

Approved in BOS meeting in the
Subject of ZOOLOGY held on 12.6.2013

Annexure-I of
BOS Meeting

**DEPARTMENT OF BIOSCIENCES
HIMACHAL PRADESH UNIVERSITY**

SYLLABI AND COURSES IN THE SUBJECT OF ZOOLOGY FOR B. Sc.
WITH MAJOR IN ZOOLOGY AND MINOR ELECTIVE IN ZOOLOGY

June 2013 Onwards

(A) Structure Outline of Major in Zoology (Minimum Credits to be Earned=56)

Semester	Course Code	Course Type	Course Name	Credit(s)/week	Cumulated Credits Category-wise
I (Odd)		Compulsory Course I	To be Selected from the list of Compulsory Courses	3	Compulsory – 6 Core – 8 Elective – 8 GI & H – 1 Total – 23
		Compulsory Course II (Skill Based)	To be Selected from the list of Compulsory Courses (Skill Based)	3	
	BSCZOO0101	Major Core Course I	Invertebrates I	3	
	BSCZOO0102	Major Core Course II	Invertebrates II	3	
		Minor Elective Course I (a)	To be Selected from the list for Minor Elective Subject other than zoology	3	
		Minor Elective Course I (b)	To be Selected from the list for Minor Elective Subject other than zoology	1	
	BSCZOO0101(P)	Major Core Lab Course I	Invertebrates I	1	
	BSCZOO0102(P)	Major Core Lab Course II	Invertebrates II	1	
		Minor Elective Lab Course I (a)	To be Selected from the list for Minor Elective Subject other than zoology	1	
		Minor Elective Lab Course I (b)	To be Selected from the list for Minor Elective Subject other than zoology	1	
	GI and H Course I	To be Selected from the list GI and Hobby Courses	1		
II (Even)		Compulsory Course III	To be Selected from the list of Compulsory Courses	3	Compulsory – 6 (12) Core – 8 (16)

Semester	Course Code	Course Type	Course Name	Credit(s)/week	Cumulated Credits Category-wise
		Compulsory Course IV(Skill Based)	To be Selected from the list of Compulsory Courses (Skill Based)	3	Elective – 8 (16) GI & H – 1 (2) Total 23 (46)
	BSCZOO0203	Major Core Course III	Biology of Chordates I	3	
	BSCZOO0204	Major Core Course IV	Biology of Chordates II	3	
		Minor Elective Course II (a)	To be Selected from the list for Minor Elective Subject other than zoology	3	
		Minor Elective Course II (b)	To be Selected from the list for Minor Elective Subject other than zoology	3	
	BSCZOO0203(P)	Major Core Lab Course III	Biology of Chordates I	1	
	BSCZOO0204(P)	Major Core Lab Course IV	Biology of Chordates II	1	
		Minor Elective Lab Course II (a)	To be Selected from the list for Minor Elective Subject other than zoology	1	
		Minor Elective Lab Course II ()	To be Selected from the list for Minor Elective Subject other than zoology	1	
	GI and H Course II	To be Selected from the list GI and Hobby Courses	1		
III (Odd)		Compulsory Course V	To be Selected from the list of Compulsory Courses	3	Compulsory – 6 (18) (Complete) Core – 8 (24) Elective – 8 (24) GI & H – 1 (3) (Complete) Total 23 (69)
		Compulsory Course VI	To be Selected from the list of Compulsory Courses (Skill Based)	3	
	BSCZOO0305	Major Core Course V	Developmental Biology	3	
	BSCZOO0306	Major Core Course VI	Animal Physiology	3	
		Minor Elective Course III (a)	To be Selected from the list for Minor Elective Subject other than zoology	3	
		Minor Elective Course III(b)	To be Selected from the list for Minor Elective Subject other than zoology	3	

Semester	Course Code	Course Type	Course Name	Credit(s)/week	Cumulated Credits Category-wise
	BSCZOO0305(P)	Major Core Lab Course V	Developmental Biology	1	
	BSCZOO0306(P)	Major Core Lab Course VI	Animal Physiology	1	
		Minor Elective Lab Course III(a)	To be Selected from the list for Minor Elective Subject other than zoology	1	
		Minor Elective Lab Course III(b)	To be Selected from the list for Minor Elective Subject other than zoology	1	
		GI and H Course III	To be Selected from the list GI and Hobby Courses	1	
IV (Even)	BSCZOO0407	Major Core Course VII	Cytogenetics	3	Core – 12 (36) Elective – 8 (32) Core / Elective (additional) - 4 Total 24 (93)
	BSCZOO0408	Major Core Course VIII	Evolutionary Biology	3	
	BSCZOO0409	Major Core Course IX	Cell Biology	3	
		Minor Elective Course IV (a)	To be Selected from the list for Minor Elective Subject other than Physics	4	
		Minor Elective Course IV (b)	To be Selected from the list for Minor Elective Subject other than Physics	4	
	BSCZOO0407(P)	Major Core Lab Course VII	Cytogenetics	1	
	BSCZOO0408(P)	Major Core Lab Course VIII	Evolutionary Biology	1	
	BSCZOO0409(P)	Major Core Lab Course IX	Cell Biology	1	
		Minor Elective Lab Course IV (a)	To be Selected from the list for Minor Elective Subject other than zoology	1	
		Minor Elective Lab Course IV(b)	To be Selected from the list for Minor Elective Subject other than zoology	1	
		Core / Elective Course (Additional)*		4	
V (Odd)	BSCZOO0510	Major Core Course X	Biochemistry	3	Core – 12 (48) Elective – 8

