of Annelida with reference to earthworms as friends of farmers and in their role in vermicomposting. (06)</p> <p>3. Phylum Arthropoda 3.1 Introduction to Phylum Arthropoda</p>	Nil	---
3	Jan2023	3 & 4	11	7	<p>3.2 Salient features of Phylum Arthropoda</p> <p>3.3 Classification of Phylum Arthropoda with specific classes and mentioned examples (names only)</p> <p>Class:Crustacea:Palaemon palaemon (Prawn) Brachyura spp. crabs) Class: Chilopoda: Scolopendra sp. (centipede) Class: Diplopoda: Julus sp. (millipede) Class Insecta: Periplaneta americana (American Cockroach), Anopheles stephensii (mosquito). Class: Arachnida- Spiders, Buthus sp (scorpion)</p> <p>3.4 mouth parts in insects: Mandibulate (cockroach), Piercing and sucking (female Anopheles mosquito), chewing and lapping type (honey bee)</p> <p>3.5 Economic importance of Arthropoda Useful Insects: Honey bee, Lac insect, Silkworm.</p>	8	<p>3.2 Salient features of Phylum Arthropoda</p> <p>3.3 Classification of Phylum Arthropoda with specific classes and mentioned examples (names only)</p> <p>Class:Crustacea:Palaemon palaemon (Prawn) Brachyura spp. crabs) Class: Chilopoda: Scolopendra sp. (centipede) Class: Diplopoda: Julus sp. (millipede) Class Insecta: Periplaneta americana (American Cockroach), Anopheles stephensii (mosquito). Class: Arachnida- Spiders, Buthus sp (scorpion)</p> <p>3.4 mouth parts in insects: Mandibulate (cockroach), Piercing and sucking (female Anopheles mosquito),</p>	1	Extra lecture was conducted

					Harmful insects: Female Anopheles mosquito, Red cotton bug, Rice weevil		chewing and lapping type (honey bee) 3.5 Economic importance of Arthropoda Useful Insects: Honey bee, Lac insect, Silkworm. Harmful insects: Female Anopheles mosquito, Red cotton bug, Rice weevil		
4	Feb 2023	1 & 2	11	8	4. Phylum Mollusca 4.1 Introduction to Phylum Mollusca 4.2 Salient features of Phylum Mollusca 4.3 Classification of Phylum Mollusca with specific classes and mentioned examples (names only) Class Gastropoda e.g Pila globosa (apple snail) Class Pelecypoda e.g Lamellidens marginalis (Bivalve) Class Polyplacophora e.g Chiton Class: Cephalopoda e.g: Octopus vulgaris (common octopus), Sepia officinalis (common Cuttle fish) 4.4 Economic importance of Mollusca	8	4. Phylum Mollusca 4.1 Introduction to Phylum Mollusca 4.2 Salient features of Phylum Mollusca 4.3 Classification of Phylum Mollusca with specific classes and mentioned examples (names only) Class Gastropoda e.g Pila globosa (apple snail) Class Pelecypoda e.g Lamellidens marginalis (Bivalve) Class Polyplacophora e.g Chiton Class: Cephalopoda e.g: Octopus vulgaris (common octopus), Sepia officinalis (common Cuttle fish) 4.4 Economic importance of Mollusca	Nil	--
5	March 2023	3 & 4	12	8	5. Study of Phylum Echinodermata 5.1 Introduction to Phylum Echinodermata. 5.2 Salient features of Phylum Echinodermata. 5.3 Classification of Phylum Echinodermata with specific classes and mentioned examples (names only) • Class Asterozoa (Asterias rubens sea stars or starfish) • Class: Holothuroidea. Holothuria sp. sea cucumbers) • Class: Echinozoa (Echinus esculentus common sea urchins) • Class: Crinozoa (sea lilies or feather stars) 5.4 Type study: Asterias rubens (Sea Star): Classification, Habit Habitat, External	8	5. Study of Phylum Echinodermata 5.1 Introduction to Phylum Echinodermata 5.2 Salient features of Phylum Echinodermata. 5.3 Classification of Phylum Echinodermata with specific classes and mentioned examples (names only) • Class Asterozoa (Asterias rubens sea stars or starfish) • Class: Holothuroidea. Holothuria sp. sea cucumbers) • Class: Echinozoa (Echinus esculentus common sea urchins) • Class: Crinozoa (sea lilies	1	Extra lecture was conducted on Sunday

