

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN June - November 2024

Department : Zoology
Name/s of the Faculty : Dr. Kalpana Jayaraman and *Ms Albina Jerome D
Course Title : Invertebrata
Course Code : 23ZL/MC/IV14
Shift : I

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Students will be able to recall the unique characters of different phyla, common and technical names of some animals	K1
CO2	Students will be able to describe the structural organization and functions of various invertebrates	K2
CO3	Students will be able to apply the knowledge to identify the organisms based on their characteristic features, life cycles and habits and relate it with human welfare	K3
CO4	Students will be able to analyse the special adaptations of invertebrates and the need for their conservation	K4
CO5	Students will be able to evaluate the economic importance and biological significance of invertebrates	K5

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 24 – 26, 2024 (Day Order 4 - 6)	1.1	*Introduction and Outline Classification of Animal Kingdom	K1 – K4	1	CO1 - CO4	Recapitulation PowerPoint Presentation	Dichotomous Key based problems
	4.1	Phylum Arthropoda: Characteristic Features and Classification	K1 – K5	1	CO1 – CO5	Observation of Museum Specimens Group Discussion	Questions based on observations

						Field Survey of Arthropods	Why is the diversity of Arthropods declining? How can this be reversed - problem solving question
Jun 27 – July 4, 2024 (Day Order 1 - 6)	1.2	*Phylum Protozoa: Characteristic Features - Type: <i>Paramecium caudatum</i> - External structure, Internal structure, Locomotion, Nutrition, Respiration, Excretion & Osmoregulation	K1 - K4	3	CO1 - CO4	Audio Visual Presentation Drawing the structure of <i>Paramecium</i> and labelling the parts	Making Flashcards to remember the key terminologies
	4.1	Phylum Arthropoda:: Type study: <i>Fenneropenaeus indicus</i> (<i>Penaeus indicus</i>) External characters, Appendages	K1 – K5	2	CO1 – CO5	Lecture Examination of Prawn appendages	Quiz on appendages
July 5 – 12, 2024 (Day Order 1 - 6)	1.2	*Type: <i>Paramecium caudatum</i> - Behaviour & Reproduction	K1 - K4	2	CO1 - CO4	Audio Visual Presentation Making flowcharts to understand the processes	Diagram Test
	1.3	*Locomotion in Protozoa	K1 - K4	1	CO1 - CO4	Audio Visual Presentation	Quiz on the various locomotor organelles seen in Protozoa

	4.1	Type study: <i>Fenneropenaeus indicus</i> (<i>Penaeus indicus</i>) Digestive System, Excretory System, Nervous System, Receptor Organs, Reproductive System, Development and Life Cycle	K1 – K5	2	CO1 – CO5	Lecture Drawing the various systems and labelling the parts	Peer evaluation of drawings
July 15 – 23, 2024 (Day Order 1 - 6)	1.4	*Parasitic Protozoans: <i>Entamoeba histolytica</i> and <i>Plasmodium sp.</i>	K1 - K5	3	CO1 – CO5	Lecture Making flowcharts to understand the lifecycle of the parasites	Group discussion - analysing the parasitic adaptations and preventive measures
	4.2	Structure and Phylogenetic Significance of <i>Peripatus</i>	K1 – K5	2	CO1 – CO5	Examination of Museum specimens of Annelids and Arthropods Lecture	Think-Pair-Share Group Discussion
July 24 – 31, 2024 (Day Order 1 - 6)	2.1	*Phylum Porifera: Characteristic Features Type : <i>Sycon</i> - External morphology & Canal system	K1 – K5	3	CO1 – CO5	Lecture Drawing diagrams and labelling the various external features and parts of the Canal system	Summarising the differences between Phylum Protozoa and Porifera Making Flashcards to remember the key terminologies
	4.3	Mouthparts and their Modification in Insects	K1 – K4	2	CO1 – CO4	Observing feeding insects on campus	Report on observations

						Examination of slides of mouth parts Group Discussion	
Aug 1 – 5, 2024 (Day Order 1 - 3)	2.1	*Type : <i>Sycon</i> - Histology, Skeleton, Physiology, Reproduction & Development	K1 – K5	2	CO1 – CO5	Illustrations and PowerPoint Presentation	Quiz based on the presentation
	4.4	Social Life in Insects: General Characteristic features	K1 – K5	1	CO1 – CO5	Group Discussion	Report on arthropods seen on campus- their diversity and abundance
Aug 6 – 10, 2024	C.A. Test – I (50 marks)						
Aug 12 – 14, 2024 (Day Order 4-6)	2.2	*Canal System in Sponges – Economic Importance of Porifera	K1 – K5	1	CO1 – CO5	Lecture Group Discussion	Diagram & Flowchart Test Summarising the economic importance of Porifera
	4.4	Social life of Termites	K1 – K5	1	CO1 – CO5	Audio Visual Presentation	Quiz based on the presentation
Aug 16 – 23, 2024	2.3	*Phylum Coelenterata: Characteristic Features - Type: <i>Obelia geniculata</i> - Morphology of Colony,	K1 – K4	3	CO1 – CO4	Examining Museum Specimens PowerPoint Presentation	Discussion