Semester	Course Code	Course Type	Course Name	Credit(s)/week	Cumulated Credits Category-wise
	BSCZOO0511	Major Core Course XI	Biotechnology	3	(40) (Complete) Core / Elective (additional) - 4 Total 24 (117)
	BSCZOO0512	Major Core Course XII	Molecular Biology	3	
		Minor Elective Course V(a)	To be Selected from the list for Minor Elective Subject other than Physics	3	
		Minor Elective Course V(b)	To be Selected from the list for Minor Elective Subject other than Physics	3	
	BSCZOO0510(P)	Major Core Lab Course X	Biochemistry	1	
	BSCZOO0511(P)	Major Core Lab Course XI	Biotechnology	1	
	BSCZOO0512(P)	Major Core Lab Course XII *	Molecular Biology	1	
		Minor Elective Lab Course V (a)	To be Selected from the list for Minor Elective Subject other than zoology	1	
		Minor Elective Lab Course V (b)	To be Selected from the list for Minor Elective Subject other than zoology	1	
	Core / Elective Course (Additional)*	Any one of the Additional or open elective courses	4		
VI (Even)	BSCZOO0513	Major Core Course XIII	Ecology	3	Core – 8 (56) Core / Elective (additional) – 20* Total 28 (145)
	BSCZOO0514	Major Core Course XIV	Applied Zoology	3	
	BSCZOO0513(P)	Major Core lab Course XIII	Ecology	1	
	BSCZOO0514(P)	Major Core lab Course XIV	Applied Zoology	1	
	BSC(Or Other than Science) (Zooor other than zoology) 06**	Core / Elective Course (Additional)*	Any one of the Additional or open elective courses	4	
	BSC(Or Other than Science) ZOO(or other than zoology) 06**	Core / Elective Course (Additional)*	Any one of the Additional or open elective courses	4	
	BSC(Or Other than Science) ZOO(or other than zoology) 06**	Core / Elective Course (Additional)*	Any one of the Additional or open elective courses	4	
	BSC(Or Other than Science) ZOO(or other than zoology) 06**	Core / Elective Course (Additional)*	Any one of the Additional or open elective courses	4	

Semester	Course Code	Course Type	Course Name	Credit(s)/week	Cumulated Credits Category-wise
	BSC(Or Other than Science) ZOO(or other than zoology) 06**	Core / Elective Course (Additional)*	Any one of the Additional or open elective courses	4	

***Additional Elective Courses offered by ZOOLOGY Department (can be chosen for earning credits over and above 56 Major subject credits, 40 Minor elective credits, 9 (Min.) Compulsory course credits and 1 (Min.) 3G I&H Course credits i.e. total 106 credits; for getting B.Sc. Degree a learner has to earn a minimum of 120 credits.)**

Semester	Course Code	Course Type	Course Name	Credit(s)/week	Cumulated Credits Category-wise
VI	BSCZOO0615	Core / Elective Course (Additional)*	Parasitology	4	
VI	BSCZOO0616	Core / Elective Course (Additional)*	Radiation Biology	4	
VI	BSCZOO0617	Core / Elective Course (Additional)*	Entomology	4	
VI	BSCZOO0618	Core / Elective Course (Additional)*	Wild Life and conservation Biology	4	
VI	BSCZOO0619	Core / Elective Course (Additional)*	Human Biology	4	
VI	BSCZOO0620	Core / Elective Course (Additional)*	Animal Behaviour	4	
VI	BSCZOO0621	Core / Elective Course (Additional)*	Fish Biology	4	

***Open Elective Courses offered by ZOOLOGY Department**

Semester	Course Code	Course Type	Course Name	Credit(s)/ week	Cumulated Credits Category-wise
VI	BSZOO0622	Open /Core Elective Course (Additional)*	Environment Management	4	
VI	BSCZOO0623	Core / Elective Course (Additional)*	Biodiversity	4	

(B) Structure Outline of Minor Elective in ZOOLOGY for other than Major Zoology Students (Minimum Credits to be Earned=20). Other than Zoology Major learner can do Double major by earning 34 more credits over and above 20 credits of Minor Elective.