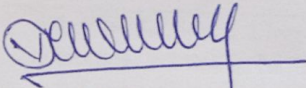
					Morphology, Digestive system, Water vascular System and autotomy and regeneration 5.5 Pedicellaria in Echinodermata: straight, crossed, valvate, tridactylous, globigerous. 5.6 Economic importance of Echinodermata.	or feather stars) 5.4 Type study: Asterias rubens (Sea Star): Classification, Habit Habitat, External Morphology, Digestive system, Water vascular System and autotomy and regeneration 5.5 Pedicellaria in Echinodermata: straight, crossed, valvate, tridactylous, globigerous. 5.6 Economic importance of Echinodermata.	
--	--	--	--	--	---	---	--

- 1 The plan should be prepared in duplicate.
- 2 One copy of the plan should be submitted at the beginning of the term after filling up columns 1 to 6. The second copy must be retained by the teacher and submitted at the end of the term. Part second of the plan i. e. columns 7 to 10 must be filled up progressively at the end of every week.

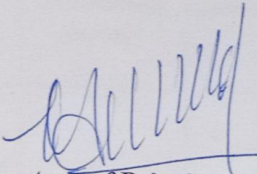

Signature Of Teacher


Signature Of Head Of Department

Dr. J. P. Sarwade
M.Sc., Ph.D., FZSI
Head
Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106


Signature Of Faculty Incharge

Incharge
Science Faculty
Arts, Science & Commerce
College, Indapur, Dist. Pune


Signature of Principal
PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE

Arts, Science and Commerce College, Indapur, Dist. Pune
TEACHING AND EVALUATION PLAN

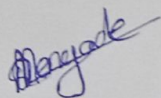
Name of the teacher: Prof Mengade N.s	Year: 2022-23	Semester: II
Subject: Cell Biology	Paper: II	Class: F Y B Sc

Part I : Teaching Plan						Part II : Evaluation of Plan			
1 Sr. No.	2 Month	3 Week	4 No. of working days	5 No. of periods available	6 Topics to be taught	7 No. of periods engaged	8 Topics taught	9 Deviation in periods	10 Remark
1	Nov 2022	3 & 4	9	8	1. Introduction: 1.1 Introduction cell biology, 1.2 Cell as basic unit of life. 1.3 Importance of Cell Biology and its applications in industry. Overview of Cells 1.3 Introduction to Prokaryotic and Eukaryotic cells. 1.4 Structure and function of Prokaryotic (E. coli) 1.5 Structure and function of Eukaryotic cells (Animal and Plant Cell)	8	1. Introduction: 1.1 Introduction cell biology, 1.2 Cell as basic unit of life. 1.3 Importance of Cell Biology and its applications in industry. Overview of Cells 1.3 Introduction to Prokaryotic and Eukaryotic cells. 1.4 Structure and function of Prokaryotic (E. coli) 1.5 Structure and function of Eukaryotic cells (Animal and Plant Cell)	Nil	---

