



Government Degree College, Eturnagaram

Department of Zoology.

Curriculum planning

Department of Zoology prepares Curriculum planning and implementation every year. In this planning classroom sessions, laboratory work, field experiences, etc., are included.

NOVEMBER 2019

Month & Date	Activity	Description
6 th to 11 th	Practical Examinations	I,III & V Semesters (According to University Almanac)
11 th	National Education Day	Conduct of Related Activities
13 th to 30 th	CBCS	Theory Examinations for I,III, & V Semesters (According to University Almanac)
14 th	Pandit Jawahar Lal Nehru Birthday/ Diabetes Day	Conduct of Related Activities
14 th -20 th	National Library Week	1. Organizing Program to inculcate Reading habits 2. Assignments to encourage Students to visit Libraries and use the resources to the maximum extent
1 st Week	IQAC	IQAC Meeting with all the Departments
	Career Guidance Cell	Conducting Coaching Classes for Students to Prepare for EdCET/PGCET/Competitive Examinations etc.,
2 nd Week	Review Meetings at different Levels	Review of Academic, Administrative and Financial Aspects.
3 rd Week	III Unit Exams – II & III Yr. Students	Conduct Examinations, Ensure Student Attendance and Record Marks
I Saturday	Staff Council Meeting	Principal Meeting with Heads of Departments to review previous month's Activities and plan for current month's Activities

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III Saturday	Staff Meeting	Staff Meeting with Principal
IV Saturday	Swachh Bharath	Cleaning of College Premises including Rooftops, Terraces, Overhead Tank & Sumps
November	Telangana Ku Haritaharam	Maintenance of Plants

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DECEMBER 2019

Month & Date	Activity	Description
1 st	AIDS Day	Conduct of Red Ribbon Club Conduct AIDS Awareness Programs in collaboration with District Officials
10 th	Human Rights Day	Participation and Conduct of Related Activities
24 th	National Consumer Day	Competitions & awareness Programs
I Week	IQAC	Meeting of IQAC Executive Body
	Career Guidance Cell	Conducting Coaching Classes for Students to Prepare for EdCET/PGCET/Competitive Examinations Etc.,
	Harivillu – Yuvatharagam	Organizing State Level Sports & Cultural Festival
	Staff Council Meeting	Principal Meeting with Heads of Departments to review previous month's Activities and plan for current month's Activities
I Saturday	Staff Meeting	Staff Meeting with Principal
III Saturday	Swacha Bharath	Cleaning of College Premises including Rooftops, Terraces, Overhead Tank & Sumps
	Telangana Ku Harithaharam	Maintenance of Plants


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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: II Semester: VI (DSC- 1F)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Immunology and Animal Bio-Technology.

Month of the semester: December 2018.

Reference books: 1. Kuby - Immunology 2. An Introduction to Immunology -Sharma.

Objectives & Specifications:

1. To understand the concept of Immunology.
2. To recognise the cells and organs participate in immunology.
3. To Differentiate the types of Immunity.
4. To understand Immune rejection from T & B Cells , Antigen and antibody structure and interactions.
5. To understand the monoclonal antibody production.

S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Immunology	10	1.1. Basic concepts of immunology; Cells of immune system; Primary and secondary Organs of immune system. 1.2. Types of Immunity - Innate and acquired. 1.3. Basic properties of antigens; Structure, function and types of an antibody. 1.4. B and T cell epitopes, haptens, adjuvants; Antigen-antibody reactions. 1.5. T-Cell and B-Cell activation; Monoclonal antibodies and their production. PRACTICALS: identification of blood groups.	Lecture cum demonstration-	PPTs, charts, investigations, backboard.	Completed.	

