

## E-content

**F.Y.B.Sc. Zoology Course Title: Animal Diversity – II Course Code: ZO: 121**  
**Semester – II Dr. R S Kale**

Chapter	Title & Contents	Link
Chapter – 1	Phylum –Aschelminthes (PPT)	<a href="https://docs.google.com/presentation/d/1bULckwoNLbxHX3R7VVKRraMJOLmRx3x9n/edit?usp=sharing&amp;ouid=110358814521286428481&amp;rtpof=true&amp;sd=true">https://docs.google.com/presentation/d/1bULckwoNLbxHX3R7VVKRraMJOLmRx3x9n/edit?usp=sharing&amp;ouid=110358814521286428481&amp;rtpof=true&amp;sd=true</a>
	Phylum –Aschelminthes (Video Lecture -1 )	<a href="https://youtu.be/rK2UICP2Qms">https://youtu.be/rK2UICP2Qms</a>
Chapter – 2	Phylum – Annelida (PPT)	<a href="https://docs.google.com/presentation/d/1Yj87XBlqxBLQhEiHCVzq-MGbSKs9yEIS/edit?usp=sharing&amp;ouid=110358814521286428481&amp;rtpof=true&amp;sd=true">https://docs.google.com/presentation/d/1Yj87XBlqxBLQhEiHCVzq-MGbSKs9yEIS/edit?usp=sharing&amp;ouid=110358814521286428481&amp;rtpof=true&amp;sd=true</a>
Chapter - 3	Phylum- Arthropoda (PPT)	<a href="https://docs.google.com/presentation/d/1SWUCbSg4E_z1IpFvIoJsj_SJCAaU6bUD/edit?usp=sharing&amp;ouid=110358814521286428481&amp;rtpof=true&amp;sd=true">https://docs.google.com/presentation/d/1SWUCbSg4E_z1IpFvIoJsj_SJCAaU6bUD/edit?usp=sharing&amp;ouid=110358814521286428481&amp;rtpof=true&amp;sd=true</a>
Chapter - 4	Phylum- Mollusca (PPT)	<a href="https://drive.google.com/file/d/1v6UA8PM4hxYhUQtx51yh_lwrzfbbrVQ/view?usp=sharing">https://drive.google.com/file/d/1v6UA8PM4hxYhUQtx51yh_lwrzfbbrVQ/view?usp=sharing</a>

**S. Y. B. Sc. Zoology Course Title: Applied Zoology – II Course Code : ZO: 242 Sem – IV**

Chapter	Title & Contents	Link
Chapter – 1	Apiculture – (Video Lecture -1 )	<a href="https://drive.google.com/file/d/154cczPT05XCz5hZy_eUM71DQMpXkgXVL/view?usp=sharing">https://drive.google.com/file/d/154cczPT05XCz5hZy_eUM71DQMpXkgXVL/view?usp=sharing</a>
Chapter – 2	Apiculture – (Video Lecture -2 )	<a href="https://drive.google.com/file/d/1t5Di7fsef50ZW2qAE3hoI8O7w-oFTAja/view?usp=sharing">https://drive.google.com/file/d/1t5Di7fsef50ZW2qAE3hoI8O7w-oFTAja/view?usp=sharing</a>

**S. Y. B. Sc. (Zoology) ZO - 231 Animal Diversity III**

Class- S. Y. B. Sc.

Dr. K. T. Patil

Chapter	Title & Contents	Link
Chapter (1) <b>Introduction to Phylum Chordata</b>	<b>Introduction &amp; Basic</b> 1.1 Origin & Ancestry of Chordates	<a href="https://www.youtube.com/watch?v=SQpGt0ePdIM">https://www.youtube.com/watch?v=SQpGt0ePdIM</a>  <a href="https://www.youtube.com/watch?v=EFwMK5On-YI">https://www.youtube.com/watch?v=EFwMK5On-YI</a>
	1.2 Comparative account of fundamental characters of Chordates with Non Chordates	<a href="https://www.youtube.com/watch?v=y5MNDKB_x4E&amp;t=24s">https://www.youtube.com/watch?v=y5MNDKB_x4E&amp;t=24s</a>