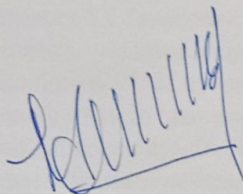
2	Dec2022	1 & 2	12	8	2 Techniques in Cell Biology: 3.1 Introduction 3.2 Microscopy: Basic Principle, Simple, Compound and applications of Electron Microscope. 3.3 Stains and dyes: Types of Stain: Acidic, basic and neutral. Dye (Preparation and chemistry of dyes not expected) 3.4 Micrometry	10	2 Techniques in Cell Biology: 3.1 Introduction 3.2 Microscopy: Basic Principle, Simple, Compound and applications of Electron Microscope. 3.3 Stains and dyes: Types of Stain: Acidic, basic and neutral. Dye (Preparation and chemistry of dyes not expected) 3.4 Micrometry	Nil	---
3	Jan 2023	3 & 4	11	7	3 Plasma Membrane: 4.1Introduction 4.2 Structure of plasma membrane: Fluid mosaic model. 4.3Transport across membranes: Active and Passive transport, Facilitated transport, exocytosis, endocytosis, phagocytosis – vesicles and their importance in transport. 4.4 Other functions of Cell membrane in brief Protection, cell recognition, shape, storage, cell signalling. 4.5 Cell Junctions: Tight junctions, gap junctions, Desmosomes. (06) 4 Nucleus: Structure and function 5.1Introduction to Nucleus 5.2 Structure of Nucleus: Nuclear envelope, Nuclear pore complex, Nucleoplasm, Nucleolus	8	3 Plasma Membrane: 4.1Introduction 4.2 Structure of plasma membrane: Fluid mosaic model. 4.3Transport across membranes: Active and Passive transport, Facilitated transport, exocytosis, endocytosis, phagocytosis – vesicles and their importance in transport. 4.4 Other functions of Cell membrane in brief Protection, cell recognition, shape, storage, cell signalling. 4.5 Cell Junctions: Tight junctions, gap junctions, Desmosomes. (06) 4 Nucleus: Structure and function 5.1Introduction to Nucleus 5.2 Structure of Nucleus: Nuclear envelope, Nuclear pore complex, Nucleoplasm, Nucleolus	1	Extra lecture was conducted
4	Feb2023	1 & 2	11	8	5.3 Chromatin: Eu-chromatin and Hetro-chromatin, nature and differences. 5.4 Functions of nucleus (04) 5. Endomembrane System 6.1 Introduction 6.2 Structure, location and Functions: Endoplasmic	8	5.3 Chromatin: Eu-chromatin and Hetro-chromatin, nature and differences. 5.4 Functions of nucleus (04) 5. Endomembrane System 6.1 Introduction 6.2 Structure, location and Functions: Endoplasmic	Nil	--

					Reticulum, Golgi apparatus, Lysosomes and vacuoles		Reticulum, Golgi apparatus, Lysosomes and vacuoles		
5	Mar2023	3 & 4	12	8	7. Mitochondria and Peroxisomes 7.1 Introduction 7.2 Mitochondria: ultrastructure and function of mitochondrion 7.3 Peroxisomes Cell Division 7.1 Introduction 7.2 Cell cycle (G1, S, G2, M phases), 7.3 Mitosis. 7.4 Meiosis.	8	5.3 Chromatin: Eu-chromatin and Hetro-chromatin, nature and differences. 5.4 Functions of nucleus (04) 5. Endomembrane System 6.1 Introduction 6.2 Structure, location and Functions: Endoplasmic Reticulum, Golgi apparatus, Lysosomes and vacuoles	1	Extra lecture was conducted on Sunday

- 1 The plan should be prepared in duplicate.
- 2 One copy of the plan should be submitted at the beginning of the term after filling up columns 1 to 6. The second copy must be retained by the teacher and submitted at the end of the term. Part second of the plan i. e. columns 7 to 10 must be filled up progressively at the end of every week.



Signature Of Teacher



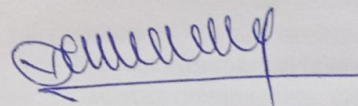
Signature Of Head Of Department

Dr. J. P. Sarwade

M.Sc., Ph.D., FZSI

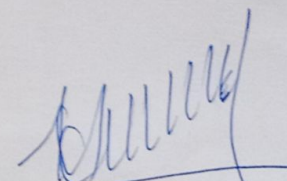
Head

Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106



Signature Of Faculty Incharge

Incharge
Science Faculty
Arts, Science & Commerce
College, Indapur, Dist. Pune



Signature of Principal

PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE