Department of Zoology									
1.1.2 Details of courses offered by the institution that focus on employability/ entrepreneurship/ skill development during the year.									
S.No.	**Name of the Course**	**Course Code**	**Em**	**Activities Focusing on**	**En**	**Activities Focusing on**	**SD**	**Activities Focusing on Skill Development**	**Outcome**
2023-2024									
1	Core Course I-Invertebrata	ZU231CC1					☑	Visit to the museum of preserved animals at Chervarkonam to learn the part of endoskeleton and preservation	To gain knowledge on classification of invertebrates.
2	Core Lab Course - Invertebrata	ZU231CP					☑	Dissect internal organs and other parts of invertebrates such as trachea, appendages and mouthparts to develop	To train in dissecting and displaying the internal organs and mounting the mouthparts and
3	Elective Course I : Allied Zoology I	ZU231EC1					☑	Field visit to identify the animals by applying general characters in their	To gain knowlegde on Beekeeping, Honey processing, Poultry farming.
4	Elective Lab Course 1: Lab of Allied Zoology 1	ZU231EP1	☑	Practicals to analyse the impact of physical factors			☑	Through practicals develop dissection and analytical skills.	To apply the concept of Applied Zoology.
5	(NME 1) Ornamental Fish Farming & Management	ZU231NM1			☑	Hands on training to establish and maintaining an aquarium.	☑	Trained to identify locally available ornamental fishes and live feed organisms.	To identify the cultureable fishes, maintain an aquarium and marketing the commercially important ornamental fishes.
6	Foundation Course in Zoology	ZU231FC1					☑	Field visit to identify animals belongs to different Phylum by their external characters .	To train dissection and display the internal organs and mount the mouthparts and scales of
7	Core Course II: Chordata	ZU232CC1					☑	Field visit to museum tyo identify chrdates by their external characters.	To gain knowledge on the structural organization of various organs and systems in different classes of
8	Core Lab Course II: Lab on Chordata	ZU232CP1					☑	Practical to ldevelop the skill of dissection and identifying the internal organs.	To obtain knowledge on general characters of each Phylum, subphylum and class.
9	Elective Course II:Allied Zoology II	ZU232EC1	☑	Through practicals analyse the effect of physical factors.			☑	Field visit to identify the animals by applying general characters in their natural environment .	To develop interdisciplinary skills for availing employment opportunities.
10	Non-Major Elective NME II:Bio-composting for Entrepreneurship	ZU232NM1			☑	Visited the vermiculture unit to findout the scope of	☑	Hands on training to prepare biocomposting.	To gain interdisciplinary knowledge.
11	Skill Enhancement Course SEC I Animal	ZU232SE1					☑	Field visit to observe animal behaviour.	To gain knowledge on different behaviour of animals.
12	Elective Lab Course II: Lab on Allied Botany	ZU232EP1	☑	Practicals to develop sissection			☑	Practicals to develop the skill of dissection and identifying the internal	To develop practical skills in basic concepts of biology.
13	Major Core III: Cell Biology	ZC2031					☑	Practicals to develop cytological staining techniques.	To develop skill on cytological techniques.
14	Major Elective I: (a) Biochemistry, Biophysics and	ZC2032	☑	Hands on training on analytical methods.			☑	Experiential learning to analyse the biochemicals.	To obtain knowledge on laboratory techniques in Biochmistry and Biostatistics.
15	Major Elective I: (b) Bioinformatics	ZC2033					☑	Retreive databases from NCBI	To equip the students with skills needed to comprehensively explore biological databases, perform sequence alignments and analyses.
16	Major Elective I: (c) Wildlife Biology	ZC2034					☑	Through field visit observe wild animals.	To equip the students with knowledge on wildlife.
17	Allied Zoology II: General Zoology	ZA2031	☑	Practicals to develop sissection			☑	Field visit to observe and identify animals.	To obtain knowlegde on Beekeeping, Honey processing,
18	SLC-Ornamental Fish Culture	ZC20S1					☑	Hands on training to maintain an aquarium.	To train in ornamental fish culture.
19	Add on course: Professional English for Life Sciences	ALS203					☑	Language lab to learn English pronunciation.	To train in reading, writing skills and to obtain knowledge over PPT presentation.
20	Major Core IV: Genetics	ZC2041					☑	Demonstration on experiments related to heriditary.	To train to identify heriditary related syndromes and disorders.
21	Major Elective II: (a) Clinical Lab Technology	ZC2042	☑	Hands on training to learn biochemical analytical methods.			☑	Experiential learning to gain analytical skills.	To train in conducting a wide range of diagnostic tests, interpreting results, and contributing to effective healthcare delivery.
22	Major Elective II: (b) Animal Care and	ZC2043			☑		☑		To train in animal husbandary.
23	Major Elective II: (c) Entomology	ZC2044					☑		To identify the pest insects.
24	Major Practical II: Cell Biology and &Genetics; Elective	ZC20P2					☑	Hands on training on staining techniques and using microscope.	To train in cytological techniques, Biochemical analysis of etc., statistical calculation.
25	Allied Zoology II: Applied Zoology	ZA2041	☑	Hands on training on silk worm rearing	☑	Field visit to maintain an Apiary and	☑	Hands on training to rear silkworm, honey bee and earthworm.	To obtain knowlegde on Beekeeping, Honey processing, Poultry farming.

26	Allied Zoology II: Practical General Zoology & Applied	ZA20P1					☑	Hands on training to explain the economic importance of animals and clinicalprocedures.	To develop the concept of Applied Zoology.
27	SLC- Nutrition and Dietetics	ZC20S2			☑	Food schedule chart for life-style associated diseases.	☑	Hands on training to prepare food .	To understand the dietary principles, nutritional needs, and their impact on human health, and contribute to improved overall well-
28	Add on course: Professional English for Life Sciences	ALS203					☑	Assignments to develop reading, writing and computer skills.	To train in reading, writing skills and to obtain knowledge over PPT presentation.
29	Major Core V: Physiology	ZC2051					☑	Assignments to make models of organs and organ systems.	To understand the concepts of functional anatomy of different
30	Major Core VI: Biotechnology	ZC2052	☑	Hands on training on biological technques.	☑	Laboratory visit to observe biotechnological instruments.	☑	Hands on training on biological technques.	To obtain knowledge in technical skills of Biotechnology.
31	Major Core VII: Ecology and	ZC2053					☑	Assignments to make models of organs and organ systems.	To gain knowledge on pollution and Environment.
32	Reserch Project	ZC20PR					☑	Writing articles for journals.	To apply the biological method by formulating a hypothesis, gathering relevant data and analyzing the data to address the problem effectively.
33	Major Core VIII: Developmental	ZC2061					☑	Visit to museums to observe different development satages of an embryo.	To identify the variation in organ development.
34	Major Core IX: Immunology and Microbiology	ZC2062			☑	Learn Immunological technique	☑	Assignment to make models of immune cells and microbes.	To understand the role of microorganisms in human health and disease and principles of
35	Major Core X: Organic Evolution	ZC2063					☑	Visit to museum to observe different stages of evolution.	To acquire a basic understanding of earth history and of the fossil record, including an appreciation for the time scale over which
36	Major Elective III: (a) Economic Zoology	ZC2064	☑	Field visit to poultry farm, silkworm rearing	☑	Field visit to observe Poultry farm, silkworm	☑	Field visit to observe Poultry farm , silkworm and aquarium.	To obtain knowledge in understanding animal husbandary.
37	Major Elective III: (b) Sericulture	ZC2065	☑		☑		☑		To train in silkworm rearing.
38	Major Elective III: (c)Aquaculture	ZC2066	☑		☑		☑		To obtain knowledge needed for aquaculture.
39	Major Practical III Physiology and Biotechnology	ZC20P3	☑	Experiential learning on factors which affect physiology and			☑	Experiential learning on factors which affect physiology and analytical biotechnology.	To train in Laboratory skills.
40	Major Practical IV Ecology and Toxicology and Organic Evolution	ZC20P4	☑	Experiential learning on the effect of physical factors on environmental and	☑	Experiential learning on the effect of physical factors on environmental	☑	Experiential learning on the effect of physical factors on environmental and lives.	To train in water quality analysis and to understand the process of Evolution.
41	Major Practical V Developmental Zoology and Immunology and	ZC20P5	☑	Practicals to observe development process of Chick			☑	Practicals to observe development process of Chick embyro.	To gain in-depth knowledge on different antibiotics from the viewpoint of targets, resistance mechanisms and spectrum
42	Skill Enhancement Course	ZSK206	☑	Hands on training in	☑	Establish Vermicomposting	☑	Hands on training in Vermicomposting.	To obtain knowlegde on vermitechnology.
43	Core Course - I Structure and Function of Invertebrates	ZP231CC1	☑	Visiting the zoological park at Thiruvananthapuram learning the diversity of animals			☑	Visiting the zoological park at Thiruvananthapuram identify the animals by their characters.	To understand the diversed anatomical features and physiological processes of invertebrate animals.