(Day Order 1-6)		Histology & Physiology					Labelling the various parts of <i>Obelia</i> Colony
	4.4	Social life of Honey Bees	K1 – K5	2	CO1 – CO5	A Day in the Life of a Honey Bee – Lecture Self-study with audio-visual references	Quiz based on audio visuals Discuss case study on declining honey bee populations
Aug 27 – Sep 3, 2024 (Day Order 1-6)	2.3	*Type: <i>Obelia geniculata</i> - Life History and Development	K1 – K4	3	CO1 – CO4	Lecture Drawing the Life cycle of <i>Obelia</i> and labelling the different stages	Quiz on <i>Obelia</i> Life cycle
	5.1	Phylum Mollusca: Characteristic Features and outline classification Phylum Mollusca: Type : <i>Pila globosa</i> External Characters, Shell, Mantle Cavity, Digestive System, Respiratory System	K1 – K4	2	CO1 – CO4	Examining museum specimens from Phylum Mollusca Lecture Drawing the various systems and labelling the parts	Quiz based on observations
Sep 4 – 11, 2024 (Day Order 1-6)	2.4	*Polymorphism in Coelenterates - Corals and Coral Reefs – Environmental Impact – Conservation-Affinities of Ctenophora	K1 - K5	3	CO1 - CO5	Lecture Audio Visual presentation Group Discussion based on Documentaries	Case study Analysis - Coral Bleaching Summarising the conservation strategies

	5.1	Phylum Mollusca: Type : <i>Pila globosa</i> Blood vascular System, Excretory System, Nervous System, Sense Organs, Reproductive System	K1 – K4	2	CO1 – CO4	Lecture Drawing the various systems and labelling the parts	Peer review of drawings
Sep 12 - 20, 2024 (Day Order 1-6)	3.1	*Phylum Platyhelminthes: Characteristic Features – Type : <i>Taenia solium</i> - Morphology, Body wall, Physiology, Reproduction & Life cycle	K1 - K5	3	CO1 - CO5	Examining Museum Specimens & Slides related to Phylum Platyhelminthes & <i>Taenia</i> PowerPoint Presentation	Quiz based on the presentation
	5.2	Economic Importance of Molluscs Torsion in Gastropods	K1 – K5	2	CO1 – CO5	Powerpoint Presentation Lecture	Flipped Classroom Component 1 Role Play – (students simulate different invertebrates, their habits, ecology, predators, anthropogenic impact) Max. Marks: 20
	3.2	*Helminth Parasites in Relation to Human	K1 – K5	2	CO1 – CO5	PowerPoint Presentation & Illustrations	Summarise the differences in the life

Sep 23 - 26, 2024 (Day Order 1-4)		Welfare: <i>Ascaris lumbricoides</i> , <i>Ancylostoma duodenale</i> , <i>Wuchereria bancrofti</i> and <i>Enterobius vermicularis</i> .					cycle and parasitic adaptations of the Helminth parasites
	5.3	Phylum Echinodermata: Characteristic Features and Classification	K1 – K4	1	CO1 – CO4	Examining museum specimens from Phylum Echinodermata Group Discussion	Quiz based on observations
Sep 27 – Oct 3, 2024	C.A. Test – II (50 marks)						
Oct 4 – 5, 2024 (Day 5 & 6)	3.3	*Phylum Annelida: Characteristics Features	K1 – K5	1	CO1 – CO5	Examining the museum specimens related to Phylum Annelida	Summarising the differences between Phylum Platyhelminthes and Phylum Annelida
Oct 7 - 15, 2024 (Day Order 1 to 6)	3.3	*Type: <i>Hirudinaria granulosa</i> - External Morphology, Body wall, Locomotion, Digestive System, Coelom, Respiration, Excretion, Nervous system and Reproduction	K1 - K5	3	CO1 - CO5	Lecture PowerPoint Presentation	Labelling the various parts of the diagram