	1.3 Salient features of Phylum Chordata. Classification of Phylum Chordata upto classes – Pisces, Amphibia, Reptilia, Aves, Mammalia	<a href="https://www.youtube.com/watch?v=DjmR5ytd1U&amp;t=38s">https://www.youtube.com/watch?v=DjmR5ytd1U&amp;t=38s</a>
Chapter (2) <b>Introduction to Group – Protochordata</b>	2.1 Salient features of Protochordata.	<a href="https://www.youtube.com/watch?v=S BaspRbDIUE&amp;t=62s">https://www.youtube.com/watch?v=S BaspRbDIUE&amp;t=62s</a>
	2.2 Salient features of subphyla with two examples each - Names only. Hemichordata – <i>Balanoglossus</i> and <i>Rhabdopleura</i> , Urochordata - <i>Herdmania</i> and <i>Salpa</i> , Cephalochordata – <i>Branchiostoma</i> (Amphioxus) and <i>Asymmetron</i> .	<a href="https://www.youtube.com/watch?v=ZOIemItIqyk&amp;t=876s">https://www.youtube.com/watch?v=ZOIemItIqyk&amp;t=876s</a>
Chapter (3) <b>Introduction to subphylum – Vertebrata</b>	3.1 Salient features of Vertebrata.	<a href="https://www.youtube.com/watch?v=n4zH-n2JDIA&amp;t=469s">https://www.youtube.com/watch?v=n4zH-n2JDIA&amp;t=469s</a>
	3.2 Introduction and General characters of sections with two examples - Names only. <i>Agnatha</i> , <i>Petromyzon</i> & <i>Myxine</i> & <i>Gnathostomata</i> – <i>Frog</i> & <i>Labeo</i> .	<a href="https://www.youtube.com/watch?v=ZOIemItIqyk&amp;t=876s">https://www.youtube.com/watch?v=ZOIemItIqyk&amp;t=876s</a>
Chapter (4) <b>Introduction to Class – Pisces</b>	4.1 Salient features of Class – Pisces. 4.2 Introduction and Salient features of sections with two examples - Names only. Class – Chondrichthyes – <i>Scoliodon</i> and <i>Chimaera</i> & Osteichthyes – <i>Labeo</i> and <i>Catla</i> 4.3 Types of Scales in Fishes. 4.4 Types of Fins in Fishes.	<a href="https://www.youtube.com/watch?v=dsjZdRIPHyw&amp;t=22s">https://www.youtube.com/watch?v=dsjZdRIPHyw&amp;t=22s</a> <a href="https://www.youtube.com/watch?v=wbtYwF32ERk&amp;t=21s">https://www.youtube.com/watch?v=wbtYwF32ERk&amp;t=21s</a> <a href="https://www.youtube.com/watch?v=UmaQcl6COZM">https://www.youtube.com/watch?v=UmaQcl6COZM</a> <a href="https://www.youtube.com/watch?v=s0yRbegVe0Y">https://www.youtube.com/watch?v=s0yRbegVe0Y</a> <a href="https://www.youtube.com/watch?v=nmDwtfO21d4&amp;t=114s">https://www.youtube.com/watch?v=nmDwtfO21d4&amp;t=114s</a>
Chapter (5) <b>Introduction to Class – Amphibia</b>	5.1 Salient features of Class – Amphibia. 5.2 Introduction to order – Apoda – <i>Ichthyophis</i> , <i>Urodela</i> <i>Salamandra</i> (Salamander) and <i>Annura</i> - <i>Rana</i> . 5.3 Parental care in Amphibia.	<a href="https://www.youtube.com/watch?v=WwIHpK3KXLg&amp;t=94s">https://www.youtube.com/watch?v=WwIHpK3KXLg&amp;t=94s</a> <a href="https://www.youtube.com/watch?v=n4zH-n2JDIA&amp;t=469s">https://www.youtube.com/watch?v=n4zH-n2JDIA&amp;t=469s</a>