44	Core Course - II: Comparative Anatomy of Vertebrates	ZP231CC2	☑	Visiting the zoological park at Thiruvananthapuram learning the diversity of animals			☑	Visiting the zoological park at Thiruvananthapuram identify the animals by their characters.	To grasp the anatomical similarities and variations among chordate species.
45	Core Lab Course – I: Lab Course in Invertebrates &	ZP231CP1					☑	Dissect internal organs and other parts of invertebrates such as trachea, appendages and mouthparts to develop	To train in practical skill.
46	Elective Course – I : a) Molecules and their interaction relevant to Biology	ZP231EC1	☑	Hands on training on analytical methods.			☑	Experiential learning to analyse the biochemicals.	To obtain knowledge on biomolecules.
47	Elective Course – I : b) Forensic Biology	ZP231EC2					☑		To formulate artificial fish feed.
48	Elective Course – I : c) Wildlife Management	ZP231EC3					☑		To understand the importance of Wildlife Management and to evaluate the loss due to invasive species and estimate number of

49	Elective Course – II : a) Biostatistics	ZP231EC4	☑	Experiential learning collect biological data,	☑	Hands on training to on computer application for	☑	Assignments to solve problems.	To train in Statistical skills.
50	Elective Course – II : b) Applied Zoology	ZP231EC5			☑		☑		To obtain knowledge in Apiary Poultry farming, Dairy Farming, Aquaculture and Sericulture.
51	Elective Course – II : c) Pest Management	ZP231EC6	☑				☑		To obtain knowledge on pest management.
52	Elective Lab Course I: Molecules and their interaction relevant to Biology & Biostatistics	ZP231EP1	☑	Laboratory visit to learn the analytical techniques.	☑	Laboratory visit to learn the operation and application of	☑	Experiential learning to analyse biochemical samples.	To gain employability in industrial, biomedical and research laboratories.
53	Core Course – III: Cellular and Molecular Biology	ZP232CC1	☑	Roleplay develops the understanding of cellular			☑	Vising the laboratories learn the application of microscopes.	To obtain knowledge on various cellular components and their functions.
54	Core Course – IV: Developmental Biology	ZP232CC2	☑	Practical helps to identifying various stages of meiosis in the testes of			☑	Practical : Compare development of organs in different hours of chick embryo by mounting.	To understand various principles of developmental biology to analyze and compare the embryonic development of different animal
55	Core Lab Course – II: Lab Course in Cell Biology and Developmental Biology	ZP232CP1	☑	Through Sectioning observe different stages of cell cycle.	☑	Through Sectioning observe different stages of cell	☑	Through experiential learning.	To identify different types of hemocytes of cockroach and observe the development of tail in tadpole.
56	Elective Course – III: a) Economic Entomology	ZP232EC1	☑		☑		☑		To understand the structural and functional organization of cell organelles, flow of genetic information from DNA to protein and its regulations.
57	Elective Course – III:b) Parasitology	ZP232EC2	☑	Assignment on parasites, diseases caused and their control measures.			☑	Hands on training on laboratory safety.	To obtain knowledge on parasites.
58	Elective Course – III:c) Agrochemicals & Pest management	ZP232EC3	☑		☑		☑		To train in the identification of animal and plant pests.
59	Elective Course – IV:a) Research methodology	ZP232EC4	☑	Writing research articles for publication.			☑	Hands on training on instrumentation, writng article to journals and presentation.	To train in Research writing skill, handle instrument and apply histotechniques in research and to develop as an entrepreneur.
60	Elective Course - IV:b) Apiculture	ZP232EC5							To train in apiculture.
61	Elective Course – IV:c) Sericulture	ZP232EC6							To train in silkworm rearing.
62	Elective Lab Course – II: Economic Entomology & Research Methodology	ZP232EP1	☑	Field Visit to identify pests and collect data.	☑	Identify the pests and apply pest control methods	☑	Experiential learning on vermicomposting, apiculture, moriculture and sericulture.	To train in the identification of animal and plant pests.
63	Skill Enhancement Course I: Poultry Farming	ZP232SE1	☑	Field visit to poultry farm implicit the	☑	Visiting poultry farm to learn the establishment of	☑	Field visit to poultry farm implicit the knowledge on poulry rearing.	To train in rearing fowl.
64	Core IX: Physiology	PZ2031					☑	Assignments to make models of organs and organ systems.	To understand human Physiology.
65	Core X: Genetics and Evolution	PZ2032	☑	Experiential learning through visit to Rajiv Gandhi n Research Centre on			☑	Experiential learning through laboratory experiments.	To obtain knowledge on the basics of molecular genetics and evolution.
66	Core XI: Culture and Capture Fisheries	PZ2033	☑	Training on ornamental fishculture.	☑	Visit to aquafarm at Parakkai	☑	Internship on ornamental fish culture at Fisheries University , Parakkai.	To acquire knowledge on different types of aquatic organisms and construction of ponds.
67	Elective III: (a) General Endocrinology	PZ2034					☑	Organising seminar to know more about endocrine and related disorders.	To understand the physiology of Endocrine glands.
68	Elective III: (b) Forensic Biology	PZ2034	☑	Assignment: Criminal-based case study.			☑	Visit to the forensic laboratories to learn the methodology of investigation and sampling techniques	To obtain knowledge in Forensic science.
69	Research Project	PZ20PR					☑	Writing articles for journals.	To apply the biological method by formulating a hypothesis, gathering relevant data and analyzing the data to address the problem effectively.
70	Life Science for Competitive	PZ20S1	☑				☑		To train the students for competitive exams.
71	Core XII: Microbiology	PZ2041	☑	Hands on training on microbiological	☑	Visit to biofertilizer farm	☑	Internship and project develop the microbiological skills	To obtain knowledge on microbial culture.

72	Core XIII: Biotechnology and Nanobiology	PZ2042	☑	Hands on training on biological technques.	☑	Laboratory visit to observe biotechnological instruments.	☑	Hands on training on biological technques.	To understand the techniques in Biotechnology and Nanobiology.
73	Core IVX: Immunology	PZ2043	☑	Assignment to make models of immune cells and	☑	Apply immunological techniques in	☑	Practicals makes the students to understand the principles of experiments.	To obtain knowledge in immunological skills.
74	Core XV: Medical Laboratory Technology	PZ2044	☑	Visit to clinical laboratory to learn about instruments and analytical methods.	☑	Establishing Clinical Lab	☑	Analytical skill.	To train students in laboratory procedures, techniques, and ethical practices, enabling them to accurately analyze clinical samples, contribute to disease diagnosis, and
75	Elective IV: (a) Parasitology	PZ2046	☑	Laboratory visit to identify the	☑	Identify microscopical	☑	Experiential learning to enhance the knowledge obtaind from theory.	To obtain knowledge on parasites.
76	Elective IV: (b) Applied Entomology	PZ2046	☑	Field visit to identify the insect pest	☑	Hands on training on apiculture and sericulture	☑	Projects and internship enhances the knowledge on sericulture and apiculture.	To enrich the students with the knowledge on recent developments in soil and crop management.
77	Practical III Physiology and Genetics and Evolution	PZ20P3					☑	Practicals develop skills on physiology and biotechnological techniques.	To obtain knowledge on Physiology of organs and genetics.
78	Practical IV Microbiology and Biotechnology and	PZ20P4					☑	Practicals develop skills on Microbiology and Biotechnology and Nanobiology.	To develop skills in routine microbiological and biotechnological techniques.
79	Environmental Impact Assessment and Audit	PZ20S2					☑	Through seminar and research projects observe changes in the environment.	To understand the Importance of Environmental Impact Asssesment and Audit.
2022-2023									
80	Major Core I: Invertebate Zoology	ZC2011	☑	Field visit to Museum	☑	Visiting coconut farming	☑	Visit to the museum of preserved animals at Chervarkonam to learn the part of endoskeleton and preservation	To gain knowledge on classification of invertebrates.
81	Add on course: Professional English for Life Sciences 1	ALS201					☑	Language lab to learn English pronunciation.	To train in reading, writing skills and to obtain knowledge over PPT presentation.
82	Non Major Elective: Public Health and	ZNM201					☑	Assignment enhance the knowledge on Nutritional requirements in man.	To obtain knowledge on health and Hygiene.
83	Major Core II: Chordate Zoology	ZC2021	☑	Visit to museum and Zoological parks			☑	Visit to the museum of preserved animals at Chervarkonam to learn the part of endoskeleton and preservation	To understand the functional organization in Chordates.
84	Major Practical I Invertebrate Zoology and Chordate Zoology	ZC20P1					☑	Experiential learning through dissection and observe the internal organ system.	To understand the classification and structural organization in Invertebrates and Vertebrates.
85	Add on course: Professional English for Life Sciences	ALS202					☑	Training through language lab.	To train in reading, writing skills and to obtain knowledge over PPT presentation.