	5.3	Type : <i>Asterias sp.</i> External Characteristics, Skeleton, Watervascular System, Digestive System, Respiration and Excretion	K1 – K4	2	CO1 – CO4	Lecture Drawing the various systems and labelling the parts Audiovisuals on the functioning of various systems	Peer review of drawings Component 2 Quiz Max. Marks: 30
Oct 16 - 22, 2024 (Day Order 1 to 6)	3.3	*Medicinal Significance - Leech therapy	K1 - K5	1	CO1 - CO5	Group Discussion	Summarising the points discussed
	3.4	*Metamerism in Annelids – Diversity of Annelids	K1 - K4	2	CO1 - CO4	Lecture	Quiz based on the Lecture
	5.3	Type : <i>Asterias sp.</i> Coelom, Nervous System, Perihaemal System, Blood Vascular System, Reproductive System Larval Forms of Echinoderms and their Significance	K1 – K4	1	CO1 – CO5	Lecture Drawing the various systems and labelling the parts	Peer review of drawings
5.4		K1 – K5	1		Powerpoint Presentation		
Oct 23 - 24, 2024 (Day Order 1 to 2)	REVISION						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN June - November 2024

Department : Zoology
Name/s of the Faculty : Dr. Rita Jayaraj, Dr. S. A. Vidhya, Dr. M. Parimalam & Ms. Janani N
Course Title : Invertebrata Practical
Course Code : 23ZL/MC/P112
Shift : I

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the distinctive features and biological significance of various Invertebrates and identify them	K1, K2
CO2	associate and illustrate the location and organization of organs and organ systems in invertebrates	K3
CO3	compare the structure, functions and adaptations of various invertebrates	K4
CO4	analyse and relate the structural and functional organisation of invertebrates	K5
CO5	apply the skills learnt for display and labelling of dissections, construction of model vermipit and documentation of campus fauna	K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 24 – 26, 2024 (Day Order 4 - 6)	No Class						
Jun 27 – July 4, 2024 (Day Order 1 - 6)	3	Overview of Syllabus General instructions Introduction Basics of Microscopy <u>Spotters</u> Protozoa, Porifera	K1 - K3	3	CO1 - CO2	Explanation and Demonstration Observation and identification of organisms (prepared slides/ museum specimens/photographic plates)	Students asked to focus a prepared slide under the dissection and/or compound microscope Evaluation of Observation notebook
July 5 – 12, 2024 (Day Order 1 - 6)	2 & 3	<u>Mount</u> Mouth parts: Mosquito and Housefly <u>Spotters</u> Coelenterata, Platyhelminthes, Aschelminthes	K4 - K6 K1 - K3	3	CO3 - CO5 CO1 - CO2	Explanation and Demonstration Observation and identification of organisms (prepared slides/ museum specimens/photographic plates)	Evaluation of the mount Evaluation of Observation notebook

<p>July 15 – 23, 2024 (Day Order 1 - 6)</p>	<p>2 & 3</p>	<p><u>Mount</u> Mouth parts: Honeybee</p> <p><u>Spotters</u> Identification of Insect vectors - <i>Aedes sp, Culex sp, Pediculus sp, Xenopsylla sp</i> and <i>Sarcoptes scabiei</i></p> <p>Extraction of Soil microarthropods using Berlese funnel</p>	<p>K4 - K6</p> <p>K1 - K3</p>	<p>3</p>	<p>CO3 - CO5</p> <p>CO1 - CO2</p>	<p>Explanation and Demonstration</p> <p>Observation and identification of organisms (prepared slides/ museum specimens/photographic plates)</p>	<p>Evaluation of the mount</p> <p>Evaluation of Observation notebook</p>
<p>July 24 – 31, 2024 (Day Order 1 - 6)</p>	<p>1</p>	<p><u>Dissection</u> <i>Periplaneta americana</i> - Digestive system / <i>Fenneropenaeus indicus</i> Nervous system</p>	<p>K3 - K6</p>	<p>3</p>	<p>CO2 - CO5</p>	<p>Explanation and Demonstration</p>	<p>Evaluation of Dissection</p>

Aug 1 – 5, 2024 (Day Order 1 - 3)	1 & 3	<u>Dissections - Repeat</u> <i>Periplaneta americana</i> - Digestive system / <i>Fenneropenaeus indicus</i> Nervous system <u>Spotters</u> Annelida Arthropoda	K3 - K6 K1 - K3	3	CO2 - CO5 CO1 - CO2	Explanation Observation and identification of organisms (prepared slides/ museum specimens/photographic plates)	Evaluation of Dissection Evaluation of Observation notebook
Aug 6 – 10, 2024	C.A. Test - I						
Aug 12 – 14, 2024 (Day Order 4-6)	No Class						
Aug 16 – 23, 2024 (Day Order 1-6)	Practical CA I (50 marks) (Dissection = 20 marks, Mount and Diagram = 15 marks, Spotters = 10 marks, Vermitech = 5 marks)						

