

**Syllabus for  
FYBSc.  
Course – ZOOLOGY  
To be implemented from Academic year 2015-16  
SEMESTER - I**

COURSE CODE	UNIT	TOPICS	CREDITS	LECTURES/WEEK
USZO101	I	Wonders of animal world	2	1
	II	Biodiversity and its conservation		1
	III	Footsteps to follow		1
USZO102	I	Laboratory safety and Units of Measurement	2	1
	II	Animal Biotechnology		1
	III	Instrumentation		1
USZOP1	Practical based on both courses		2	6

**SEMESTER - II**

COURSE CODE	UNIT	TOPICS	CREDITS	LECTURES/WEEK
USZO201	I	Population Ecology	2	1
	II	Ecosystem		1
	III	National park and Sanctuaries		1
USZO202	I	Nutrition and Health	2	1
	II	Public health and Hygiene		1
	III	Common human Diseases		1
USZOP2	Practical based on both courses		2	6

**Syllabus for S. Y. B. Sc. Course: ZOOLOGY**  
**Credit Based Semester and Grading System**  
**(To be implemented from the Academic Year 2018-2019)**

**SEMESTER – III**

COURSE CODE	UNIT	TOPIC	CREDITS	LECTURES /WEEK
USZO301	I	Fundamentals of Genetics	2	1
	II	Chromosomes and Heredity		1
	III	Nucleic Acids		1
USZO302	I	Nutrition and Excretion	2	1
	II	Respiration and Circulation		1
	III	Control and Coordination of Life Processes, Locomotion and Reproduction		1
USZOE303A ELECTIVE 1	I	Ethology	2	1
	II	Parasitology		1
	III	Economic Zoology		1
USZOE303B ELECTIVE 2	I	Maintenance of Aquarium	2	1
	II	Agricultural, Household Pests and their Control		1
	III	Amazing Animals		1
USZOP3	Practicals based on all three courses		03	9

**Important Note:** College may choose either Elective 1 or Elective 2 for Semester III and Semester IV as their third course depending on the preference selected by majority of the students and endorsed by Head of the Department of Zoology and the Principal of the college.

## SEMESTER IV

COURSE CODE	UNIT	TOPIC	CREDITS	LECTURES /WEEK
USZO401	I	Origin and Evolution of Life	2	1
	II	Population Genetics and Evolution,		1
	III	Scientific Attitude, Methodology, Scientific Writing and Ethics in Scientific Research		1
USZO402	I	Cell Biology	2	1
	II	Endomembrane System		1
	III	Biomolecules		1
USZOE403A ELECTIVE 1	I	Comparative Embryology	2	1
	II	Aspects of Human Reproduction		1
	III	Pollution and its Effect on Organisms		1
USZOE403B ELECTIVE 2	I	Dairy Industry	2	1
	II	Sericulture		1
	III	Aquaculture		1
USZOP4	Practicals based on all three courses		03	9

**Important Note:** College may choose either Elective 1 or Elective 2 for Semester III and Semester IV as their third course depending on the preference selected by majority of the students and endorsed by Head of the Department of Zoology and the Principal of the college.

# Syllabus for T. Y. B. Sc. Course: ZOOLOGY

## Credit Based Semester and Grading System

### - with a Choice for Additional Credits

(To be implemented from the Academic Year 2018-2019)

#### SEMESTER - V THEORY

COURSE NO.	COURSE CODE	UNIT	TOPICS	CREDITS	LECTURES WEEK
11	USZO501	I	Principles of Taxonomy	2.5	1
		II	Kingdom: Animalia I		1
		III	Kingdom: Animalia II		1
		IV	Type study: <i>Sepia</i>		1
12	USZO502	I	Basic Haematology	2.5	1
		II	Applied Haematology		1
		III	Basic Immunology		1
		IV	Applied Immunology		1
13	USZO503	I	Mammalian Histology	2.5	1
		II	Toxicology		1
		III	General Pathology		1
		IV	Biostatistics		1
14	USZO504	I	Integumentary system and derivatives	2.5	1
		II	Human Osteology		1
		III	Muscles of long bones of Human limbs		1
		IV	Developmental biology of Chick		1
				<b>10</b>	<b>16</b>
<b>PRACTICAL</b>					
SZOP05	Practicals based on all four courses			<b>06</b>	<b>16</b>
<b>Total Number of Credits and Workload</b>				<b>16</b>	<b>32</b>
<b>Research Project</b>					
SZOR01	Additional Credits (Choice Based / Optional)			<b>1</b>	<b>No Workload for Teachers</b>

# Syllabus for T. Y. B. Sc. Course: ZOOLOGY

## Credit Based Semester and Grading System - with a Choice for Additional Credits (To be implemented from the Academic Year 2018-2019)

SEMESTER - VI					
THEORY					
COURSE NO.	COURSE CODE	UNIT	TOPICS	CREDITS	LECTURES/ WEEK
15	USZO601	I	Phylum Chordata: Group Protochordata and Group Euchordata I	2.5	1
		II	Group Euchordata II		1
		III	Group Euchordata III		1
		IV	Type study: Shark		1
16	USZO602	I	Enzymology	2.5	1
		II	Homeostasis		1
		III	Endocrinology		1
		IV	Animal Tissue Culture		1
17	USZO603	I	Molecular Biology	2.5	1
		II	Genetic Engineering		1
		III	Human Genetics		1
		IV	Bioinformatics		1
18	USZO604	I	Environment management	2.5	1
		II	Wildlife management		1
		III	Bioprospecting and Zoopharmacognosy		1
		IV	Zoogeography		1
				<b>10</b>	<b>16</b>
<b>PRACTICAL</b>					
USZOP06	Practicals based on all four courses			<b>06</b>	<b>16</b>
<b>Total Number of Credits and Workload</b>				<b>16</b>	<b>32</b>
<b>Research Project</b>					
USZOR02	Additional Credits (Choice Based / Optional)			<b>1</b>	<b>No Workload for Teachers</b>

**T. Y. B.Sc.**

(Credit Based Semester and Grading System)  
**Fishery Biology (Applied Component)**  
(to be implemented from the Academic Year 2017-2018)

**Semester V**

**Oceanography, Aquaculture Practices, Marketing and Finance**

**Theory (Any four units to be opted)**

Course	Unit	TOPIC	Credits	L/Week
USACFBIO501	1	Oceanography	2	4
	2	Crafts and Gear		
	3	Farming of Major Carps		
	4	Introduction to other Commercial Aquaculture Practices in Fresh Water		
	5	Culture of Shell fishes and Fin-Fish		
	6	Quality Control and Packaging		
	7	Marketing and Finance		
	8	Case Study and Simulation		
<b>Practical</b>				
USACFBIO5P1		Practicals based on Course <b>USACFBIO501</b>	2	4

**Semester VI**

**Marine resources, Post-harvest and Farm Engineering**

**Theory (Any four units to be opted)**

Course	Unit	TOPIC	Credits	L/Week
USACFBIO601	1	Marine Fin-fish of India	2	4
	2	Marine Shellfish of India		
	3	Nutrition		
	4	Diseases		
	5	Preservation and Processing		
	6	Byproducts and Value added Products		
	7	Farm Engineering		
	8	Open Unit		
<b>Practical</b>				
USACFBIO6P1		Practicals based on Course <b>USACFBIO601</b>	2	4