86	Non Major Elective: Common Ailments and Simple Remedies	ZNM202	☑	Assignment on Medicinal plants			☑	Prepare food for different ages.	To understand the common ailments and their simple home remedies.
87	Major Core III: Cell Biology	ZC2031					☑	Practicals to develop cytological staining techniques.	To develop skill on cytological techniques.
88	Major Elective I: (a) Biochemistry, Biophysics and	ZC2032	☑	Hands on training on analytical methods.			☑	Experiential learning to analyse the biochemicals.	To obtain knowledge on laboratory techniques in Biochmistry and Biostatistics.
89	Major Elective I: (b) Bioinformatics	ZC2033					☑	Retreive databases from NCBI.	To equip the students with skills needed to comprehensively explore biological databases, perform sequence alignments and analyses.
90	Major Elective I: (c) Wildlife Biology	ZC2034					☑	Through field visit observe wild animals.	To equip the students with knowledge on wildlife.
91	Allied Zoology II: General Zoology	ZA2031	☑	Assignment on structure and function of organ			☑	Field visit to observe and identify animals.	To obtain knowlegde on biodiversity of animals and its physiology, development,etc.
92	SLC-Ornamental Fish Culture	ZC20S1					☑	Hands on training to maintain an aquarium.	To train in ornamental fish culture.
93	Add on course: Professional English for Life Sciences	ALS203					☑	Language lab to learn pronunciation.	To train in reading, writing skills and to obtain knowledge over PPTpresentation.
94	Major Core IV: Genetics	ZC2041					☑	Demonstration on experiments related to heriditary.	To train in identifying heriditary-related disorders and syndromes.
95	Major Elective II: (a) Clinical Lab Technology	ZC2042	☑	Hands on training to learn biochemical analytical methods.			☑	Experiential learning to gain analytical skills.	To train in conducting a wide range of diagnostic tests, interpreting results, and contributing to effective healthcare delivery.
96	Major Elective II: (b) Animal Care and	ZC2043			☑	Establish animal farm.	☑	Field visit to Poultry farm and Cattle farm helpful to establish farms.	To train in animal husbandary.

97	Major Elective II: (c) Entomology	ZC2044					☑	Field visit to identify beneficial and pest insects.	To identify and categorize insects, pest insects and follow the appropriate control measures.
98	Major Practical II: Cell Biology and &Genetics; Elective	ZC20P2					☑	Hands on training on staining techniques and using microscope.	To train in cytological techniques, Biochemical analysis of etc., statistical calculation.
99	Allied Zoology II: Applied Zoology	ZA2041	☑	Hands on training on silk worm rearing.	☑	Field visit to maintain an Apiary and honey	☑	Hands on training to rear silkworm, honey bee and earthworm.	To obtain knowlegde on Beekeeping, Honey processing, Poultry farming.
100	Allied Zoology II: Practical General Zoology & Applied	ZA20P1					☑	Hands on training to explain the economic importance of animals and clinical procedures.	To develop the concept of Applied Zoology.
101	SLC- Nutrition and Dietetics	ZC20S2			☑		☑		To understand the dietary principles, nutritional needs, and their impact on human health, and contribute to improved overall well-
102	Add on course: Professional English for Life Sciences	ALS203					☑	Assignments to develop reading, writing and computer skills.	To train in reading, writing skills and to obtain knowledge over PPT presentation.
103	Major Core V: Physiology	ZC2051					☑	Assignments to make models of organs and organ systems.	To understand the concepts of functional anatomy of different
104	Major Core VI: Biotechnology	ZC2052	☑	Hands on training on biological technques.	☑	Laboratory visit to observe biotechnological instruments.	☑	Hands on training on biological technques.	To obtain knowledge in technical skills of Biotechnology.
105	Major Core VII: Ecology and	ZC2053					☑	Assignments to make models of organs and organ systems.	To gain knowledge on pollution and environment.
106	Reserch Project	ZC20PR					☑	Writing articles for journals.	To apply the biological method by formulating a hypothesis, gathering relevant data and analyzing the data to address the problem effectively.
107	Major Core VIII: Developmental	ZC2061					☑	Visit to museums to observe different development satages of an embryo.	To identify the variation in organ development.
108	Major Core IX: Immunology and Microbiology	ZC2062			☑	Apply immunological techniques in	☑	Assignment to make models of immune cells and microbes.	To understand the role of microorganisms in human health and disease and principles of
109	Major Core X: Organic Evolution	ZC2063					☑	Visit to museum to observe different stages of evolution.	To acquire a basic understanding of earth history and of the fossil record, including an appreciation for the time scale over which
110	Major Elective III: (a) Economic Zoology	ZC2064	☑	Field visit to observe poultry farm, silkworm and	☑	Field visit to observe Poultry farm, silkworm	☑	Field visit to observe Poultry farm, silkworm and aquarium.	To obtain knowledge in understanding animal husbandary.
111	Major Elective III: (b) Sericulture	ZC2065							To train in silkworm rearing.
112	Major Elective III: (c)Aquaculture	ZC2066							To obtain knowledge needed for aquaculture.
113	Major Practical III Physiology and Biotechnology	ZC20P3	☑	Experiential learning on factors which affect physiology and			☑	Experiential learning on factors which affect physiology and analytical biotechnology.	To train in Laboratory skills.
114	Major Practical IV Ecology and Toxicology and Organic Evolution	ZC20P4	☑	Experiential learning on the effect of physical factors on	☑	Analyze water samples.	☑	Experiential learning on the effect of physical factors on environmental and lives.	To train in water quality analysis and to understand the process of Evolution.
115	Major Practical V Developmental Zoology and Immunology and	ZC20P5	☑	Practicals to observe development process of chick			☑	Practicals to observe development process of Chick embyro.	To gain in-depth knowledge on different antibiotics from the viewpoint of targets, resistance mechanisms and spectrum
116	Skill Enhancement Course (SEC):Vermitechnolog	ZSK206	☑	Hands on training in Vermicomposting	☑		☑	Hands on training in Vermicomposting.	To obtain knowlegde on vermitechnology.
117	Core I: Biochemistry	PZ2011	☑	Laboratory visit to learn the analytical techniques.	☑	Laboratory visit to learn the operation and application of	☑	Experiential learning to analyse biochemical samples.	To gain employability in industrial, biomedical and research laboratories.
118	Core II: Ecobiology	PZ2012					☑	Assignments to make models of organs and organ systems.	To train in qualitative analysis of water.
119	Core III:Structure and Function of Invertebrates	PZ2013	☑	Visiting the zoological park at Thiruvananthapuram learning the diversity of			☑	Visiting the zoological park at Thiruvananthapuram identify the animals by their characters.	To understand the diversed anatomical features and physiological processes of invertebrate animals.

120	Core IV: Comparative Anatomy of Chordates	PZ2014	☑	Visiting the Zoological park at Thiruvananthapuram learning the diversity of			☑	Visiting the zoological park at Thiruvananthapuram identify the animals by their characters.	To grasp the anatomical similarities and variations among chordate species.
121	Elective I: (a) Animal Husbandry	PZ2015			☑	Field visit to poultry and cattle farm at Trinelveli	☑	Field visit to Poultry farm and Cattle farm at Trinelveli.	To obtain knowlegde on animal husbandary.
122	Elective I: (b) Health Care	PZ2016	☑				☑		To understand the concepts of health and hygiene.
123	Core V: Biostatistics, Computer Applications and	PZ2021	☑	Hands on training in applying computer to analyse			☑	Assignments to solve problems.	To obtain knowledge on statistics computer and bioinformatics.
124	Core VI: Cell and Molecular Biology	PZ2022	☑	Assignment on cancer and Cell Cycles.			☑	Practicals to develop the skill on cytological techniques.	To understand the structural and functional organization of cell organelles, flow of genetic information from DNA to protein and its regulations.
125	Core VII: Developmental Biology	PZ2023	☑	Observe chick embryo.			☑	Practicals to observe development process of Chick embyro.	To comprehend the concept of development of mammals.
126	Core VIII: Research Methodology	PZ2024					☑	Hands on training on instrumentation.	To train in Research writing skill, handle instrument and apply histotechniques in research and
127	Elective II: (a) Animal Behaviour and Chronobiology	PZ2025			☑	Field visit to birds sanctuary and pet shop to observe	☑	Field visit to observe behaviour in birds.	To understand the mechanism of animal behaviour.
128	Elective II: (b) Bioinformatics	PZ2026			☑		☑	Practicals to apply online tools of bioinformatics.	To obtain knowledge in Bioinformatics.
129	Practical I Biochemistry and	PZ20P1					☑	Practicals to analyse the biochemical and ecological factors.	To train in Biochemical analysis.
130	Practical II Biostatistics, Computer Applications and Bioinformatics and Cell and Molecular Biology	PZ20P2					☑	Practicals to collect data and analyse the data .	To train in instruments and statastical annalysis of data.