Swamy

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FEBRUARY 2020

Month & Date	Activity	Description
15 th	Job Mela	Job Mela to be organized at all ID Colleges
I Week	CPDC Meeting	Meeting of the CPDC to review and Discuss Various Matters
	IQAC	IQAC Meeting with All the Departments
II Week	Review Meeting at Different Levels	Review of Academic, Administrative and Financial Aspects
	Performance Improvement Activities	Revision and Remedial Classes to Needy Students
III Week	Parents Meeting	Teachers Meet the Parents
I Saturday	Staff Council Meeting	Principal Meeting with Heads of Departments to review previous month's Activities and plan for current month's Activities
III Saturday	Staff Meeting	Staff Meeting with Principal
February	Telangana Ku Harithaharam	Maintenance of Plants


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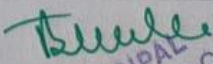
MARCH 2020

Month & Date	Activity	Description
8 th	International Women's Day	Conduct of Related Activities & Competitions for Students & Staff
I Week	Budget Meetings	Submission of all bills to DTO
	IQAC	IQAC Meeting with All the Departments
II Week	Review Meetings at Different Levels	Review of Academic, Administrative and Financial Aspects
23 rd	CBCS	II Internal Assessment Test (According to University Almanac)
31 st	CBCS	Last Day of Instruction (According to University Almanac)
Last Week	Stock Verification	Stock Verification of Laboratories & Libraries
I Saturday	Staff Council Meeting	Principal Meeting with Heads of Departments to review previous month's Activities and plan for current month's Activities
III Saturday	Staff Meeting	Staff Meeting with Principal
	Telangana Ku Harithaharam	Maintenance of Plants


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APRIL 2020

Month & Date	Activity	Description
1 st to 9 th	CBCS	Commencement of Practical Examinations (According to University Almanac)
5 th	Babu Jagjivan Ram's Birthday	Participation in Celebrating the Day
13 th to 30 th	CBCS	Commencement of Practical Examinations (According to University Almanac)
14 th	Dr.B.R.Ambedkar's Birthday	Participation in Celebrating the Day
I Week	Preparation of Annual Academic Performance Report	Prepare of College Annual Academic Performance Report (AAPR) and submit soft copy to CCE
	IQAC	Preparation of IQAC Report, Upload to college Website and submission of Softcopy to naac.tgce@gmail.com
	Preparation of College Annual Academic Plan for 2020-21	Preparation of College Annual Academic Plan for 2020-21
	Preparation of DRC Annual Activity plan for 2020-21	Preparation of DRC Annual Activity plan for 2020-21
II Week	Preparation of Financial Plan for 2020-21	Preparation of Details of Income through different Sources, Expenditure and other requirements etc. Preparation of necessary proposals along with enclosures for submission for financial assistance from different agencies like UGC, RUSA, State Govt. etc. Keeping Proposals ready for additional requirements of the college
I Saturday	Staff Council Meeting	Meeting of the Principal with Heads of Departments to review previous month's Activities and plan for current month's Activities
April	Career Guidance Cell	Conducting Coaching Classes for Students to Prepare for EdCET/PGCET/Competitive Examinations Etc.
	Telangana Ku Haritaharam	Maintenance of Plants


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MAY 2020

Month & Date	Activity	Description
May 1 st	Publicity Campaign	1 Release of College Brochure by Dist. Collector Campaigning through 1 Brochures, Flexies, Scrolling in Local TV, Door to door canvassing for online Admissions etc.
1 st to 30 th June	Summer Vacation	As per University Almanac
May	Student Help Desk	Establishment of Student Help Desk in the College and Online Registration of Students to Various Courses to be taken up
	Telangana Ku Harithaharam	Maintenance of Plants

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SEPTEMBER 2019

Month & Date	Activity	Description
5 th	Teacher's Day	Participation in Celebration of Teacher's Day
8 th	International Literacy Day	Organizing Inter/Intra/ College Fest
22 nd	Hindi Divas Celebrations	Participation and Organizing Related Activities
24 th Day	NSS Day	Participation in NSS Activities
	Extension & Outreach Activities	Organizing Guest Lectures/Field Visits/Social/Community Development Activities
	IQAC	IQAC Meeting with all the departments
II Week	Review Meetings at different Levels	Review of Academic, Administrative and Financial Aspects
II Week	Teacher Evaluation Process	<ul style="list-style-type: none"> • Collection of Student Feedback on Every Teacher by IQAC • Analysis and Action Taken by Principal • Documentation for Academic Audit
	Parents Meeting	Teachers Meet the Parents
	Jignasa Study Projects	Meeting of all Clubs – Review and Progress
III Week	CBCS	College Level Review Meeting on Implementation of CBCS
Last Week	II Unit Exams - II & III Years Students	Conduct of Examinations and Recording of Marks in the Proforma Provided
	Student Centric Activities	Classroom Seminars, Study Projects and Competitions etc., Remedial Instruction