Semester	Course Code	Course Name	Course Name	Credit(s)/week	Cumulated Credits Category-wise
I (Odd)		Compulsory Course I		3	Compulsory – 6 Core – 8 Minor Elective 1(a) – 4(4) Minor Elective 1(b)=4 Total Minor Electives – 8 (8) GI & H – 1 Total – 23
		Compulsory Course II (Skill Based)		3	
		Major Core Course I		3	
		Major Core Course II		3	
	BSCZOO0101	Minor Elective Course I (a)	Invertebrates I	3	
		Minor Elective Course I (b)		1	
		Major Core Lab Course I		1	
		Major Core Lab Course II		1	
	BSCZOO0101(P)	Minor Elective Lab Course I (a)	Invertebrates I	1	
		Minor Elective Lab Course I (b)		1	
	GI and H Course I		1		
II (Even)		Compulsory Course III		3	Compulsory – 6 (12) Core – 8 (16) Minor Elective II(a) – 4 (8) Minor Elective II(b) – 4 (8) Total Minor Electives – 8 (16) GI & H – 1 (2) Total 23 (46)
		Compulsory Course IV(Skill Based)		3	
		Major Core Course III		3	
		Major Core Course IV Optics		3	
	BSCZOO0203	Minor Elective Course II (a)	Biology of Chordates I	3	
		Minor Elective Course II (b)		3	
		Major Core Lab Course III		1	
		Major Core Lab Course IV		1	
	BSCZOO0203(P)	Minor Elective Lab Course II (a)	Biology of Chordates I	1	
		Minor Elective Lab Course II ()		1	
	GI and H Course II		1		
III (Odd)		Compulsory Course V		3	Compulsory – 6 (18)

Semester	Course Code	Course Name	Course Name	Credit(s)/week	Cumulated Credits Category-wise
		Compulsory Course VI		3	(Complete) Core – 8 (24)
		Major Core Course V		3	Minor
		Major Core Course VI	-----	3	Elective III(a) – 4 (12)
	BSCZOO0102	Minor Elective Course III (a)	Invertebrates II	3	Minor Elective III(b) – 4 (12)
		Minor Elective Course III(b)	-----	3	Elective – 8 (24)
		Major Core Lab Course V	-----	1	GI & H – 1 (3)
		Major Core Lab Course VI	-----	1	(Complete)
	BSCZOO0102 (P)	Minor Elective Lab Course III(a)	Invertebrates II	1	Total 23 (69)
		Minor Elective Lab Course III(b)	-----	1	
	GI and H Course III	-----	1		
IV (Even)		Major Core Course VII	-----	4	Core – 12 (36) Minor Elective IV(a) – 4 (16) Minor Elective IV(b) – 4 (16) Total Minor Electives – 8 (32) Core / Elective (additional) - 4 Total 24 (93)
		Major Core Course VIII Nuclear Physics	-----	4	
		Major Core Course IX Particle Physics	-----	4	
	BSCZOO0204	Minor Elective Course IV (a)	Biology of Chordates II	4	
		Minor Elective Course IV (b)	-----	4	
		Major Core Lab Course VII	-----	1	
		Major Core Lab Course VIII	-----	1	
	BSCZOO0204(P)	Minor Elective Lab Course IV (a)	Biology of Chordates II	1	
		Minor Elective Lab Course IV(b)	-----	1	
	Core / Elective Course (Additional)*	-----	4		
V (Odd)		Major Core Course X	-----	3	Core – 12 (48) Minor Elective V(a) – 4 (20) Minor Elective V(b) – 4 (20) Total Minor Electives – 8
		Major Core Course XI	-----	3	
		Major Core Course XII	-----	3	
	BSCZOO0305	Minor Elective Course V(a)	Developmental Biology	3	
		Minor Elective Course V(b)	-----	3	

Semester	Course Code	Course Name	Course Name	Credit(s)/week	Cumulated Credits Category-wise
		Major Core Lab Course X	-----	1	(40) (Complete) Core / Elective (additional) - 4 Total 24 (117)
		Major Core Lab Course XI	-----	1	
		Major Core Lab Course XII *	-----	1	
	BSCZOO0305(P)	Minor Elective Course V	Developmental Biology	1	
		Minor Elective Lab Course V (b)	-----	1	
		Core / Elective Course (Additional)*	-----	4	
VI (Even)		Major Core Course XIII	-----	4	Core – 8 (56) Core / Elective (additional) – 20* Total 28 (145)
		Major Core Course XIV	-----	4	
		Core / Elective Course (Additional)*	-----	4	
		Core / Elective Course (Additional)*	-----	4	
		Core / Elective Course (Additional)*	-----	4	
		Core / Elective Course (Additional)*	-----	4	
		Core / Elective Course (Additional)*	-----	4	