

# SACRED HEART COLLEGE, CHALAKUDY

Railway Station Road, Thrissur Dt., Kerala - 680 307, India

(Affiliated to University of Calicut & Re-accredited with A+ Grade by NAAC, CGPA 3.55)

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29/09/2022

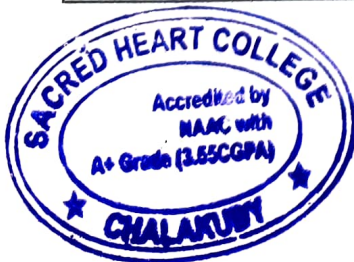
Date :

## Sub- Clarification regarding the Add-on/Certificate courses of the year 2016-17 Metric - (1.2.2)

I certify that the four Add-on/Certificate courses of the academic year 2016-17 listed below are not part of the curricula offered by the University. The Course Codes and syllabi of these Add-on/Certificate courses are also not the same with the Course codes, titles and syllabi of Courses as part of the curriculum. We have attached the list of the Course Codes and syllabi of the normal curricula for clarification. The syllabi, attendance, certificates of the Add-on/Certificate courses are also provided in the other link so that NAAC can verify that the courses are not part of the normal curricula.

In the DVV, you have accepted only one Add-on/Certificate course indicating whether others are part of normal curricula. Thank you for giving us an opportunity to clarify this. I hope you will accept all the four add-on courses of the year 2016-17 and the corresponding number of students who pursued this course into consideration.

Name of Add on /Certificate programs offered	Course Code (if any)	Year of offering	No. of times offered during the same year	Duration of course	Number of students enrolled in the year	Number of Students completing the course in the year
Diploma in Sales Tax Practice Add on course	DSTP	2016-17	1	75 hrs	41	37
Quail Farming - Add On Course		2016-17	1	100 hrs	33	33
Add on course on Communication Skills	ADENG01	2016-17	1	140 hrs	40	31
Soaps and Detergents Add On course	SHCHADD 1	2016-17	1	4 Months	37	37



  
PRINCIPAL  
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CHALAKUDY



**UNIVERSITY OF CALICUT**

**Abstract**

BSc in Zoology-CUCBCSS UG 2014-Scheme and Syllabus- w.e.f 2014 admission -Approved-  
Syllabus of Complementary Course incorporated in the syllabus -approved - corrigendum issued

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**G & A - IV - J**

U.O.No. 615/2015/Admn

Dated, Calicut University.P.O, 20.01.2015

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- Read:-*1. U.O. No. 3797/2013/CU, dated 07.09.2013 (CBCSS UG Modified Regulations)  
(File.ref.no. 13752/GA IV J SO/2013/CU).
2. U.O. No. 5180/2014/Admn, dated 29.05.2014 (CBCSS UG Revised Regulations)  
(File.ref.no. 13752/GA IV J SO/2013/CU).
3. Item no. 8 of the minutes of the meeting of the Board of Studies in Zoology UG  
held on 04.03.2014.
4. Item no. 2 of the minutes of the meeting of the Faculty of Science held on  
27.06.2014.
5. U.O.No: U.O.No. 6928/2014/Admn Dt 17.07.14
6. U.O.Note from Pareekshabhavan No: 15714/Ex-1-Asst-3/2014 3/8/14
7. item No: 1&2 of the Minutes of the meeting BOS in Zoology UG held on 18.11.14
8. item No:12 of the meeting of the Minutes of the Faculty of Science held on  
22.12.14

**ORDER**

The Modified Regulations of Choice Based Credit Semester System for UG Curriculum w.e.f 2014 was implemented under the University of Calicut vide paper read as (1). The Revised CUCBCSS UG Regulations has been implemented w.e.f 2014 admission, for all UG programme under CUCBCSS in the University, vide paper read as (2).

The Board of Studies in Zoology UG finalized the revised syllabus of BSc Zoology for implementation w.e.f the Academic Year 2014-2015. vide paper read as (3). The Faculty of Science has also approved the minutes of the Board vide paper read as (4).

The Hon'ble Vice Chancellor, considering the exigency, exercising the powers of the

concerned Boards of Studies mentioned in the minutes of the Faculty of Science, subject to ratification by the Academic Council, and orders have been issued vide paper read as (5).

The Pareekshabhavan as per paper read as (6) has reported the following omission in the approved syllabus of BSc Zoology UG 2014.

**The syllabus of complementaty course was not included in the syllabus.**

The BOS in Zoology as per paper read as (7) has corrected the syllabus of BSc Zoology and it has been got approved by the Faculty of Science as per paper read as (8). The chairman has forwarded the Corrected Syllabus and reported that the syllabus of complementary courses will be the same as that of 2013 syllabus.

Therefore the Scheme and Syllabus implemented vide paper read as (5) stands corrected to this effect.

Corrigendum is issued accordingly. (The corrected syllabus is attached herewith and is available in the website: [universityofcalicut.info](http://universityofcalicut.info))

Muhammed S  
Deputy Registrar

To

1. All Affiliated Colleges/SDE/Dept.s/Institutions under University of Calicut.
2. The Controller of Examinations, University of Calicut.
3. The Director SDE, University of Calicut.

