

DEPARTMENT OF ZOOLOGY OF BERHAMPORE GIRLS COLLEGE

**Module wise Syllabus distribution of 4<sup>th</sup> SEM B.Sc. Zoology CCG (Program) Courses  
(January to June, 2020)**

**Details about Teachers**

<b>Sl No</b>	<b>Name of the Teacher</b>	<b>Designation</b>	<b>Contact No</b>	<b>E mail id</b>
1	<b>Bhaskar Mahanayak (BM)</b>	<b>Assistant Professor and Head of the Dept.</b>	<b>6295260820</b>	<b>bmahanayak@gmail.com</b>
2	<b>Rabiul Hoque (RH)</b>	<b>Assistant Professor</b>	<b>9609268155</b>	<b>rhrabiulhaque486@gmail.com</b>
3	<b>Sarmistha Chattopadhyay (SC)</b>	<b>Guest Lecturer</b>	<b>9735602335</b>	
4	<b>Tania Mondal (TM)</b>	<b>Guest Lecturer</b>	<b>8900548572</b>	<b>mondaltania20@gmail.com</b>
5	<b>Sanchari Chatterjee (SCC)</b>	<b>Guest Lecturer</b>	<b>9609549056</b>	<b>sanchar.sylvan@gmail.com</b>
6	<b>Debashree Konar Chowdhury (DKC)</b>	<b>Guest Lecturer</b>	<b>7031569916</b>	<b>debashreekonar@gmail.com</b>
7	<b>Somrita Rudra (SR)</b>	<b>Guest Lecturer</b>	<b>8016549943</b>	<b>somritarudra8@gmail.com</b>
8	<b>Deepsikha Mukherjee (DM)</b>	<b>Guest Lecturer</b>	<b>6294263865</b>	<b>deepsikhamukherjee103@gmail.com</b>
9	<b>Soumima Chatteraj (SMC)</b>	<b>Guest Lecturer</b>	<b>7044108774</b>	<b>soumimachatteraj007@gmail.com</b>

**Details about Non-teaching staff**

<b>Sl No</b>	<b>Name of the Staff</b>	<b>Designation</b>	<b>Contact No</b>	<b>Email Id</b>
1	<b>Mithu Hazra</b>	<b>Lab Attendant</b>	<b>9609252150</b>	
2	<b>Rajesh Nabik</b>	<b>Lab Attendant (Casual)</b>	<b>7872114179</b>	

**Module wise Syllabus distribution of B.Sc 4th SEM ZOOLOGY CCG (Program) Course  
(January to June, 2020)**

Course Code: ZOOL-CCG-T-04		Course Title: Physiology and Biochemistry		
<b>Theory (Total 60 Lectures)</b>				
Unit	Name of teacher	Topics	Sub-Topics	No of Classes
1	RH	<b>Digestion and Absorption of Food</b>	Structure and function of digestive glands; Digestion and absorption of carbohydrates, fats and proteins.	6
2	TM	<b>Functioning of Excitable Tissue (Nerve and Muscle)</b>	Structure of neuron, Propagation of nerve impulse (myelinated and non-myelinated nerve fibre); Structure of skeletal muscle, Mechanism of muscle contraction (Sliding filament theory.	6
3	SC	<b>Respiratory Physiology</b>	Transport of oxygen and carbon dioxide in blood, Factors affecting transport of gases.	6
4	RH	<b>Renal Physiology</b>	Functional anatomy of kidney, Mechanism and regulation of urine formation	6
5	SR	<b>Cardiovascular Physiology</b>	Structure of heart, Coordination of heartbeat, Cardiac cycle, ECG	5
6	SC	<b>Endocrine and Reproductive Physiology</b>	Structure and function of endocrine glands (pituitary, thyroid, parathyroid, pancreas, adrenal, ovaries, and testes), Brief account of Menstrual cycle.	5
7	TM	<b>Carbohydrates</b>	Glycolysis, Citric acid cycle	4
8	SR	<b>Lipids</b>	Fatty acid biosynthesis	4
9	RH	<b>Proteins</b>	Amino acids: Structure, Classification Proteins: Levels of organization; Protein metabolism: Urea cycle	6
10	SC	<b>Nucleic Acids</b>	Structure: Purines and pyrimidines, Nucleosides, Nucleotides, Nucleic acids	4
11	TM (Topic 1)	<b>Enzymes</b>	1.Classification; Cofactors; Specificity; Isozymes; Mechanism of enzyme action;	4
	SR (Topic 2)		2. Enzyme kinetics; Factors affecting rate of enzyme-catalyzed reactions.	4
<b>Practical (Total 30 Lectures)</b>				
1	SC		Preparation of temporary mounts: Blood film	7
2	SC		Estimation of haemoglobin using Sahli's haemoglobinometer	7
3	DM		Examination of permanent histological sections of mammalian duodenum, lung, kidney, thyroid, pancreas, adrenal, testis, ovary.	8

4	DM		Qualitative tests of functional groups in carbohydrates/proteins/lipids.	8
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Course Code: ZOOL-CCG-SEC-02		Course Title: Apiculture		
<b>Theory (Total 30 Lectures)</b>				
Unit	Name of teacher	Unit Title	Topics	No of Classes
1	SC	<b>Biology of Bees</b>	Biology and social organization of honey bees	4
2	SR	<b>Rearing of Bees</b>	Artificial Bee rearing (Apiary), Beehives – Newton and Langstroth; Bee Pasturage; Selection of Bee Species for Apiculture; Bee Keeping Equipment; Methods of Extraction of Honey (Indigenous and Modern).	8
3	SC	<b>Diseases and Enemies</b>	Bee Diseases and Enemies; Control and Preventive measures	6
4	SR	<b>Bee Economy</b>	Products of Apiculture Industry and its Uses (Honey, Bees Wax, Propolis), Pollen etc	6
<b>Field Visit</b>				
5	SC	<b>Entrepreneurship in Apiculture</b>	Report on a visit to an apiculture farm	6