Aug 27 – Sep 3, 2024 (Day Order 1-6)	2 & 3	<p style="text-align: center;"><u>Mounts</u></p> Body setae of Earthworm Appendages of Prawn <p style="text-align: center;"><u>Spotters</u></p> Mollusca Echinodermata	K4 - K6 K1 - K3	3 3	CO3 - CO5 CO1 - CO2	<p style="text-align: center;">Explanation and Demonstration</p> <p style="text-align: center;">Observation and identification of organisms (prepared slides/ museum specimens/photographic plates)</p>	<p style="text-align: center;">Evaluation of the mounts</p> <p style="text-align: center;">Evaluation of Observation notebook</p>
Sep 4 – 11, 2024 (Day Order 1-6)	5	<p style="text-align: center;">Study of any ten Invertebrate fauna in the Stella Maris College Campus (Observation of habit, habitat and adaptive features) Record of Microhabitat and correlation of host plant interaction (wherever possible)</p>	K5 & K6	3	CO4 - CO5	<p style="text-align: center;">Campus Faunal Survey</p>	<p style="text-align: center;">Compilation of Faunal Survey Report</p>
Sep 12 - 20, 2024 (Day Order 1-6)	1	<p style="text-align: center;"><u>Dissection</u></p> <i>Periplaneta americana</i> – Nervous system	K3 - K6	3	CO2 - CO5	<p style="text-align: center;">Explanation and Demonstration</p>	<p style="text-align: center;">Evaluation of Dissection</p>

Sep 23 - 26, 2024 (Day Order 1-4)	5	Workshop on Vermitechnology Study of life history stages of <i>Lampito mauritii</i> and <i>Perionyx excavatus</i>	K5 - K6	3	CO4 - CO5	Workshop	Construction of model vermipit Evaluation of Faunal Survey Report
Sep 27 – Oct 3, 2024	C.A. Test - II						
Oct 4 – 5, 2024 (Day 5 & 6)	No Class						
Oct 7 - 15, 2024 (Day Order 1 to 6)	Practical CA II (50 marks) (Dissection = 20 marks, Mount and Diagram = 15 marks, Spotters = 10 marks, Fauna = 5 marks)						
Oct 16 - 22, 2024 (Day Order 1 to 6)	1	<u>Computer Simulated Dissection</u> Digital Earthworm	K3 - K6	3	CO2 - CO5	Simulation	Worksheet Evaluation of Observation notebook
Oct 23 - 24, 2024 (Day Order 1 to 2)	REVISION						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN June - November 2024

Department : Zoology
Name/s of the Faculty : Dr. Parimalam M
Course Title : General Zoology I
Course Code : 23ZL/AC/GZ14
Shift : I

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Students will be able to recall the characteristic features and outline classification of Invertebrates and Chordates	K1
CO2	Students will be able to describe the structural and functional organisation of Invertebrates and Chordates	K2
CO3	Students will be able to apply the acquired knowledge to identify the specific adaptations and the causes, mode of transmission, symptoms, and preventive measures of various diseases	K3
CO4	Students will be able to analyse the specific adaptations, behaviours, various threats to some animals and strategies for their conservation	K4
CO5	Students will be able to evaluate the economic importance and biological significance of animals	K5

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
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Jun 24 – 26, 2024 (Day Order 4 - 6)		Introduction and Orientation		1			
	1.1	Introduction: Outline Classification of Animal Kingdom Characteristic features of invertebrates	K1 – K2	2	CO1 - 2	Discussion	Group Discussion
Jun 27 – July 4, 2024 (Day Order 1 - 6)	1.2	Protozoa: Characteristic features- Type <i>Paramecium caudatum</i> Protozoa–characteristic features; Morphology, Locomotion, Nutrition, Respiration, Excretion, Reproduction	K1-K5	4	CO1-5	Discussion PowerPoint	Recapitulation Questioning
July 5 – 12, 2024 (Day Order 1 - 6)	1.3	Coelenterata: Characteristic Features - Corals and Coral Reefs – Conservation and Economic Importance	K1-K5	4	CO1-5 CO1-5	PowerPoint Audio Visual Presentation Documentaries on Coral Reef Conservation Coral Reef Building Game	Discussion
July 15 – 23, 2024 (Day Order 1 - 6)	1.4	Platyhelminthes & Aschelminthes: Characteristic Features Helminth Parasites in relation to Human Welfare: Causative	K1-K5	4	CO1-5	PowerPoint Lecture Life Cycle Charts	Case Analysis