B. Srinivas

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	College Social Responsibility Cell	Organizing Related Activities
I Saturday	Staff Council Meeting	Principal Meeting with Heads of Departments to review previous month's Activities and plan for current month's Activities
III Saturday	Staff Meeting	Staff Meeting with Principal
IV Saturday	Swacha Bharath	Cleaning of College Premises including Rooftops, Terraces, Overhead Tank & Sumps
September	Telangana Ku Haritaharam	Maintenance of Plants

B. Sankar

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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: II Semester: VI (DSC- 1F)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Immunology and Animal Bio-Technology.

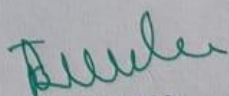
Month of the semester: March- 2019.

Reference books: Reference books: 1. Ashish S.Verma & Anchol Singh- Animal Bio Technology. 2. Advances in Animal Bio Technology- Springer.

Objectives & Specifications:

1. To understand the concept of R-DNA technology.
2. To understand importance, applications and production of Transgenic Animals.
- 3 To understand the production of Stem cell and their applications.

S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Animal Bio-Technology.	8	4.1 Recombinant DNA technology and its applications. 4.2 Transgenesis - Methods of Transgenesis. 4.3 Production of Transgenic animals. 4.4 Application of Transgenic animals in Biotechnology. 4.5 Stem cells -types and their applications.	Lecture cum demonstration.	PPTs, charts, back board.	Completed.	


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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: II Semester: VI (DSC-1F)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Immunology and Animal Bio-Technology.

Month of the semester: February 2019.

Reference books: Reference books: 1. Ashish S.Verma & Anchol Singh- Animal Bio Technology. 2. Advances in Animal Bio Technology- Springer.

Objectives & Specifications:

1. To understand the concept of Bio- Technology. And its applications & importance.
2. To understand cloning Vectors and their applications.
3. To understand the methods of cloning and animal cell culture.
4. To understand the one gene and one polypeptide theory.

S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Animal Bio-Technology	9	3.1 Concept and Scope of Animal Biotechnology. 3.2 Cloning vectors - Plasmids, Cosmids, Lambda bacteriophage, YAC, 3.3 Cloning- Cloning methods (Cell, Animal and Gene cloning) 3.4 Animal Cell culture - Equipment and materials for animal cell culture, 3.5 Applications of cell culture techniques. PRACTICALS: RBC count PRACTICALS histological study of sheep spleen	Lecture cum demonstration-	PPTs, , charts, , backboard.	Completed.	


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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc, B.Z.C. Academic year: 2018-19. Year of study: II Semester: VI (DSC-1F)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Immunology and Animal Bio-Technology.

Month of the semester: January- 2019.

Reference books: Reference books: 1. Kuby - Immunology 2. An Introduction to Immunology -Sharma.

Objectives & Specifications:

1. To understand the concept of Histo-compatibility complexes.
2. To understand and functions of Cytokines, Interferons and complement system.
3. To understand the Humoral and cell mediated Immunity.
4. To aware about Auto Immune Diseases and immune deficiency.
5. To aware about Vaccination.



S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Immunology	9	2.1 Structure and functions of major histocompatibility complex. 2.2 Basic properties and functions of Cytokines, Interferons and complement proteins. 2.3 Humoral and Cell mediated immunity. 2.4 Types of hyper sensitivity. 2.5 Concepts of autoimmunity and immunodeficiency; Introduction to Vaccines and types of Vaccines. PRACTICALS histological study of sheep spleen	Lecture cum demonstration.	PPTs, charts, back board.	Completed.	

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Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: II Semester: VI (DSC-1F)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Immunology and Animal Bio-Technology.

Month of the semester: December 2018.

Reference books: 1. Kuby - Immunology 2. An Introduction to Immunology -Sharma.

Objectives & Specifications:

1. To understand the concept of Immunology.
2. To recognise the cells and organs participate in Immunology.
3. To Differentiate the types of Immunity.
4. To understand Immune rejection from T & B Cells , Antigen and antibody structure and interactions.
5. To understand the monoclonal antibody production.