**Class: M. Sc****ZOUT 111 BIO Chem .****Dr. A. K. Sonawane**

<b>Chapter</b>	<b>Title &amp; Contents</b>	<b>Link</b>
<b>Chapter 1 Introduction</b>	ZOUT 111 BIO Chem.chap 1	<a href="https://drive.google.com/file/d/1Ydnb_6J5MJ1Nc1SOnCYwPxZEEdfpZAMEm/view?usp=sharing">https://drive.google.com/file/d/1Ydnb_6J5MJ1Nc1SOnCYwPxZEEdfpZAMEm/view?usp=sharing</a>
<b>Chapter 2</b>	ZOUT 111 BIO Chem.chap 2	<a href="https://drive.google.com/drive/folders/1ajNY1npg4Lr2fw3cLfV4Ic--d3ThHJIA?usp=sharing">https://drive.google.com/drive/folders/1ajNY1npg4Lr2fw3cLfV4Ic--d3ThHJIA?usp=sharing</a>
<b>Chapter 3</b>	CHAP-3	<a href="https://drive.google.com/folderview?id=17W_Yyu8t5xlDmzPTjkkztjN8FoC4QU9u">https://drive.google.com/folderview?id=17W_Yyu8t5xlDmzPTjkkztjN8FoC4QU9u</a>
<b>Chapter 4</b>	CHAP-4	<a href="https://drive.google.com/folderview?id=1s4EVMFZALaxAbXKSDPfh9IYbGKrVPeTc">https://drive.google.com/folderview?id=1s4EVMFZALaxAbXKSDPfh9IYbGKrVPeTc</a>
<b>Chapter 5</b>	CHAP5	<a href="https://drive.google.com/folderview?id=1HQreiVMHMif_-xe5P6e6Ge82xYMP0u0r">https://drive.google.com/folderview?id=1HQreiVMHMif_-xe5P6e6Ge82xYMP0u0r</a>
<b>Chapter 6</b>	CHAP6	<a href="https://drive.google.com/folderview?id=1eXfPK6DAimpYbbNrL-in4Zork7Pqi9sM">https://drive.google.com/folderview?id=1eXfPK6DAimpYbbNrL-in4Zork7Pqi9sM</a>
<b>Chapter 7</b>	CHAP7	<a href="https://drive.google.com/file/d/16XkLqX2gUbSMoDBX7h519dm1ZWUWApCz/view?usp=drivesdk">https://drive.google.com/file/d/16XkLqX2gUbSMoDBX7h519dm1ZWUWApCz/view?usp=drivesdk</a>
<b>Chapter 8</b>	CHAP	<a href="https://drive.google.com/folderview?id=1TH0qH77ehiTdjagYWUkNmw">https://drive.google.com/folderview?id=1TH0qH77ehiTdjagYWUkNmw</a>

**M. Sc. I****ZOUT 112 Cell Biology****Dr A. K. Sonawane**

<b>Chapter</b>	<b>Title &amp; Contents</b>	<b>Link</b>
<b>Chapter 1 Introduction</b>	Introduction	<a href="https://drive.google.com/drive/folders/1qhHtk_DbTLGtPzoKvFyCXIHVWL7bXhdr?usp=sharing">https://drive.google.com/drive/folders/1qhHtk_DbTLGtPzoKvFyCXIHVWL7bXhdr?usp=sharing</a>
<b>Chapter 2</b>	CHAP-2	<a href="https://drive.google.com/drive/folders/1cNBHdjs_Avs1aU35GIs6UgADVKSgR8Y-?usp=sharing">https://drive.google.com/drive/folders/1cNBHdjs_Avs1aU35GIs6UgADVKSgR8Y-?usp=sharing</a>
<b>Chapter 3</b>	CHAP-3	<a href="https://drive.google.com/folderview?id=17W_Yyu8t5xlDmzPTjkkztjN8FoC4QU9u">https://drive.google.com/folderview?id=17W_Yyu8t5xlDmzPTjkkztjN8FoC4QU9u</a>
<b>Chapter 4</b>	CHAP-4	<a href="https://drive.google.com/folderview?id=1s4EVMFZALaxAbXKSDPfh9IYbGKrVPeTc">https://drive.google.com/folderview?id=1s4EVMFZALaxAbXKSDPfh9IYbGKrVPeTc</a>
<b>Chapter 5</b>	CHAP5	<a href="https://drive.google.com/folderview?id=1HQreiVMHMif_-xe5P6e6Ge82xYMP0u0r">https://drive.google.com/folderview?id=1HQreiVMHMif_-xe5P6e6Ge82xYMP0u0r</a>