131	Core IX: Physiology	PZ2031					☑	Assignments to make models of organs and organ systems.	To understand human Physiology.
132	Core X: Genetics and Evolution	PZ2032	☑	Experiential learning through visit to Rajiv Gandhi n Research Centre on			☑	Experiential learning through laboratory experiments.	To obtain knowledge on the basics of molecular genetics and evolution.
133	Core XI: Culture and Capture Fisheries	PZ2033	☑		☑		☑	Internship on ornamental fish culture at Fisheries University, Parakkai.	To acquire knowledge on different types of aquatic organisms and construction of ponds.
134	Elective III: (a) General Endocrinology	PZ2034					☑	Organising seminar to know more about endocrine and related disorders.	To understand the physiology of Endocrine glands.
135	Elective III: (b) Forensic Biology	PZ2034	☑	Assignment: Criminal-based case study.			☑	Visit to the forensic laboratories to learn the methodology of investigation and sampling techniques	To obtain knowledge in Forensic science.
136	Reserch Project	PZ20PR					☑	Writing articles for journals.	To apply the biological method by formulating a hypothesis, gathering relevant data and analyzing the data to address the problem effectively.
137	Life Science for Competitive	PZ20S1	☑				☑		To train the students for competitive exams.
138	Core XII: Microbiology	PZ2041	☑	Hands on training on microbiological	☑	Visit to biofertilizer farm.	☑	Internship and project develop the microbiological skills.	To obtain knowledge on microbial culture.
139	Core XIII: Biotechnology and Nanobiology	PZ2042	☑	Hands on training on biological technques.	☑	Laboratory visit to observe biotechnological instruments.	☑	Hands on training on biological technques.	To understand the techniques in Biotechnology and Nanobiology.
140	Core IVX: Immunology	PZ2043	☑	Assignment to make models of immune cells and	☑	Apply immunological techniques in	☑	Practicals makes the students to understand the principles of experiments.	To obtain knowledge in immunological skills.
141	Core XV: Medical Laboratory Technology	PZ2044	☑	Visit to clinical laboratory to learn about instruments and analytical methods.	☑	Establish clinical lab.	☑	Analytical skill - Blood samples.	To train students in laboratory procedures, techniques, and ethical practices, enabling them to accurately analyze clinical samples, contribute to disease diagnosis, and
142	Elective IV: (a) Parasitology	PZ2046	☑	Laboratory visit to identify the	☑	Identify microscopical	☑	Experiential learning to enhance the knowledge obtaind from theory.	To obtain knowledge on parasites.

143	Elective IV: (b) Applied Entomology	PZ2046	☑		☑		☑		To enrich the students with the knowledge on recent developments in soil and crop management.
144	Practical III Physiology and Genetics and Evolution	PZ20P3					☑	Practicals develop skills on physiology and biotechnological techniques.	To obtain knowledge on Physiology of organs and genetics.
145	Practical IV Microbiology and Biotechnology and	PZ20P4					☑	Practicals develop skills on Microbiology and Biotechnology and Nanobiology.	To develop skills in routine microbiological and biotechnological techniques.
146	Environmental Impact Assessment and Audit	PZ20S2					☑	Through seminar and research projects observe changes in the environment.	To understand the Importance of Environmental Impact Asssesment and Audit.
2021-2022									
147	Major Core I: Invertebate Zoology	ZC2011	☑	Field visit to Museum.	☑	Visiting coconut farming.	☑	Visit to the museum of preserved animals at Chervarkonam to learn the part of endoskeleton and preservation	To gain knowledge on classification of invertebrates.
148	Add on course: Professional English for Life Sciences 1	ALS201					☑	Language lab to learn English pronunciation.	To train in reading, writing skills and to obtain knowledge over PPT presentation.
149	Non Major Elective: Public Health and	ZNM201					☑	Assignment enhance the knowledge on Nutritional requirements in man.	To obtain knowledge on health and Hygiene.
150	Major Core II: Chordate zoology	ZC2021	☑	Visit to museum and Zoological parks.			☑	Visit to the museum of preserved animals at Chervarkonam to learn the part of endoskeleton and preservation	To understand the functional organization in Chordates.
151	Major Practical I Invertebrate Zoology and Chordate Zoology	ZC20P1					☑	Experiential learning through dissectionobserve the internal organ system.	To understand the classification and structural organization in Invertebrates and Vertebrates.
152	Add on course: Professional English for Life Sciences	ALS202	☑	Through language lab develop the skill of pronunciation.			☑	Training through language lab.	To train in reading, writing skills and to obtain knowledge over PPTpresentation.
153	Non Major Elective: Common Ailments and Simple Remedies	ZNM202	☑	Assignment on Medicinal plants.			☑	Assignment on Medicinal plants.	To understand the common ailments and their simple home remedies.
154	Major Core III: Cell Biology	ZC2031					☑	Practicals to develop cytological staining techniques.	To develop skill on cytological technique.
155	Major Elective I: (a) Biochemistry, Biophysics and	ZC2032	☑	Hands on training on analytical methods.			☑	Experiential learning to analyse the biochemicals.	To obtain knowledge on laboratory techniques in Biochmistry and Biostatistics.
156	Major Elective I: (b) Bioinformatics	ZC2033					☑		To equip the students with skills needed to comprehensively explore biological databases, perform sequence alignments and analyses.
157	Major Elective I: (c) Wildlife Biology	ZC2034					☑		To equip the students with knowledge on wildlife.
158	Allied Zoology II: General Zoology	ZA2031	☑	Assignment on structure and function of organ			☑	Field visit to observe and identify animals.	To obtain knowlegde on Beekeeping, Honey processing, Poultry farming.
159	SLC-Ornamental Fish Culture	ZC20S1					☑	Hands on training to maintain an aquarium.	To train in ornamental fish culture.
160	Add on course: Professional English for Life Sciences	ALS203					☑	Language lab to learn English pronunciation.	To train in reading, writing skills and to obtain knowledge over PPT presentation.
161	Major Core IV: Genetics	ZC2041					☑	Demonstration on experiments related to heriditary.	To train in heriditary-related disorders and syndromes.
162	Major Elective II: (a) Clinical Lab Technology	ZC2042	☑	Hands on training to learn biochemical analytical methods.			☑	Experiential learning to gain analytical skills.	To train in conducting a wide range of diagnostic tests, interpreting results, and contributing to effective healthcare delivery.
163	Major Elective II: (b) Animal Care and	ZC2043			☑		☑		To train in animal husbandary.
164	Major Elective II: (c) Entomology	ZC2044					☑		To identify the pest insects and apply appropriate control measures.
165	Major Practical II: Cell Biology and &Genetics; Elective	ZC20P2					☑	Hands on training on staining techniques and using microscope.	To train in cytological techniques, Biochemical analysis of etc., statistical calculation.
166	Allied Zoology II: Applied Zoology	ZA2041	☑	Hands on training on silk worm rearing.	☑	Field visit to maintain an Apiary and	☑	Hands on training to rear silkworm, honey bee and earthworm.	To obtain knowlegde on Beekeeping, Honey processing, Poultry farming.
167	Allied Zoology II: Practical General Zoology & Applied	ZA20P1					☑	Hands on training to explain the economic importance of animals and clinicalprocedures.	To develop the concept of Applied Zoology.
168	SLC- Nutrition and Dietetics	ZC20S2			☑		☑		To understand the dietary principles, nutritional needs, and their impact on human health, and contribute to improved overall well-

169	Add on course: Professional English for Life Sciences	ALS203					☑	Assignments to develop reading, writing and computer skills.	To train in reading, writing skills and to obtain knowledge over PPT presentation.
170	Major Core V: Physiology	ZC1751					☑	Assignments to make models of organs and organ systems.	To understand the concepts of functional anatomy of different
171	Major Core VI – Developmental	ZC1752					☑	Visit to museums to observe different development satages of an embryo.	To identify the stages of embryonic development and the factors that
172	Major Core VII - Ecology and	ZC1753					☑	Assignments to make models of organs and organ systems.	To gain knowledge on pollution and Environment.
173	Major – Elective III (a) Aquaculture	ZC1754					☑	Visit to the aquafarms to trainin fish culture technique.	To obtain knowledge needed for aquaculture.
174	Major – Elective III (b) Sericulture	ZC1755	☑	Hands on training on silkworm	☑	Visiting silkworm industries.	☑		To train in silkworm rearing.
175	Major – Elective III (c) Marine Biology	ZC1756					☑		To understand the marine ecosystem.
176	Practical V Physiology and Developmental Zoology	ZC17P5	☑	Analyze different physiological factors which affect enzyme and observe chick embryo at different			☑	Experiential learning on factors which affect physiology and developmental biology .	To obtain knowledge on functioning of organs and embryonic development in animals.