		Organism, Life Cycle, Mode of Transmission, Symptoms & Prophylaxis of the following: <i>Taenia solium</i> , <i>Ascaris lumbricoides</i> and <i>Enterobius vermicularis</i>					
July 24 – 31, 2024 (Day Order 1 - 6)	2.1	Annelida: Characteristic Features - Vermitechnology: Vermiculture, Vermicomposting, Vermiwash and Setting up of Vermipit.	K1-K5	4	CO1-5	Experiential learning method (Learning by doing)	Experiential learning method (Learning by doing)
	2.2	Arthropoda: Characteristic Features	K1		CO1-5	PowerPoint	Group Discussion
Aug 1 – 5, 2024 (Day Order 1 - 3)	2.2	Mode of Infection and Diseases caused by the following Vectors: <i>Aedes sp.</i> , <i>Pediculus sp.</i> , <i>Musca domestica</i> Social Life in Insects	K1 – K5	1	CO1-5	Chalk and Talk PowerPoint Documentary on social insects	Oral Quiz on Vectors Component 1– Scrapbook on Invertebrates and Chordates Max. Marks: 20 Group Discussion
Aug 6 – 10, 2024	C.A. Test – I (50 marks)						
Aug 12 – 14, 2024	2.3	Mollusca: Characteristic	K1-K5	3	CO1 - 5	Lecture	Oral Quiz

(Day Order 4-6)	2.4	Features – Economic Importance Echinodermata: Characteristic Features Type: <i>Asterias sp.</i> - External characteristics Type: <i>Asterias sp.</i> - Skeleton, Water Vascular system and Digestive system, Respiration, Excretion, Nervous system and Perihemal system				PowerPoint Audiovisual presentations	Group discussion Diagram Quiz
Aug 16 – 23, 2024 (Day Order 1-6)	2.4 3.1 3.2	Type: <i>Asterias sp.</i> - Blood vascular system and Reproductive system Prochordata: Characteristic Features of Cephalochordata, Hemichordata and Urochordata- Affinities of Hemichordata Agnatha: Characteristic Features	K1-K5	4	CO1-5 CO1-5	Audio visual presentation Powerpoint Discussion	Questioning Recapitulation

Aug 27 – Sep 3, 2024 (Day Order 1-6)	3.3	Pisces: Characteristic Features Parental Care in Fishes Migration in Fishes	K1 – K5	4	CO1-5	Audio visual presentation/documentary	Group Quiz
Sep 4 – 11, 2024 (Day Order 1-6)	4.1 4.2	Amphibia and Reptilia: Characteristic Features Snakes of South India	K1-K5	4	CO1-5	PowerPoint Documentary	Component 2: Poster submission https://docs.google.com/spreadsheets/d/1BK94CSBvTEOiQrPBV0aXo7XkPdTBefa1/edit?usp=sharing&oid=102495063965397782335&rtpof=true&sd=true Max. Marks: 20
Sep 12 - 20, 2024 (Day Order 1-6)	4.2 4.3	Turtle Conservation Aves: Characteristic Features Types of Feathers Flight Adaptations	K1-K5	4	CO1-5	PowerPoint Lecture	
Sep 23 - 26, 2024 (Day Order 1-4)	4.3 5.1	Flight Adaptations (contd.) Mammalia: Characteristic Features	K1 – K5	2	CO1-5	Lecture	Discussion

Sep 27 – Oct 3, 2024	C.A. Test – II (50 marks)						
Oct 4 – 5, 2024 (Day 5 & 6)	5.3	Aquatic Mammals	K1-K5	2	CO1-5	PowerPoint Audiovisual presentation	Component 3 Quiz (Unit 4.3): Max. Marks: 10
Oct 7 - 15, 2024 (Day Order 1 to 6)	5.2	Type: <i>Oryctolagus cuniculus</i> External features Digestive system, Respiratory system	K1-K5	4	CO1-5	PowerPoint Lecture	
Oct 16 - 22, 2024 (Day Order 1 to 6)	5.2	Type: <i>Oryctolagus cuniculus</i> Circulatory system and Nervous system, Excretory and Reproductive system	K1-K5	4	CO1-5	Audiovisual presentation Lecture	Revision
Oct 23 - 24, 2024 (Day Order 1 to 2)	REVISION						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN June - November 2024