Class MSc Name of Teacher: Ziya Husain

Course Code and Course Name: ZOUT 231 Animal Physiology –I

Chapter	Title & Contents	Link
Chapter No. 01 External & Internal Environment	External & Internal Environment	<a href="https://youtu.be/xmkt_iXjVAw">https://youtu.be/xmkt_iXjVAw</a>
	Homoeostasis	<a href="https://youtu.be/y8Q1j3mK_v4">https://youtu.be/y8Q1j3mK_v4</a>
	Acclimation, Acclimatization	<a href="https://youtu.be/WOiYLazbkTk">https://youtu.be/WOiYLazbkTk</a>
	Regulation of Homeostasis	<a href="https://youtu.be/QjvxTsC6KXo">https://youtu.be/QjvxTsC6KXo</a>
	Biological Clock	<a href="https://youtu.be/Owna5ZXQRRM">https://youtu.be/Owna5ZXQRRM</a>
Chapter No. 02 Membrane Physiology	Transport across plasma membrane Diffusion	<a href="https://youtu.be/UcFh4niAAqQ">https://youtu.be/UcFh4niAAqQ</a>
	Resting Membrane Potential	<a href="https://youtu.be/kxsNuRFL3UY">https://youtu.be/kxsNuRFL3UY</a>
	Action Potential in Neuron	<a href="https://youtu.be/MD68hDb6yBE">https://youtu.be/MD68hDb6yBE</a>
Chapter No 03 Physiology of Digestion	Concept of Balanced Diet	<a href="https://youtu.be/-HWsh5kmW2w">https://youtu.be/-HWsh5kmW2w</a>
	Digestion & Absorption in the GI tract : Carbohydrates, Lipid, Proteins	<a href="https://youtu.be/S9QowJ65BLQ">https://youtu.be/S9QowJ65BLQ</a>
	Absorption of Food	<a href="https://youtu.be/m8n4UxOvryA">https://youtu.be/m8n4UxOvryA</a>
	Control & Regulation of Digestion	<a href="https://youtu.be/JyVFbgrlrZs">https://youtu.be/JyVFbgrlrZs</a>
	Calorimetry & BMR	<a href="https://youtu.be/z_vnhKWTsm4">https://youtu.be/z_vnhKWTsm4</a>
Chapter NO. 04 Respiration	Internal & External Respiration	<a href="https://youtu.be/-Nv_Xh0egH4">https://youtu.be/-Nv_Xh0egH4</a>
	Anatomy of Respiratory System	<a href="https://youtu.be/jyUcxsgWuI0">https://youtu.be/jyUcxsgWuI0</a>

	Pulmonary Ventilation	<a href="https://youtu.be/Oes1FJir5Ck">https://youtu.be/Oes1FJir5Ck</a>
	Pulmonary Volumes	<a href="https://youtu.be/CKkawKBdM7I">https://youtu.be/CKkawKBdM7I</a>
	Transport of Gases	<a href="https://youtu.be/rnmU3UBmU3Y">https://youtu.be/rnmU3UBmU3Y</a>
	Gas Exchange & Gas Transport	<a href="https://youtu.be/rnmU3UBmU3Y">https://youtu.be/rnmU3UBmU3Y</a>
	Neuronal Control of Respiration	<a href="https://youtu.be/cNeJd1QHSfY">https://youtu.be/cNeJd1QHSfY</a>
Chapter No. 05 Muscle Physiology	Types of Muscles	<a href="https://youtu.be/D3KoVIRik9E">https://youtu.be/D3KoVIRik9E</a>
	Structure of Actin & Myosin	<a href="https://youtu.be/xPXWxvUrUwE">https://youtu.be/xPXWxvUrUwE</a>
	Mechanism of Muscle Contraction	<a href="https://youtu.be/mOr2vqFkPe8">https://youtu.be/mOr2vqFkPe8</a>
Chapter No. 06 Bioluminescence & Animal Electricity	Bioluminescence	<a href="https://youtu.be/XeVzTaPwKeI">https://youtu.be/XeVzTaPwKeI</a>
	Animal Electricity	<a href="https://youtu.be/h1Fj8asVZ6o">https://youtu.be/h1Fj8asVZ6o</a>
Chapter No. 07 Buoyancy	Fish Buoyancy, Swim Bladder, Air Bladder	<a href="https://youtu.be/li0fJ2T6Ae8">https://youtu.be/li0fJ2T6Ae8</a>

Course Code and Course Name: **ZOUT 111 Biochemistry**

Chapter	Title & Contents	Link
Chapter No. 01 Basics of chemistry	Basics of chemistry	<a href="https://youtu.be/i0BiMKez25w">https://youtu.be/i0BiMKez25w</a>
Chapter No. 02 Water	Chemistry of Water	<a href="https://youtu.be/F-ONkfSEnz4">https://youtu.be/F-ONkfSEnz4</a>
	Biological Buffer System	<a href="https://youtu.be/JpYkU5yhKyc">https://youtu.be/JpYkU5yhKyc</a>
Chapter No 03 Carbohydrates	Carbohydrates	<a href="https://youtu.be/o-Jr6hUtYFI">https://youtu.be/o-Jr6hUtYFI</a>
	Monosaccharides & Disaccharides	<a href="https://youtu.be/n3HVQqC_ne4">https://youtu.be/n3HVQqC_ne4</a>