177	* SBC -- Part IV - Vermitechnology	ZSK175	☑	Hands on training in vermiculture.	☑	Hands on training in vermiculture.	☑	Hands on training in vermiculture.	To train students in vermitechnology.
178	Major Core VIII - Biotechnology	ZC1761		Hands on training on biological technques.	☑	Laboratory visit to observe biotechnological instruments.	☑	Hands on training on biological technques.	To obtain knowledge in technical skills of Biotechnology.
179	Major Core IX - Immunology and Microbiology	ZC1762			☑	Apply immunological techniques in	☑	Assignment to make models of immune cells and microbes.	To understand the role of microorganisms in human health and disease and principles of
180	Major Core X - Evolutionary Biology	ZC1763					☑	Visit to museum to observe different stages of evolution.	To acquire a basic understanding of earth history and of the fossil record, including an appreciation for the time scale over which
181	Major – Elective IV (a) Applied Zoology	ZC1764	☑	Field viist to sericulture unit and vermicompost unit to learn the	☑	Field viist to sericulture unit and vermicompost	☑	Hands on training on sericulture, Aquarium and vermicomposting.	To enhance knowledge of applied subjects to hone students' skills to build a career and become an entrepreneur in the field of aquatic
182	Major – Elective IV (b) Poultry Science	ZC1765					☑		To train in Poultry farming.
183	Major – Elective IV (c) Pest Management	ZC1766					☑		To obtain knowledge on pest management.
184	Practical VI Ecology and Toxicology and Evolutionary Biology	ZC17P6	☑	Analyze water samples.	☑	Analyze water samples.	☑	Experiential learning on the effect of physical factors on environmental and lives.	To train in water quality analysis and understand the process of evolution.
185	Practical VII Biotechnology and Immunology and Microbiology	ZC17P7	☑	Practicals to learn the biotechnological technique.			☑	Hands on training on laboratory skills.	To obtain in-depth knowledge on different antibiotics from the viewpoint of targets, resistance mechanisms and spectrum
186	SBC - Project	ZSK170					☑	Analyse samples, Report Results, Publish Articles	
187	Core I: Biochemistry	PZ2011	☑	Laboratory visit to learn the analytical techniques.	☑	Laboratory visit to learn the operation and application of	☑	Experiential learning to analyse biochemical samples.	To gain employability in industrial, biomedical and research laboratories.
188	Core II: Ecobiology	PZ2012					☑	Assignments to make models of organs and organ systems.	To train in analyze the environemntal issues on different
189	Core III:Structure and Function of Invertebrates	PZ2013	☑	Visiting the zoological park at Thiruvananthapuram learning the diversity of			☑	Visiting the zoological park at Thiruvananthapuram identify the animals by their characters.	To understand the diversed anatomical features and physiological processes of invertebrate animals.
190	Core IV:Comparative Anatomy of Chordates	PZ2014	☑	Visiting the zoological park at Thiruvananthapuram learning the diversity of			☑	Visiting the zoological park at Thiruvananthapuram identify the animals by their characters.	To grasp the anatomical similarities and variations among chordate species.
191	Elective I: (a) Animal Husnbandry	PZ2015			☑	Field visit to Poultry and Cattle farm at Trinelveli	☑	Field visit to Poultry farm and Cattle farm at Trinelveli.	To obtain knowlegde on animal husbandary.
192	Elective I: (b) Health Care	PZ2016					☑		To understand the concepts of health and hygiene.
193	Core V: Biostatistics, Computer Applications and Bioinformatics	PZ2021	☑	Hands on training in applying computer to analyse			☑	Assignments to solve problems.	To obtain knowledge on statistics and , computer and bioinformatics.

194	Core VI: Cell and Molecular Biology	PZ2022	☑	Practicals to develop the skill on cytological techniques.			☑	Practicals to develop the skill on cytological techniques.	To understand the structural and functional organization of cell organelles, flow of genetic information from DNA to protein and its regulations.
195	Core VII: Developmental Biology	PZ2023	☑	Practicals to observe development			☑	Practicals to observe development process of Chick embyro.	To comprehend the concept of development of animals.
196	Core VIII: Research Methodology	PZ2024	☑	Hands on training on instrumentation.			☑	Hands on training on instrumentation.	To train in Research writing skill, handle instrument and apply histotechniques in research and
197	Elective II: (a) Animal Behaviour and Chronobiology	PZ2025			☑	Field visit to birds sanctuary and pet shop to observe	☑	Field visit to observe behaviour in birds.	To understand the mechanism of animal behaviour.
198	Elective II: (b) Bioinformatics	PZ2026			☑		☑		To obtain knowledge in Bioinformatics and the usage of
199	Practical I Biochemistry and	PZ20P1					☑	Practicals to analyse the biochemical and ecological factors.	To train in Biochemical analysis.
200	Practical II Biostatistics, Computer Applications and Bioinformatics and Cell and Molecular Biology	PZ20P2					☑	Practicals to collect data and analyse the data.	To train in instruments and statastical annalysis of data.
201	Core IX: Physiology	PZ2031					☑	Assignments to make models of organs and organ systems.	To understand structure and functions of organ systems.
202	Core X: Genetics and Evolution	PZ2032	☑	Experiential learning through visit to Rajiv Gandhi Research Centre on			☑	Experiential learning through laboratory experiments.	To obtain knowledge on the basics of molecular genetics and evolution.
203	Core XI: Culture and Capture Fisheries	PZ2033	☑	Training on ornamental fishculture.	☑	Visit to aquafarm at Parakkai.	☑	Internship on ornamental fish culture at Fisheries University, Parakkai.	To acquire knowledge on different types of aquatic organisms and construction of ponds.
204	Elective III: (a) General Endocrinology	PZ2034					☑	Organising seminar to know more about endocrine and related disorders.	To understand the physiology of Endocrine glands.
205	Elective III: (b) Forensic Biology	PZ2034					☑		To obtain knowledge in Forensic science and its importance in crime
206	Research Project	PZ20PR					☑	Writing articles for journals.	To apply the biological method by formulating a hypothesis, gathering relevant data and analyzing the data to address the problem effectively.
207	Life Science for Competitive	PZ20S1	☑				☑		To train the students for competitive exams.
208	Core XII: Microbiology	PZ2041	☑	Hands on training on microbiological techniques.	☑	Visit to biofertilizer farm.	☑	Internship and project develop the microbiological skills.	To obtain knowledge on microbial culture.
209	Core XIII: Biotechnology and Nanobiology	PZ2042	☑	Hands on training on biological technques.	☑	Laboratory visit to observe biotechnological instruments.	☑	Hands on training on biological technques.	To understand the techniques in Biotechnology and Nanobiology.
210	Core IVX: Immunology	PZ2043	☑	Assignment to make models of immune cells and	☑	Apply immunological techniques in	☑	Practicals makes the students to understand the principles of experiments.	To obtain knowledge in immunological skills.
211	Core XV: Medical Laboratory Technology	PZ2044	☑	Visit to clinical laboratory to learn about instruments and analytical methods.	☑	Establish clinical lab.	☑	Analyse blood samples.	To train students in laboratory procedures, techniques, and ethical practices, enabling them to accurately analyze clinical samples, contribute to disease diagnosis, and
212	Elective IV: (a) Parasitology	PZ2046	☑	Laboratory visit to identify the	☑	Identify microscopical	☑	Experiential learning to enhance the knowledge obtaind from theory.	To obtain knowledge on various parasites, their ifestation and
213	Elective IV: (b) Applied Entomology	PZ2046					☑		To train in the identification of animal and plant pests.
214	Practical III Physiology and Genetics and Evolution	PZ20P3					☑	Practicals develop skills on physiology and biotechnological techniques.	To obtain knowledge on Physiology of organs and genetics.
215	Practical IV Microbiology and Biotechnology and Nanobiology	PZ20P4	☑	Practicals develop skills on Microbiology and Biotechnology and	☑	Practicals develop skills on Microbiology and Biotechnology	☑	Practicals develop skills on Microbiology and Biotechnology and Nanobiology.	To develope skills in routine microbiological and biotechnological techniques.
216	Environmental Impact Assessment and Audit	PZ20S2					☑	Through seminar and research projects observe changes in the environment.	To understand the importance of Environmental Impact Asssesment and Audit.

217	Major Core I: Invertebate Zoology	ZC2011	☑	Field visit to Museum.	☑	Visiting coconut farming.	☑	Visit to the museum of preserved animals at Chervarkonam to learn the part of endoskeleton and preservation	To gain knowledge on classification of invertebrates.
218	Add on course: Professional English for Life Sciences 1	ALS201					☑	Language lab to learn English pronunciation.	To train in reading, writing skills and to obtain knowledge over PPTpresentation.
219	Non Major Elective: Public Health and	ZNM201	☑	Assignment on health chart			☑	Assignment enhance the knowledge on Nutritional requirements in man.	To obtain knowledge on the concepts of health and Hygiene.