Department : Zoology
Name/s of the Faculty : Dr. S. A. Vidhya, Ms. Albina Jerome D & Dr. M. Parimalam
Course Title : General Zoology I Practical
Course Code : 23ZL/AC/P111
Shift : I

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Recall and identify various Invertebrates and Chordates based on their distinctive characteristics and biological significance	K1, K2
CO2	Associate and illustrate the location and organization of organs and organ systems in Invertebrates and Chordates	K3
CO3	Apply the knowledge to compare the structure, functions and adaptations of various invertebrates and chordates	K4
CO4	Analyze the structural and functional organization of Invertebrates and Chordates	K5
CO5	Compile a document of campus fauna and use practical skills for displaying the dissections and mounts	K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
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Jun 24 – 26, 2024 (Day Order 4 - 6)	No Class						
Jun 27 – July 4, 2024 (Day Order 1 - 6)		Introduction & Microscopy		2		Simulation & Demonstration	
July 5 – 12, 2024 (Day Order 1 - 6)	2 & 3	<u>Mounts</u> Mouth parts: Mosquito <u>Spotters</u> Protozoa : <i>Paramecium caudatum</i> Coelenterata : <i>Hydra sp.</i> , <i>Tubipora sp.</i> and <i>Meandrina sp.</i> Annelida : <i>Hirudinaria sp.</i> and <i>Nereis sp.</i>	K4 - K6 K1 - K3	2	CO1 - CO5	Demonstration & Explanation Identification of organisms using preserved slides/museum specimens/ photographic plates	Evaluation of the mount Evaluation of Observation notebook
July 15 – 23, 2024 (Day Order 1 - 6)	2 & 3	<u>Mounts</u> Mouth parts: Housefly <u>Spotters</u> Arthropoda : <i>Palamnaeus sp.</i> and <i>Panaeus indicus</i> Mollusca : <i>Sepia</i> , <i>Ostrea sp.</i> and <i>Xancus sp.</i> Echinodermata : <i>Asterias sp.</i> , <i>Holothuria sp.</i>	K4 - K6 K1 - K3	2	CO1 - CO5	Demonstration & Explanation Identification of organisms using museum specimens/ photographic plates	Evaluation of the mount Evaluation of Observation notebook

July 24 – 31, 2024 (Day Order 1 - 6)	5	Identification of any five invertebrate and five chordate fauna in the SMC Campus	K5 & K6	2	CO4 & CO5	PowerPoint Presentation & Campus Faunal Survey	Faunal report submission
Aug 1 – 5, 2024 (Day Order 1 - 3)	1	<u>Dissections</u> <i>Periplaneta americana</i> - Digestive system / Prawn - Nervous system	K3 - K6	2	CO2 - CO5	Demonstration & Explanation	Evaluation of Dissection
Aug 6 – 10, 2024	C.A. Test - I						
Aug 12 – 14, 2024 (Day Order 4-6)	No Class						
Aug 16 – 23, 2024 (Day Order 1-6)	Practical CA 1 (50 marks) (Dissection = 20 marks, Mount and Diagram = 15 marks, Spotters = 10 marks, Fauna = 5 marks)						
Aug 27 – Sep 3, 2024 (Day Order 1-6)	2 & 3	<u>Mounts</u> Scales: Ctenoid Scale - Mullet and Cycloid Scale - Carp <u>Spotters</u> Prochordata : <i>Amphioxus sp.</i> , and <i>Ascidia sp.</i> Pisces : <i>Scoliodon sp.</i> and <i>Notopterus sp</i>	K4 - K6 K1 - K3	2	CO1 - CO5	Demonstration & Explanation Identification of organisms using preserved slides/museum specimens/ photographic plates	Evaluation of the mount Evaluation of Observation notebook Evaluation of Faunal Report