S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Immunology	10	1.1. Basic concepts of immunology; Cells of immune system; Primary and secondary Organs of immune system. 1.2. Types of Immunity - Innate and acquired. 1.3. Basic properties of antigens; Structure, function and types of an antibody. 1.4. B and T cell epitopes, haptens, adjuvants; Antigen-antibody reactions. 1.5. T-Cell and B-Cell activation; Monoclonal antibodies and their production. PRACTICALS; identification of blood groups.	Lecture cum demonstration-	PPTs, charts, investigations, backboard.	Completed.	

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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: III Semester: : VI (DSC-IF/B)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Aquatic Biology.

Month of the semester: March 2019.

Reference books: Reference books. 1. Textbook of Applied Aquatic Biology- B.B.Hosetti & Arvind Kumar.

Objectives & Specifications:

1. To understand the causes and and impacts of Aquatic pollution.
2. To understand the effects of Eutrophication.
3. To aware the conservation strategies and acts of prevention water pollution.

S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Aquatic Pollution.	5	4.1 Aquatic pollution - Causes of pollution: Agricultural, Industrial, Sewage, Thermal and Oil Spills. 4.2 Eutrophication. 4.3 Management and conservation. 4.4 Water pollution acts of India; Sewage treatment and water quality assessment - BOD and COD.	Lecture cum demonstration.	PPTS, charts, Field Visits, black board.	Completed	

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Curriculum planning and implementation.

Name of the Department: Zoology Course: B.Sc. B.Z.C. Academic year: 2018-19. Year of study: III Semester: VI
(DSC-IF/B)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Aquatic Biology.

Month of the semester: February 2019.

Reference books: Reference books: 1. Textbook of Applied Aquatic Biology- B.B.Hosetti & Arvind Kumar.

Objectives:

1. To understand the chemical factors of fresh water and continental shelf.
2. To identify and analyse the adaptations in deep sea organisms.
3. To understand the importance and de-merits of sea weeds.

S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Chemistry of Sea water and Aquatic adaptations of animals.	5	3.1 Salinity and density of sea water, 3.2 Continental shelf, 3.3 Adaptation of deep sea organisms. 3.4 Sea weeds.	Lecture cum demonstration.	PPTs, charts, backboard.	Completed.	

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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: III Semester: : VI (DSC-IF/B)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Aquatic Biology.

Month of the semester: January 2019.

Reference books: 1. Textbook of Applied Aquatic Biology- B.B.Hosetti & Arvind Kumar.

Objectives & Specifications:

- 1.To understand origin and structure of ecosystems in lakes.
2. To categorize the physic-chemical and biological factors and their roles in eco-system.
3. To understand the Various Nutrient cycles.

S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Fresh Water Eco system biology.	6	2.1. Lakes: Origin and classification of lakes, Lake as an Ecosystem, Lake morphometry. 2.2 Physico-chemical Characteristics of fresh water bodies: Light, Temperature, Thermal stratification, Dissolved Solids, Carbonate, Bicarbonates, Phosphates and Nitrates, Turbidity: dissolved gases (Oxygen, Carbon dioxide). 2.3 Nutrient Cycles and Lakes- Nitrogen, Sulphur and Phosphorous. 2.4 Streams: Different stages of stream development, Physico-chemical environment, Adaptation of hill-stream fishes.	Lecture cum demonstration	PPTs, charts, backboard & Field Visits.	Completed.	

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Name of the Department: Zoology Course: B.Sc. B.Z.C. Academic year: 2018-19. Year of study: III Semester: VI (DSC-IF/B)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Aquatic Biology.

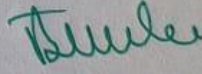
Month of the semester: December 2018.

Reference books: 1. Textbook of Applied Aquatic Biology- B.B.Hosetti & Arvind Kumar.

Objectives & Specifications:

1. To understand the concept of Aquatic Biomes and their functions.
2. To understand fresh and marine water ecosystems structure and interrelationships of organisms.
3. To understand the formation of Coral reefs.

S.No	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Aquatic biomes and Eco systems.	6	1.1. Brief introduction of the aquatic biomes. 1.2. Freshwater ecosystem (lakes, wetlands, streams and rivers), Estuaries, intertidal zones. 1.3. Oceanic pelagic zone, marine benthic zone. 1.4. Coral reefs.	Lecture cum demonstration. Field visit.	PPTs, charts, backboard.	Completed.	