220	Major Core II: Chordate zoology	ZC2021	☑	Visit to museum and Zoological parks.			☑	Visit to the museum of preserved animals at Chervarkonam to learn the part of endoskeleton and preservation	To understand the functional organization in Chordates.
221	Major Practical I Invertebrate Zoology and Chordate Zoology	ZC20P1					☑	Experiential learning through dissectionobserve the internal organ system.	To understand the classification and structural organization in Invertebrates and Vertebrates.
222	Add on course: Professional English for Life Sciences	ALS202	☑	Through language lab develop the skill of pronunciation .			☑	Training through language lab.	To train in reading, writing skills and to obtain knowledge over PPT presentation.
223	Non Major Elective: Common Ailments and Simple Remedies	ZNM202	☑	Assignment on Medicinal plants.			☑	Identify diseases and apply home made medicines.	To understand the common ailments and their simple home remedies.
224	Major Core III: Cell Biology	ZC1731					☑	Practicals to develop cytological staining techniques.	To develop skill on cytological techniques.
225	Major Elective I: (a) Biochemistry, Biophysics and Biostatistics	ZC1732	☑	Hands on training on analytical methods.			☑	Hands on training in lab experiments.	To obtain knowledge on laboratory techniques in Biochmistry and Biostatistics.
226	Major Elective I: (b) Clinical Lab Technology	ZC1733					☑		To train in conducting a wide range of diagnostic tests, interpreting results, and contributing to effective healthcare delivery.
227	Major Elective I: (c) Bioinstrumentation	ZC1734					☑		To understand the working principles of Bioinstrumentation.
228	Major Practical III Cell Biology and Biochemistry and	ZC17P3					☑	Hands on training on staining techniques and using microscope.	To train in cytological techniques, Biochemical analysis of etc., statistical calculation.
229	Allied Zoology – General Zoology	ZA1731					☑	Field visit to observe and identify animals.	To develop the concept of Applied Zoology.
230	SLC: Ornamental Fish Culture	ZC17S1			☑	Hands on training in Aquarium	☑	Hands on training in Aquarium construction and culture of fishes.	To train in Ornamental fish culture.
231	Major Core IV - Genetics	ZC1741					☑	Demonstration on experiments related to heriditary.	To train in heriditary related disorders and syndromes.
232	Major – Elective II (a) Biostatistics and Computer Applications	ZC1742	☑	Through practicals collect data and analyse the data.			☑	Experiential learning to analyse the biochemicals collecting data and processing the data..	To train in conducting a wide range of diagnostic tests, interpreting results, and contributing to effective healthcare delivery.
233	Major – Elective II (b) Bioinformatics	ZC1743			☑		☑	Practicals to apply online tools of bioinformatics.	To analyse databases.
234	Major – Elective II (c)Apiculture	ZC1744					☑	Hands on training on Apiculture.	To train in Apiculture.
235	Major Pactical IV Genetics and Biostatistics and Computer Applications	ZC17P4					☑	Practicals develop the skill of designing experiments in Genetics.	To train in Biostatistics and Computer Application.
236	Allied II – Theory: Applied Zoology	ZA1741			☑	Visit to Poultry Farm, Apiary and Aquafarm at Nagercoil, Marthandam and	☑	Visit to Poultry Farm, Apiary and Aquafarm at Nagercoil, Marthandam and Parakkai respectively.	To obtain knowledge in Apiary Poultry farming, Dairy Farming, Aquaculture and Sericulture.
237	Allied II - Practical	ZA17P1					☑	Hands on training on sericulture and Apiculture.	To understand the concept of Applied Zoology.
238	SLC: Nutrition and Dietetics	ZC17S2			☑		☑	Chart on balansed diet.	To understand the dietary principles, nutritional needs, and their impact on human health, and contribute to improved overall well-
239	Major Core V: Physiology	ZC1751					☑	Assignments to make models of organs and organ systems.	To understand the functional anatomy of different organs.
240	Major Core VI – Developmental	ZC1752					☑	Visit to museums to observe different development satages of an embryo.	To obtain knowledge on embyronic development of animals.
241	Major Core VII - Ecology and	ZC1753					☑	Assignments to make models of organs and organ systems.	To gain knowledge on pollution and Environment.
242	Major – Elective III (a) Aquaculture	ZC1754					☑	Visit to the aquafarms to trainin fish culture technique.	To train in Aquaculture.
243	Major – Elective III (b) Sericulture	ZC1755	☑	Hands on training on silkworm	☑	Visiting silkworm industries.	☑	Hands on training in silkworm rearing	To train in silkworm rearing.
244	Major – Elective III (c) Marine Biology	ZC1756					☑	Field visit to marine ecosystem to observe factos of marine ecosystem.	To understand the marine ecosystem.

245	Practical V Physiology and Developmental Zoology	ZC17P5	☑	Analyzing Biological factors which affect physiology and observing different			☑	Experiential learning on factors which affect physiology and developmental biology.	To obtain knowledge on functioning of organs and embryonic development in animals.
246	* SBC -- Part IV - Vermitechnology	ZSK175	☑	Hands on training in vermiculture .	☑	Hands on training in vermiculture.	☑	Hands on training in vermiculture.	To train students in vermitechnology.
247	Major Core VIII - Biotechnology	ZC1761	☑	Hands on training on biological technques.	☑	Laboratory visit to observe biotechnological instruments.	☑	Hands on training on biological technques.	To obtain knowledge in technical skills of Biotechnology.
248	Major Core IX - Immunology and Microbiology	ZC1762			☑		☑	Assignment to make models of immune cells and microbes.	To understand the role of microorganisms in human health and disease and principles of
249	Major Core X - Evolutionary Biology	ZC1763					☑	Visit to museum to observe different stages of evolution.	To acquire a basic understanding of earth history and of the fossil record, including an appreciation for the time scale over which
250	Major – Elective IV (a) Applied Zoology	ZC1764	☑	Field visit to sericulture unit and vermicompost unit to learn the	☑	Field visit to sericulture unit and vermicompost	☑	Hands on training on sericulture, Aquarium and vermicomposting.	To enhance knowledge of applied subjects to hone students' skills to build a career and become an entrepreneur in the field of aquatic
251	Major – Elective IV (b) Poultry Science	ZC1765					☑		To train in Poultry farming.
252	Major – Elective IV (c) Pest Management	ZC1766					☑	Field visit to identify beneficial and pest insects.	To obtain knowledge on pest management.
253	Practical VI Ecology and Toxicology and Evolutionary Biology	ZC17P6	☑	Visit to a pond nearby.	☑	Analyze Environmental factors.	☑	Experiential learning on the effect of physical factors on environmental and lives.	To train in water quality analysis and understand the process of evolution.
254	Practical VII Biotechnology and Immunology and Microbiology	ZC17P7	☑	Practicals to learn the biotechnological technique.			☑	Hands on training on laboratory skills.	To obtain in-depth knowledge on different antibiotics from the viewpoint of targets, resistance mechanisms and spectrum
255	SBC - Project	ZSK 176					☑		To formulate research questions, design research methodologies, and implement data collection and analysis techniques appropriate to
256	Core I: Biochemistry	PZ2011	☑	Laboratory visit to learn the analytical techniques.	☑	Laboratory visit to learn the operation and application of	☑	Experiential learning to analyse biochemical samples.	To gain employability in industrial, biomedical and research laboratories.
257	Core II: Ecobiology	PZ2012					☑	Assignments to make models of organs and organ systems.	To train in qualitative analysis of water.
258	Core III:Structure and Function of Invertebrates	PZ2013	☑	Visiting the zoological park at Thiruvananthapuram learning the diversity of			☑	Visiting the zoological park at Thiruvananthapuram identify the animals by their characters.	To understand the diversed anatomical features and physiological processes of invertebrate animals.
259	Core IV:Comparative Anatomy of Chordates	PZ2014	☑	Visiting the Zoological park at Thiruvananthapuram learning the diversity of			☑	Visiting the zoological park at Thiruvananthapuram identify the animals by their characters.	To grasp the anatomical similarities and variations among chordate species.
260	Elective I: (a) Animal Husnbandry	PZ2015			☑	Field visit to Poultry and Cattle farm at Trinelveli	☑	Field visit to Poultry farm and Cattle farm at Trinelveli.	To obtain knowlegde on animal husbandary.
261	Elective I: (b) Health	PZ2016					☑		To understand health and hygiene.
262	Core V: Biostatistics, Computer Applications and Bioinformatics	PZ2021	☑	Hands on training in applying computer to analyse			☑	Assignments to solve problems.	To obtain knowledge on statistics computer and bioinformatics.
263	Core VI: Cell and Molecular Biology	PZ2022	☑	Observe different stages of cell cycles.			☑	Practicals to develop the skill on cytological techniques.	To understand the structural and functional organization of cell organelles, flow of genetic information from DNA to protein and its regulations.
264	Core VII: Developmental Biology	PZ2023	☑	Observe developmental			☑	Practicals to observe development process of Chick embyro.	To comprehend the concept of development of mammals.
