



List of Courses which focuses on Professional Ethics, Gender, Human Values, Environment & Sustainability and other value framework

Department : Zoology

Programme Name : B.Sc.

Academic Year :2017-18

Courses which focuses on Professional Ethics, Gender, Human Values, Environment & Sustainability and other value framework:

Sr. No.	Course Code	Name of the Course
01.	AECC-EVS-I	Environmental Science-I
02.	AECC-EVS-II	Environmental Science-II
03.	ZOO-CC-XII	Environmental Biology

D. V. K. Bhatnagar

विभागाध्यक्ष
HEAD
जन्तु विज्ञान विभाग
Department of Zoology
गुरु घासीदास वि.वि., बिलासपुर
Guru Ghasidas Vishwavidyalaya, Bilaspur



Scheme and Syllabus

Department of Zoology, GGV, Bilaspur (CG)

Semester III:

Course type	Course Code	Title of Course	Credits	Hrs/ Wk	Hrs/ Sem
CC Zoology (H)	ZOO-CC-V	Genetics and Evolution	2	2	
	ZOO-CC-VI	Economic Zoology	2	2	
	ZOO-CC- Practical	Lab Course (V + VI)	2	4	
<i>Total Credits</i>			6		
CC Chemistry	CHEM-CC-III				
	CHEM-CC-IV Practical				
CC (optional) Botany/ Biotech.	BOT/ BT-CC-III				
	BOT/ BT-CC-IV Practical				
Foundation course/ Ability Enhancement Compulsory Course (AECC)	EVS-I	Environment Science- I/ DM			

Semester IV:

Course type	Course Code	Title of Course	Credits	Hrs/ Wk	Hrs/ Sem
CC Zoology (H)	ZOO-CC-VII	Microbiology and Immunology	2	2	
	ZOO-CC-VIII	Endocrinology and Developmental Biology	2	2	
	ZOO-CC- Practical	Lab Course (VII + VIII)	2	4	
<i>Total Credits</i>			6		
CC Chemistry	CHEM-CC-III				
	CHEM-CC-IV Practical				
CC (optional) Botany/ Biotech.	BOT/ BT-CC-III				
	BOT/ BT-CC-IV Practical				
Foundation course/ Ability Enhancement Compulsory Course (AECC)	EVS-II	Environment Science- I/ DM			

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Department of Zoology, GGV, Bilaspur (CG)

Semester V:

Course type	Course Code	Title of Course	Credits	Hrs/ Wk	Hrs/ Sem
CC	ZOO-CC-IX	Comparative Anatomy of Non-Chordates and Chordates	3	3	
	ZOO-CC-X	Animal Physiology	3	3	
	ZOO-CC-Practical	Lab Course (VII + VIII)	3	6	
	ZOO-CC-XI IDLS C	Biostatistics and Computer Applications	3	3	
DSE	ZOO-DSE-1	Elective-I (Endocrinology/ Fish Biology/ Toxicology)	3	3	
	Practical	Lab based on elective & Seminar to decide the project	3+2	6	
Total Credits			20		

Semester VI:

Course type	Course Code	Title of Course	Credits	Hrs/ Wk	Hrs/ Sem
CC	ZOO-CC-XII	Environmental Biology	3	3	
	ZOO-CC-XIII	Biotechniques	3	3	
	ZOO-CC-Practical	Lab Course (VII + VIII)	3	6	
	ZOO-CC-XIV	Molecular Biology and Genetic Engineering	3	3	
DSE	ZOO-DSE-2	Elective-II (Endocrinology/ Fish Biology/Toxicology)	3	3	
	ZOO-DSE-3	Dissertation/ Project work and Seminar	3+2	6	
Total Credits			20		

Note:

1. Groups offered by the Department for Integrated UG/ PG students at entry level

- Group I: Zoology, Chemistry and Botany (ZCB)
- Group II: Zoology, Chemistry and Biotechnology (ZCBT)

2. After the successful completion of IVth Semester students will have flexibility of changing of Core honors subject as per their interest and availability of the seats in the Department.

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Head
Department of Zoology
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Bilaspur (C.G.)



Department of Zoology, GGV, Bilaspur (CG)

B.Sc. (Hon's) Zoology SEMESTER - VI

ZOO-CC-XII: Environmental Biology

Unit 1: Ecosystem Components of ecosystems, Ecological factors: Abiotic and Biotic; Trophic levels, food chains and food webs, Ecological pyramids, Energy flow in ecological systems.	8 hrs
Unit 2: Population Ecology Population: Basic concepts, population characteristics – density, natality, mortality, age-structure, growth forms.	5 hrs
Unit 3: Community Ecology Community: Basic concepts, community structure, habitat & niche concept, Concept of keystone species and ecotone; Succession: Concepts of succession, Types of Succession.	8 hrs
Unit 4: Biodiversity and Conservation Biodiversity concept, types of biodiversity, biodiversity and human welfare, mega diversity zones and biodiversity hot spots with special reference to India. Concept of conservation, in situ and ex-situ methods.	8 hrs
Unit 5: Pollution Pollution: types, sources and effects of major pollutants of air, water, soil and noise, Control of pollution	7 hrs

Books Recommended

1. Reece: Campbell Biology (9th ed. 2011, Pearson, New York)
2. Odum: Fundamentals of Ecology (2008, Indian Edition, Brooks/Cole)
3. Henry Joseph: Environmental Studies (2005, Tata McGraw Hill Publ. Co. Ltd.)
4. Primack: A primer of conservation biology (3rd ed. 2004, Sinauer Associates, Massachusetts)
5. Raven and Berg: Environment (3rd ed. 2001, Harcourt College Publishers, New York)
6. Ricklefs: Ecology, (5th ed. 2000, Chiron Pres)
7. Krebs: Ecology, 6th ed. 2001, Benjamin Cummings)


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