<p>Sep 4 – 11, 2024 (Day Order 1-6)</p>	<p>2 & 3</p>	<p><u>Mounts</u> Scales: Placoid Scale - Shark</p> <p><u>Spotters</u> Amphibia : <i>Duttaphrynus melanostictus</i> and <i>Ambystoma sp.</i> Reptilia : <i>Chameleon sp.</i>, <i>Naja naja</i> and <i>Hydrophis</i> Aves : <i>Dinopium sp.</i> and <i>Psittacula sp.</i> Mammalia : <i>Manis sp.</i> and Bat</p>	<p>K4 - K6</p> <p>K1 - K3</p>	<p>2</p>	<p>CO1 - CO5</p>	<p>Demonstration & Explanation</p> <p>Identification of organisms using museum specimens/ photographic plates</p>	<p>Evaluation of the mount</p> <p>Evaluation of Observation notebook</p>
<p>Sep 12 - 20, 2024 (Day Order 1-6)</p>	<p>1 & 4</p>	<p><u>Computer Simulated Dissection</u> Invertebrata - Earthworm; Chordata - Frog</p> <p><u>Observation and identification of the following Parasites</u> <i>Entamoeba histolytica</i>, <i>Taenia solium</i> and <i>Ascaris lumbricoides</i></p>	<p>K3 - K6</p> <p>K1 - K3</p>	<p>2</p>	<p>CO1 - CO5</p>	<p>Simulation</p> <p>Identification of organisms using preserved slides/museum specimens/ photographic plates</p>	<p>Worksheet</p> <p>Evaluation of Observation notebook</p>

Sep 23 - 26, 2024 (Day Order 1-4)	1 & 4	<u>Dissections</u> <i>Periplaneta americana</i> - Nervous system / Prawn - Nervous system (Repeat)	K3 - K6	2	CO1 - CO5	Demonstration & Explanation	Evaluation of Dissection
		<u>Observation and identification of the following Vectors</u> <i>Anopheles sp., Aedes sp., Pediculus sp., Xenopsylla cheopis</i> and <i>Cimex sp.</i>	K1 - K3			Identification of organisms using preserved slides/museum specimens/ photographic plates	Evaluation of Observation notebook
Sep 27 – Oct 3, 2024	C.A. Test - II						
Oct 4 – 5, 2024 (Day 5 & 6)	No Class						
Oct 7 - 15, 2024 (Day Order 1 to 6)	Practical CA 2 (50 marks) (Dissection = 20 marks, Mount and Diagram = 15 marks, Spotters = 10 marks, Fauna = 5 marks)						
Oct 16 - 22, 2024 (Day Order 1 to 6)	Revision						
Oct 23 - 24, 2024 (Day Order 1 to 2)	NO CLASS						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN June - November 2024

Department : Zoology
Name/s of the Faculty : Dr. Rita Jayaraj & *Ms. Janani N
Course Title : Life Skills - Health, Energy and Computer Basics
Course Code : 23ZL/SS/HC13
Shift : I

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Recall the importance of a few traditional foods and their health benefits, common ailments and their natural remedies, food energy parameters, energy devices and computer fundamentals	K1
CO2	Understand the health benefits of few traditional foods, causes and symptoms of few common ailments with their natural remedies, concept of food energy parameters, energy conservation strategies and concepts relating to emerging trends in IT	K2
CO3	Apply the knowledge obtained for better quality of health and for computer and email configurations	K3
CO4	Analyse the knowledge obtained for good health, sustainable practices and for enhancing computer usage skills	K4

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 24 – 26, 2024 (Day Order 4 - 6)	1.1.1	Food and Health Traditional food and their health benefits	K1 - K4	1	CO1 - CO4	Presentation	Questioning

		Six tastes – Natural guide map towards proper nutrition					
Jun 27 – July 4, 2024 (Day Order 1 - 6)	1.1.2	Nutritional value and significance of Navadhanya (Sesame seed, Bengal gram, Horse gram, Green gram, Paddy seeds, White beans, Wheat, black gram and Chick pea)	K1 - K4	1	CO1 - CO4	Case study	Questioning
	2.1	*Units of Energy, Components of Total Energy Requirement (Introduction)	K1- K4	2	CO1 - CO4	Lecture Group Discussion	Summarising the points from discussion.
July 5 – 12, 2024 (Day Order 1 - 6)	1.1.2	Greens - Vallarai, Thuthuvalai, Manathakkali, Pulichakeerai, Agathi Keerai	K1 - K4	1	CO1 - CO4	Presentation	Discussion
	2.1	*Components of Total Energy Requirement – Basal Metabolic Rate, energy requirements for (work) physical activity and Thermic effect of food	K1- K4	2	CO1 - CO4	PowerPoint Presentation	Problems based on calculation of BMR
July 15 – 23, 2024	1.1.2	Nutritional value and significance of Greens	K1 - K4	1	CO1 - CO4	Presentation	Discussion