265	Core VIII: Research Methodology	PZ2024					☑	Hands on training on instrumentation.	To develop writing skill, handle instrument and apply histotechniques in research and
266	Elective II: (a) Animal Behaviour and Chronobiology	PZ2025			☑	Field visit to birds sanctuary and pet shop to observe behaviour of	☑	Field visit to observe behaviour in birds.	To understand the structural and functional organization of cell organelles, flow of genetic information from DNA to protein and its regulations.

267	Elective II: (b) Bioinformatics	PZ2026					☑	Practicals to apply online tools of bioinformatics.	To learn and apply different bioinformtic tools.
268	Practical I Biochemistry and	PZ20P1					☑	Practicals to analyse the biochemical and ecological factors.	To train in Biochemical analysis.
269	Practical II Biostatistics, Computer Applications and Bioinformatics and Cell and Molecular Biology	PZ20P2					☑	Practicals to collect data and analyse the data .	To train in instruments and statastical annalysis of data.
270	Core VII - Physiology	PZ1731					☑	Assignments to make models of organs and organ systems.	To understand the functional anatomy of different organs.
271	Core VIII - Immunology	PZ1732	☑	Hands on training in lab skills.	☑	Hands on training in lab experiments.	☑	Hands on training on immunological techniques.	To understand the role of microorganisms in human health and disease and principles of
272	Elective III - (a) General Endocrinology	PZ1733					☑	Identify deficiency diseases.	To understand the physiology of Endocrine glands.
273	Elective III - (b) Health Care	PZ1734					☑		To understand health and hygiene.
274	Practical III Physiology and Immunology	PZ17P3					☑	Hands on training. On immunological techniques.	To obtain knowledge on Physiology of organs and genetics.
275	Project	PZ17PR					☑	Writing articles for journals.	To apply the biological method by formulating a hypothesis, gathering relevant data and analyzing the data to address the problem effectively.
276	Life Science for Competitive Examinations I	PZ17S1					☑		To train the students for competitive exams.
277	Core IX - Microbiology	PZ1741	☑	Hands on training on microbiological techniques.	☑	Visit to biofertilizer farm.	☑	Internship and project develop the microbiological skills.	To develop skills in routine microbiological and biotechnological techniques.
278	Core X - Ecobiology	PZ1742	☑	Analyze water samples.			☑	Assignments to make models of ecosystems.	To gain knowledge on influence of environmental factors on orgainsms in different habitaits.
279	Core XI - Biotechnology and	PZ1743	☑	Hands on training on biological			☑	Hands on training on biological techniques.	To understand the techniques in Biotechnology and Nanobiology.
280	Elective IV - (a) Parasitology	PZ1744	☑	Laboratory visit to identify the	☑	Laboratory visit to identify the	☑	Experiential learning to enhance the knowledge obtaind from theory.	To identify different parasites, their infestations and control measures.
281	Elective IV (b) Medical Entomology	PZ1745	☑				☑	Project and assignment develops the knowledge of diseases.	To enrich knowledge on recent developments in soil and crop management.
282	Practical IV Microbiology and Biotechnology and	PZ17P4			☑	Identify Antibiotic Sensitivity of	☑	Hands on training in laboratory.	To develop skills in routine microbiological and biotechnological techniques.
283	Life Science for Competitive Examinations II	PZ17S2	☑		☑		☑		To train in Competitive Exam for Life science.
2019-2020									
284	Major Core I – Invertebrate Zoology	ZC1711	☑	Field visit to Museum.	☑	Visiting coconut farming.	☑	Visit to the museum of preserved animals at Chervarkonam to learn the part of endoskeleton and preservation	To understand the classification and general characters of invertebrates.
285	Major Practical I Invertebrate Zoology	ZC17P1					☑	Practicals develop skills of dissection, identification and observation of internal organs.	To understand the classification and general characters of invertebrates.
286	NMEC – Public Health and Hygiene (Interdisciplinary)	ZNM171	☑	Assignment on different diseases.			☑	Assignment enhance the knowledge on Nutritional requirements in man.	To obtain knowledge on health and Hygiene.
287	Major Core II – Chordate Zoology	ZC1721	☑	Visit to museum and zoological parks.			☑	Visit to the museum of preserved animals at Chervarkonam to learn the part of endoskeleton and preservation	To understand the functional organization in Chordates.
288	Major Practical II Chordate Zoology	ZC17P2	☑	Dissection on Organ system of			☑	Field visit to observe and identify animals.	To train in practical skill to identify animals.
289	NMEC -Common Ailments and Simple Remedies	ZNM172	☑	Assignment on medicinal plants develops its			☑	Assignment on medicinal plants develops its importance.	To understand the common ailments and their simple home remedies.
290	Major Core III: Cell Biology	ZC1731					☑	Practicals to develop cytological staining techniques.	To give exposure to the histological laboratories.
291	Major Elective I: (a) Biochemistry, Biophysics and Biostatistics	ZC1732	☑	Hands on training on analytical methods.			☑	Hands on training in lab experiments.	To obtain knowledge on laboratory techniques in Biochmistry and Biostatistics.
292	Major Elective I: (b) Clinical Lab Technology	ZC1733					☑	Experiential learning to gain analytical skills.	To train in conducting a wide range of diagnostic tests, interpreting results, and contributing to effective healthcare delivery.

293	Major Elective I: (c) Bioinstrumentation	ZC1734					☑	Lab visit to learn the instrumentation.	To understand the working principles of Bioinstrumentation.
294	Major Practical III Cell Biology and Biochemistry and	ZC17P3					☑	Hands on training on staining techniques and using microscope	To train in cytological techniques, Biochemical analysis of etc., statistical calculation.
295	Allied Zoology – General Zoology	ZA1731	☑	Assignment on Structure and Function of Organ			☑	Field visit to observe and identify animals.	To learn animal diversity, their role, physiological, embryological and environmental aspects.
296	SLC- Ornamental Fish Culture	ZC17S1			☑	Hands on training in Aquarium	☑	Hands on training in Aquarium construction.	To train in Ornamental fish culture.
297	Major Core IV - Genetics	ZC1741					☑	Demonstration on experiments related to heriditary.	To train in heriditary.
298	Major – Elective II (a) Biostatistics and Computer Applications	ZC1742	☑	Through practicals collect data and analyse the data.			☑	Experiential learning to analyse the biochemicals collecting data and processing the data.	To train in statistical analysis.
299	Major – Elective II (b) Bioinformatics	ZC1743					☑	Practicals to apply online tools of bioinformatics.	To equipe with skills needed to explore biological databases, perform sequence alignments and
300	Major – Elective II (c)Apiculture	ZC1744					☑	Hands on training on Apiculture.	To train in Apiculture.
301	Major Pactical IV Genetics and Biostatistics and Computer Applications	ZC17P4					☑	Practicals develop the skill of designing experiments in Genetics.	To train the usage of computer in biostatistical applications.
302	Allied II – Theory: Applied Zoology	ZA1741			☑	Establish Poultry Farm.	☑	Visit to Poultry Farm, Apiary and Aquafarm at Nagercoil, Marthandam and Parakkai respectively.	To obtain knowledge in Apiary Poultry farming, Dairy Farming, Aquaculture and Sericulture.
303	Allied II - Practical	ZA17P1					☑	Hands on training on sericulture and Apiculture.	To understand the concept of Applied Zoology.
304	SLC: Nutrition and Dietetics	ZC17S2			☑		☑	Chart on balansed diet.	To understand the dietary principles, nutritional needs, and their impact on human health, and contribute to improved overall well-
305	Major Core V: Physiology	ZC1751					☑	Assignments to make models of organs and organ systems.	To understand the functional anatomy of different organs.
306	Major Core VI – Developmental	ZC1752					☑	Visit to museums to observe different development satages of an embryo.	To obtain knowledge in the embryonic development of animals.
307	Major Core VII - Ecology and	ZC1753					☑	Assignments to make models of organs and organ systems.	To gain knowledge on pollution and Environment.
308	Major – Elective III (a) Aquaculture	ZC1754					☑	Visit to the aquafarms to trainin fish culture techniques.	To train in Aquaculture.
309	Major – Elective III (b) Sericulture	ZC1755	☑	Hands on training on silkworm	☑	Visiting silkworm industries.	☑	Hands on training in silkworm rearing.	To train in silkworm rearing.
310	Major – Elective III (c) Marine Biology	ZC1756					☑	Field visit to marine ecosystem to observe factos of marine ecosystem.	To understand the marine ecosystem.
311	Practical V Physiology and Developmental Zoology	ZC17P5	☑	Analyzing Biological factors which affect physiology and observing different			☑	Experiential learning on factors which affect physiology and developmental biology.	To obtain knowledge on functioning of organs and embryonic development in animals.