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1	Bio-Chemistry of Carbohydrates, Proteins and Lipids.	15	4.1. Carbohydrates Classification and function of Carbohydrates 4.2. Carbohydrate metabolism - Glycolysis, Krebs Cycle, Electron Transport and Oxidative Phosphorylation. 4.3. Proteins: Classification of proteins based on functions and Chemical nature. 4.4. Protein Metabolism - Transamination, Deamination and Urea Cycle 4.5. Lipids: Classification of Lipids; Lipid Metabolism - Fatty acid synthesis and Fatty acid oxidation.	Lecture cum demonstration.	PPTs, specimens, charts, , backboard.	Completed	
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1	Endocrine system and Enzymology.	16	3.1 Endocrine glands - Structure, secretions and functions of Pituitary, Thyroid, Parathyroid, Adrenal glands and Pancreas. 3.2 Hormone action and concept of Secondary messengers; Male and Female Hormones; Hormonal control of Menstrual cycle in humans. 3.3 Concept and Mechanism of Homeostasis. 3.4 Osmoregulation - Water and ionic regulation by freshwater, brackish water and marine animals. 3.5 Enzymes- Definition, Classification, Inhibition and Regulation.	Lecture cum demonstration.	PPTs, charts, backboard.	Completed.	
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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc, B.Z.C. Academic year: 2018-19. Year of study: III Semester: V (DSC-IE)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Physiology & Bio Chemistry.

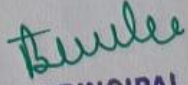
Month of the semester: September 2018.

Reference books: 1.Lehninger- Principles of Bio-chemistry. 2. U.Sathyanarayana- Bio-chemistry 3.Telugu academy semester-V text book.

Objectives & Specifications:

1. To understand the carbohydrates classification and functions .
2. To understand and molecular mechanism of Carbohydrates.
3. To understand the Classification and mechanism of Proteins.
4. To understand the Classification and mechanism of lipids.

S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: III Semester: V (DSC-IE)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Physiology & Bio Chemistry.

Month of the semester: August 2018.

Reference books: 1.Lehninger- Principles of Bio-chemistry. 2. U.Sathyanarayana- Bio-chemistry 3.Telugu academy semester-

V text book.

Objectives & Specifications:

1. To understand the structure of endocrine glands and mechanisms of hormones.
2. To understand action and regulation of hormonal action.
3. To understand the concept of mechanism of Homeostasis.
4. To understand the concept of Osmoregulation.
5. To classify the enzymes and mechanism.
6. To understand the mechanism of Carbohydrates, Proteins and lipids.



S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
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Uswamy
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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: III Semester: V (DSC-IE)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Physiology & Bio Chemistry.

Month of the semester: July 2018.

Reference books: 1.Lehninger- Principles of Bio-chemistry. 2. U.Sathyanarayana- Bio-chemistry 3.Telugu academy semester-V text book.

Objectives & Specifications:

1. To understand categorize and classify the animals based on the excretory products.
2. To understand the structure of human kidney & nephron structure and functions.
3. To understand the concept and mechanism of muscle contraction.
4. To understand the structure and functions of Neuron and nerve impulse propagation.

S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Excretion and Osmoregulation	16	2.1 Classification of Animals on the basis of excretory products- Ammonotelic, Uricotelic, Ureotelic. 2.2 Structure and function of Nephron; Urine formation, Counter current mechanism. 2.3 Types of Muscles; Ultra structure of skeletal muscle fibre; Sliding Filament theory, Muscle Contraction mechanism and energetics. 2.4 Structure of Neuron; Nerve impulse - Resting potential and Action potential and Conduction of Nerve impulse; 2.5 Synapse, types of synapses and Synaptic transmission. Practicals: Proteins and lipids estimation.	Lecture cum demonstration	PPTs, charts, backboard.	Completed.	

A. Sulekha
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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: III Semester: V (DSC-IE/A)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Applied Zoology.

Month of the semester: August 2018.

Reference books: Reference books: 1. Apiculture In India- Atur Rahman. & Kumar Ashok.