(Day Order 1 - 6)		Murungai Keerai, Karuveppilai, Puthina and Kothamalli					
	2.2	*Factors affecting Basal Metabolic Rate and Thermic Effect of food	K1- K4	2	CO1 - CO4	Group Discussion based on research articles	Presentation of the points discussed as a group
July 24 – 31, 2024 (Day Order 1 - 6)	1.2	Causes, symptoms and home remedies for the following ailment - Common cold	K1 - K4	1	CO1 - CO4	Presentation & Case study	Oral quiz
	2.3	Recommended Dietary Allowances and Balanced Diet, Food Energy Values - Calculation	K1- K4	2	CO1 - CO4	Lecture Problems based on Food Energy value calculation	Component 1 – Food calories intake calculation for a week Max Marks: 15
Aug 1 – 5, 2024 (Day Order 1 - 3)	3.1.1	*Needs for Energy Conservation – Power consumption of domestic appliances – Electrical Energy Audit	K1- K4	2	CO1 - CO4	PowerPoint Presentation	Case study analysis
Aug 6 – 10, 2024	C.A. Test - I						
Aug 12 – 14, 2024 (Day Order 4-6)	1.2	Causes, symptoms and home	K1 - K4	1	CO1 - CO4	Group discussion	Comprehension

		remedies for the following ailment - Anaemia, Hypothyroidism					
Aug 16 – 23, 2024 (Day Order 1-6)	1.2	Causes, symptoms and home remedies for the following ailment - Obesity	K1 - K4	1	CO1 - CO4	Case study	Quiz
	3.1.1	*Strategies for Energy Conservation - Modern lighting systems– Light emitting diode (LED), Compact fluorescent lamps (CFL), Green indicators and Inverter	K1- K4	2	CO1 - CO4	Lecture	Discussion
Aug 27 – Sep 3, 2024 (Day Order 1-6)	1.2	Causes, symptoms and home remedies for the following ailment - Diabetes Mellitus	K1 - K4	1	CO1 - CO4	Case study	Survey
	3.1.1	*Green building - Home lighting using Solar cell - Solar water heaters - Water and waste management - Biogas plant	K1- K4	2	CO1 - CO4	Lecture Group Discussion	Summarising the points from discussion.

Sep 4 – 11, 2024 (Day Order 1-6)	1.2	Causes, symptoms and home remedies for the following ailment - Polycystic Ovarian Syndrome	K1 - K4	1	CO1 - CO4	Case study	Survey
	3.1.2	*Safety Practices in using electronic gadgets and electricity at home – Precautions - Shock- Use of testers to identify leakage	K1- K4	2	CO1 - CO4	Discussion	Component 2 - Group Presentation (Unit 3) Max. Marks: 20
Sep 12 - 20, 2024 (Day Order 1-6)	1.2	Causes, symptoms and home remedies for the following ailment - Ulcer , types of ulcer, Wheezing	K1 - K4	1	CO1 - CO4	Presentation	Questioning
	3.2.1	*Essentials of Purchasing a Personal Computer - Fundamentals of Networks – Local Area Network, Internet, Networking in real-time scenario	K1- K4	2	CO1 - CO4	Lecture	
Sep 23 - 26, 2024 (Day Order 1-4)	3.2.1	*Computer Hacking – Computer Forensics	K1- K4	2	CO1 - CO4	Case study based discussions	

		Fundamentals – Cyber Laws - Secure Browsing					
Sep 27 – Oct 3, 2024	C.A. Test - II						
Oct 4 – 5, 2024 (Day 5 & 6)	1.2	Causes, symptoms and home remedies for the following ailment - Hypertension	K1 - K4	1	CO1 - CO4	Presentation and Case study	Survey
Oct 7 - 15, 2024 (Day Order 1 to 6)	1.2	*BMI calculation	K1 - K4	1	CO1 - CO4		Assignment
	3.2.2	*Configuring Email Configure Email Settings – Attachments – Compression – Organizing Emails – Manage Folders - Auto Reply - Electronic Business Card - Email Filters- Manage Junk Mail - Calendar - Plan Meetings, Appointments - Scheduling Emails	K1- K4	2	CO1 - CO4	Lecture & Demonstration	Quiz
Oct 16 - 22, 2024 (Day Order 1 to 6)	1.2	Common ailments assessment – For each student	K1 - K4	1	CO1 - CO4		Component 3 Quiz on Health and Common Disorders

							Max. Marks: 15
	3.2.3	*Emerging Trends in IT - 3D Printing, Cloud Storage, Augmented Reality, Artificial Intelligence, Internet of Things (IoT)	K1- K4	2	CO1 - CO4	PowerPoint Presentation	Debate on the use of AI
Oct 23 - 24, 2024 (Day Order 1 to 2)	REVISION						