312	* SBC -- Part IV - Vermitechnology	ZSK175	☑	Hands on training in vermiculture.	☑	Hands on training in vermiculture.	☑	Hands on training in vermiculture.	To train students in vermitechnology.
313	Major Core VIII - Biotechnology	ZC1761	☑	Hands on training on biological technques.	☑	Laboratory visit to observe biotechnological instruments.	☑	Hands on training on biological technques.	To obtain knowledge in technical skills of Biotechnology.
314	Major Core IX - Immunology and Microbiology	ZC1762			☑	Apply immunological techniques in	☑	Assignment to make models of immune cells and microbes.	To understand the role of microorganisms in human health and disease and principles of
315	Major Core X - Evolutionary Biology	ZC1763					☑	Visit to museum to observe different stages of evolution.	To acquire a basic understanding of earth history and of the fossil record, including an appreciation for the time scale over which
316	Major – Elective IV (a) Applied Zoology	ZC1764	☑	Field visit to sericulture unit and vermicompost unit	☑	Culture Silk Worm.	☑	Hands on training on sericulture, Aquarium and vermicomposting.	To enhance the knowledge on culturing silkworm, economically important fishes and vermiculture.
317	Major – Elective IV (b) Poultry Science	ZC1765	☑	Field visit to poultry farm	☑		☑		To raise a poultry farm, following the guidelines.
318	Major – Elective IV (c) Pest Management	ZC1766					☑	Field visit to identify beneficial and pest insects.	To obtain knowledge on pest management.
319	Practical VI Ecology and Toxicology and Evolutionary Biology	ZC17P6	☑	Practicals to analyze water samples.	☑	Practicals to analyze water samples.	☑	Experiential learning on the effect of physical factors on environmental and lives.	To train to test the quality of water and to understand the process of evolution.

320	Practical VII Biotechnology and Immunology and Microbiology	ZC17P7	☑	Practicals to learn the biotechnological techniques.			☑	Hands on training on laboratory skills.	To develop the techniques in Biotechnology and Nanobiology.
321	SBC Project	ZC17PR					☑	Trained to collect data and analysis.	To apply the biological method by formulating a hypothesis,
322	Core I - Biochemistry	PZ1711	☑	Laboratory visit to learn the analytical techniques.	☑	Laboratory visit to learn the operation and application of	☑	Experiential learning to analyse biochemical samples.	To gain employability in industrial, biomedical and research laboratories.
323	Core II - Cell and Molecular Biology	PZ1712	☑	Observe different types of muscle fibres.			☑	Practicals develop the microscopical observation skills.	To understand the structural and functional organization of cell organelles and illustrate DNA and its expresiion to protein, protein sorting and trafficking.
324	Core III - Culture and Capture Fisheries	PZ1713	☑	Visit to the aquafarms at Parakkai to learn the ornamental fish culture.	☑	Visit to the aquafarms at Parakkai.	☑	Visit to the aquafarms at Parakkai.	To aquire knowledge on different types of aquatic organisms and construction of ponds, formulate the nutritional requirement of fishes and develop the breeding techniques.
325	Elective I - (a) Biosystematics and Biodiversity	PZ1714	☑	Visiting the zoological park at Thiruvananthapura m learning the diversity of animals.			☑	Visiting the zoological park at Thiruvananthapuram identify the animals by their characters.	To evaluate the importance, application, and practice of systematic biology outline the classification of animal kingdom based on international code of zoological nomenclature.
326	Elective I - (b) Cell Technology	PZ1715					☑		To understand the types and importance of different types of cells in ananimal models.
327	Practical I Biochemistry, Cell and Molecular Biolgy, Culture and Capture Fisheries	PZ17P1	☑	Hands on training in lab skills.	☑	Hands on training in lab skills.	☑	Hands on training in lab skills.	To identify the factors that challenge aquaculture and to train temporary mounting of cell and tissues and to estimate the biomolecules and demonstrate the bio-techniques.
328	Core IV - Biostatistics, Compuer Applications and Bioinformatics	PZ1721					☑	Practicals to collect data and analyse the data .	To obtain knowledge on statistics computer and bioinformatics.
329	Core V - Genetics and Evolution	PZ1722	☑	Experiential learning through visit to Rajiv Gandhi n Research Centre on chromosome and abnormalities.			☑	Experiential learning through laboratory experiments.	To obtain knowledge on the basics of molecular genetics and evolution.
330	Core VI - Research Methodology	PZ1723	☑	Writing research articles for publication.			☑	Hands on training on instrumentation.	To train in Research writing skill, handle instrument and apply histotechniques in research and develop as an entrepreneur.
331	Elective II - (a) Develomental Biology	PZ1724	☑	Assignment on Fertilization.			☑	Practicals to observe development process of Chick embyro.	To comprehend the concept of development of mammals.
332	Elective II - (b) Bioinformatics	PZ1725					☑	Practicals to apply online tools of bioinformatics.	To acquire knowledge on Bioinformatics and its Applications.
333	Practical II Biostatistics, Computer Applications and Bioinformatics, Genetics and Evolution and Research Methodology	PZ17P2	☑	Data Collection and Analysis.			☑	Practicals to collect data and analyse the data.	To train in instruments and statastical annalysis of data.
334	Core VII - Physiology	PZ1731					☑	Assignments to make models of organs and organ systems.	To develop skills on describing anatomy of different physiological systems at the tissue and cellular levels.
335	Core VIII - Immunology	PZ1732	☑	Hands on training in lab skills.	☑	Hands on training in lab experiments.	☑	Hands on training in lab.	To explain the role of immune cells and molecules and their immune responses.

336	Elective III - (a) General Endocrinology	PZ1733					☑	Identify deficiency diseases.	To discuss the principles of endocrine system, hormonal communication and neuroendocrine mechanism in animal.
337	Elective III - (b) Health Care	PZ1734					☑		To develop knowledge on health and hygiene.
338	Practical III Physiology and Genetics and Evolution	PZ17P3					☑	Hands on training.	To gain knowledge on the functioning of organ and organ systems.
339	Life Science for Competitive Examinations I	PZ17S1					☑		To train the students for competitive exams.
340	Project	PZ17PR					☑	Writing articles for journals.	To apply the biological method by formulating a hypothesis, gathering relevant data and analyzing the data to address the problem effectively.
341	Core IX - Microbiology	PZ1741	☑	Hands on training on microbiological techniques.	☑	Visit to biofertilizer farm.	☑	Internship and project develop the microbiological skills.	To develop the skills in routine microbiological and biotechnological techniques.
342	Core X - Ecobiology	PZ1742	☑	Visit to near by pond.			☑	Assignments to make models of ecosystems.	To train in analyzing the qualitative analysis of water.
343	Core XI - Biotechnology and Nanobiology	PZ1743	☑	Hands on training on biological technques.			☑	Hands on training on biological technques.	To develop the techniques in Biotechnology and Nanobiology.
344	Elective IV - (a) Parasitology	PZ1744					☑	Experiential learning to enhance the knowledge obtaind from theory.	To obtain knowledge on parasites.
345	Elective IV (b) Medical Entomology	PZ1745	☑	Hands on training on identifying insects.			☑	Project and assignment develops the knowledge of diseases.	To train in the identification of animal and plant pests.
346	Practical IV Microbiology and Biotechnology and Nanobiology	PZ17P4			☑	Culture microbes.	☑	Hands on training in laboratory.	To train in the microbila culture.
347	SLC:Life Science for Competitive Examinations II	PZ17S2	☑		☑		☑		To train in Competitive Exam for Life science.
348	CI: Professional skills for Teaching - Learning	MPZ181					☑	Training in listening and speaking skills.	To develop the skills of teaching and learning.
349	C2- Research Methodology	MPZ182	☑	Hands on training in lab skills.			☑	Through Projects developsthe skill of operating instruments.	To obtain knowledge on instrumentation.
350	C3: Paper II- Recent Trends in Zoology	MPZ183	☑	Seminar on Instruments.			☑	Writing articles for journals.	To develop the skills of applications of Biotechnology in Human welfare.
351	C4: Optional: In-depth study paper (a) Aquaculture	MPZ184	☑	Seminar on Construction of Pond			☑	Feed preparation.	To equip the practactical skill in culturing fihses and feed formations.
352	C4: Optional - In-depth study paper (b) Applied Entomology	MPZ185	☑	Project on Integrated Pest Control			☑	Identified the pest.	To carry out the field project on entomology and to identify pest.
353	C4: Optional: In-depth study paper (c) Environmental Biology	MPZ186	☑	Seminar on Environmental Factors.			☑	Hands on training.	To give hands on training in analytical methods.
354	C4: Optional: In-depth study paper (c) Applied Immunology and Microbiology	MPZ187	☑	Project on Lectins.			☑	Hands on training.	To develop the microbiological skills through projects.
355	Research Project	MPZ18D					☑	Writing articles for journals.	To apply the biological method by formulating a hypothesis, gathering relevant data and analyzing the data to address the problem effectively.