1. To understand the Economical importance of Apiculture & Vermi culture.
2. To understand methods of Culture & Vermi culture.
3. To understand the concept of mechanism of Homeostasis.
4. To aware about the diseases caused to apiculture.



S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Apiculture and Vermi culture.	5	3.1 Selection of Bee Species for Apiculture; Bee Keeping Equipment. 3.2 Methods of Extraction of Honey (Indigenous and Modern); Bee Diseases and Enemies. 3.3 Products of Apiculture Industry and its Uses (Honey, Bees Wax). 3.4 Introduction of Vermiculture and Vermicomposting; Vermiculture techniques; Bedding, Essential parameters for Vermiculture and Management. 3.4 Methods of Harvesting (Manual & Mechanical); Economic Importance of Vermiculture.	Lecture cum demonstration.	PPTs, charts, backboard.	Completed.	

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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: III Semester: V (DSC-IE/A)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Applied Zoology.

Month of the semester: July 2018.

Reference books: 1. Sericulture Handbook- Amaradev Singh & Ravinder Kumar.

Objectives & Specifications:

- 1.To understand Economic importance and societal dependence of Seri culture in India.
2. To understand the life cycle and Abiotic & Biotic Environmental Stress influence Seri culture..
3. To understand the pathology of Seri culture..
4. To aware about Seri culture status in India..



S.No.	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Seri culture.	8	2.1 Life cycle of <i>Bombyx mori</i> . 2.2 Structure of silk gland and secretion of silk. 2.3 Silkworm rearing technology; Spinning, harvesting and storage of cocoons. 2.4 Silk worm Pests and Diseases: Uzi fly; Protozoan, Viral, Fungal and Bacterial; Control and Prevention. 2.5 Prospects of Sericulture in India. practical	Lecture cum demonstration	PPTs, charts, backboard. Field Visits.	Completed.	

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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: III Semester: V (DSC-IE/A)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Applied Zoology.

Month of the semester: June 2018.

Reference books: 1. A Text Book Of Fishery Science And Indian Fisheries- C.B.L. Sri Vastva & Sushma Sri Vtsava.2. FISHERIES AND AQUACULTURE- Neelima Gupta & D.K.Gupta.

Objectives & Specifications:

1. To understand the importance Aquaculture.
2. To understand and differentiate Marine and fresh water fishes and prawn culture.
3. To understand the Fishery management and preservation techniques..
4. To understand the pathology of pisci culture.
5. To aware about Nutritional and Economical Importance of Aquaculture.

S.No	Name of the Unit/Major topic	Total periods required	Sub topic wise analysis and planning	Methodology of Teaching	Teaching aids and Techniques used	Whether Completed or not	Remarks
1	Aqua Culture.	9	1.1. Types of Fisheries; Culture of Fresh Water Fishes and Prawn. 1.2. Fresh water fishing gears and crafts; Induced Breeding. 1.3. Hatchery design and Management of fish and prawn; Transportation of fish and prawn seed. 1.4. Preservation, Processing and By-products of fishes. 1.5. Fish Diseases and control measures.	Lecture cum demonstration. Field visit.	PPTs, charts, backboard.	Completed.	

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1	Animal Bio-Technology	9	3.1 Concept and Scope of Animal Biotechnology. 3.2 Cloning vectors - Plasmids, Cosmids, Lambda bacteriophage, YAC, 3.3 Cloning- Cloning methods (Cell, Animal and Gene cloning) 3.4 Animal Cell culture - Equipment and materials for animal cell culture, 3.5 Applications of cell culture techniques.	Lecture cum demonstration-	PPTs, , charts, , backboard.	Completed.
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Curriculum planning and implementation.

Name of the Department: Zoology Course: BSc. B.Z.C. Academic year: 2018-19. Year of study: II Semester: VI (DSC-1F)

Name of the Lecturer/Asst.Professor: U.Swamy.

Name of the Paper: Immunology and Animal Bio-Technology.

Month of the semester: March- 2020.

Reference books: Reference books: 1. Ashish S.Verma & Anchol Singh- Animal Bio Technology. 2. Advances in Animal Bio Technology- Springer.

Objectives & Specifications:

1. To understand the concept of R-DNA technology.
2. To understand importance, applications and production of Transgenic Animals..
- 3 To understand the production of Stem cell and their applications.



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