	Oligosaccharides & Polysaccharides	<a href="https://youtu.be/7YUCT42Qy6o">https://youtu.be/7YUCT42Qy6o</a>
	Glycolysis	<a href="https://youtu.be/78iVmGIBVaI">https://youtu.be/78iVmGIBVaI</a>
	Kreb's Cycle	<a href="https://youtu.be/8EJX0rjg8-E">https://youtu.be/8EJX0rjg8-E</a>
	Electron Transport Chain	<a href="https://youtu.be/XnNIPH65Xzk">https://youtu.be/XnNIPH65Xzk</a>
	Beta Oxidation of Fatty Acids	<a href="https://youtu.be/r7VqaXa-wII">https://youtu.be/r7VqaXa-wII</a>
Chapter No. 03 Carbohydrates	Carbohydrates	<a href="https://youtu.be/o-Jr6hUtYFI">https://youtu.be/o-Jr6hUtYFI</a>
	Monosaccharides & Disaccharides	<a href="https://youtu.be/n3HVQqC_ne4">https://youtu.be/n3HVQqC_ne4</a>
	Oligosaccharides & Polysaccharides	<a href="https://youtu.be/7YUCT42Qy6o">https://youtu.be/7YUCT42Qy6o</a>
	Glycolysis	<a href="https://youtu.be/78iVmGIBVaI">https://youtu.be/78iVmGIBVaI</a>
	Kreb's Cycle	<a href="https://youtu.be/8EJX0rjg8-E">https://youtu.be/8EJX0rjg8-E</a>
	Electron Transport Chain	<a href="https://youtu.be/XnNIPH65Xzk">https://youtu.be/XnNIPH65Xzk</a>
	Beta Oxidation of Fatty Acids	<a href="https://youtu.be/r7VqaXa-wII">https://youtu.be/r7VqaXa-wII</a>
Chapter NO. 04 Lipids	Lipids	<a href="https://youtu.be/M9YYRqqzIIM">https://youtu.be/M9YYRqqzIIM</a>
Chapter No. 05 Vitamins	Vitamins	<a href="https://youtu.be/xZAmI_qfS8I">https://youtu.be/xZAmI_qfS8I</a>
Chapter No. 06 Amino Acids	Chapter No. 06 Amino Acids	<a href="https://youtu.be/yBUAngigt2s">https://youtu.be/yBUAngigt2s</a>
Chapter No. 07 Proteins	Ramachandran Plot	<a href="https://youtu.be/DNQVXTV--Nc">https://youtu.be/DNQVXTV--Nc</a>
	Protein Structure	<a href="https://youtu.be/DzOEIYQfkUw">https://youtu.be/DzOEIYQfkUw</a>
Chapter No. 08 Enzymes	Classification & Nomenclature	<a href="https://youtu.be/eUBc8Vxk9bc">https://youtu.be/eUBc8Vxk9bc</a>
	Factors affecting Enzyme Activity	<a href="https://youtu.be/U-9V5ZYbK-c">https://youtu.be/U-9V5ZYbK-c</a>

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T. Y. B. Sc. Subject Code: **ZY332: Cell biology** Prof. Dr. S. D. Patil

Chapter	Title & Contents	Link
Chapter 1	Cell biology Definitions and Scope:	<a href="https://youtu.be/EXfaFA8-No">https://youtu.be/EXfaFA8-No</a>
Chapter 2	Prokaryotic cell	<a href="https://youtu.be/ANo0x1IZWDc">https://youtu.be/ANo0x1IZWDc</a>
Chapter 3	Eukaryotic Cell	<a href="https://youtu.be/mBhgK40UUtU">https://youtu.be/mBhgK40UUtU</a>
Chapter 4	Plasma Membrane I	<a href="https://youtu.be/IOay-U_Hx0Q">https://youtu.be/IOay-U_Hx0Q</a>
Chapter 5	Plasma Membrane II	<a href="https://youtu.be/5di0d1A2L4g">https://youtu.be/5di0d1A2L4g</a>
Chapter 6	Nucleus I	<a href="https://youtu.be/jHbH8yyj50k">https://youtu.be/jHbH8yyj50k</a>
Chapter 7	Nucleus II	<a href="https://youtu.be/960p2AbUEA8">https://youtu.be/960p2AbUEA8</a>
Chapter 8	Cytoskeleton	<a href="https://youtu.be/nEUuGVlhHPs">https://youtu.be/nEUuGVlhHPs</a>
Chapter 9	Cell Cycle : Mitosis	<a href="https://youtu.be/aGDICkfbRlo">https://youtu.be/aGDICkfbRlo</a>
Chapter 10	Cell Cycle : Meiosis	<a href="https://youtu.be/tgsfwd4E5wk">https://youtu.be/tgsfwd4E5wk</a>
Chapter 11	Role of centriole in the cell division:	<a href="https://youtu.be/tpk2UzUfsug">https://youtu.be/tpk2UzUfsug</a>
Chapter 12	Cell Ageing & Cancer Cells	<a href="https://youtu.be/S7LqyZIWSC0">https://youtu.be/S7LqyZIWSC0</a>