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Section Officer

## **BSc Zoology main syllabus 2014 onwards**

- **Pattern of the model question paper, scheme of evaluation for internal examination and credit distribution have been included.**
- **The syllabus of Complementary course 2013 will continue without any change. The pattern of the model question paper, scheme of evaluation for internal examination and credit distribution for the complementary course have also been given.**

**UNIVERSITY OF CALICUT**

**B.Sc. ZOOLOGY PROGRAMME**

**SYLLABUS**

**CORE COURSES**

**COMPLEMENTARY COURSES**

**&**

**OPEN AND ELECTIVE COURSES**

*With effect from 2014-15 admission onwards*

	Core Course-XVIII: Project Work	2	50
	Field Study/Study tour	1	
	Viva-voce		
	<b>Total</b>	<b>30</b>	<b>850</b>

### Core Course Structure

**Total Credits: 56 (Internal: 20%; External: 80%)**

<i>Se mes ter</i>	<i>Code No</i>	<i>Course Title</i>	<i>Hrs/ Week</i>	<i>Total Hrs/ Sem</i>	<i>Credits</i>	<i>Marks</i>
<b>I</b>	ZO1B01T	Core Course I: Animal Diversity Nonchordata-I	2	36	2	100
	-	Core Course V : Practical related to ZO1B01T Practical-I*A	2	36	*	-
<b>II</b>	ZO2B02T	Core Course II: Animal Diversity Nonchordata-II	2	36	2	100
	-	Core Course V : Practical related to ZO2BOT-Practical-I*B	2	36	*	-
<b>III</b>	ZO3B03T	Core Course III –Animal diversity- Chordata -I	3	54	3	100
	-	Core Course V : Practical related to ZO3B03T-Practical-I*C	2	36	*	-

IV	ZO4B04T	Core Course IV: Animal diversity Chordata-II	3	54	3	100
	-	Core Course V: Practical related to ZO4B04T- Practical-I*D	2	36	*	-
	ZO4B05P	Practical-I*A, I*B, I*C & I*D	8	144	4	100
V	ZO5B06T	Core Course VI: Environmental Biology, Wild life Conservation & Toxicology	3	54	3	100
	ZO5B07T	Core Course VII: Ethology Evolution & Zoogeography	3	54	3	100
	-	Practical Theory Course related to ZO5B06T & ZO5B07T-Practical II*A	3	54	*	-
	ZO5B08T	Core Course VIII: Cell Biology & Genetics	3	54	3	100
	-	Practical related to Theory Core Course : ZO5B08T-Practical II*B	3	54	*	-
	ZO5B09T	Core Course IX: General Methodology in Science, Bio Statistics & Informatics	3	54	3	100
	-	Practical Related to Theory Core Course ZO5B09T-Practical II*C	2	36	*	-
	-	Project Work	2	36	**	-
	-	Field Study	1	18	***	-
VI	ZO6B10T	Core Course X: Bio Chemistry	2	36	2	100
	ZO6B11T	Core Course XI: Physiology & Endocrinology	3	54	3	100

-	Practical related to Core Course ZO6B10T & ZO6B11T-III*A	2	36	*	-
ZO0612T	Core Course XII: Molecular Biology & Bioinformatics	3	54	3	100
ZO0613T	Core Course XIII: Reproductive Biology, Developmental Biology & Teratology	3	54	3	100
-	Practical related to Theory Core Course ZO0613T-Practical-III*B	2	36	*	-
ZO0614T	Core Course XIV : Bio Technology, Micro biology & immunology	3	54	3	100
-	Practical Related to theory Core Course ZO0614T-Practical III*C	2	36	*	-
ZO0615T (E1) (E2) (E3)	Core Course XV: Elective	3	54	3	100
	1. Human Genetics				
	2. Aquaculture, Animal husbandry & Poultry				
	3. Applied Entomology(An y One)				
-	Practical Related to Theory Elective Course ZO0615T(E)-Practical III*D	2	36	*	-
ZO0616P	Practical II-II*A, II*B & II*C	8	144	4*	100
ZO0617P	Practical III-III*A, III*B, III*C & III*D	8	144	4*	100



	ZO06 18Pr	Project Work	-	-	2**	50
	ZO06 19F	Field Study		18	1***	-
	ZO06 20V	Viva voce	-	-	2****	-
<b>Total</b>					<b>56</b>	<b>1750</b>

\* Exam will be held at the end of 4<sup>th</sup> semester .

\*\* Exam will be held at the end of 6<sup>th</sup> semester.

- ZO 06 15T An institution can choose any one Elective course among the three courses.
- Includes Field Study also. Marks: 90 (ZO0616P) + 10 (Hand written Field Study Report).
- Includes Viva Voce also. Marks: 85(ZO06 17P) + 15(General Viva Voce).
- Practical Examinations are of 4 hrs Duration.



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Science - Syllabus of BSc Zoology Programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Implemented- Orders Issued

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**G & A - IV - J**

U.O.No. 9202/2019/Admn

Dated, Calicut University.P.O, 12.07.2019

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*Read:-*1) U.O No. 4368/2019/Admn dated 23.03.2019

2) Item No.1 in the minutes of the meeting of the Board of Studies in Zoology UG held on 25.06.2019

3) Item No. I.12 in the minutes of the meeting of Faculty of Science held on 27.06.2019

**ORDER**

The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum-2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration w.e.f. 2019 admission has been implemented vide paper read first above.

The meeting of Board of Studies in Zoology UG held on 25.06.2019 has approved the Scheme and Syllabus of BSc Zoology Programme in tune with the new CBCSS UG Regulations with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Science at its meeting held on 27.06.2019 has approved the minutes of the meeting of the Board of Studies Zoology UG held on 25.06.2019, vide paper read third above.

Under these circumstances, considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of BSc Zoology Programme in accordance with the new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

The Scheme and Syllabus of BSc Zoology Programme in accordance with CBCSS UG Regulations 2019 is therefore implemented in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended).

Biju George K

Assistant Registrar

To

The Principals of all Affiliated Colleges

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Section Officer

# **UNIVERSITY OF CALICUT**



## **B.Sc. ZOOLOGY PROGRAMME**

**[CBCSS UG 2019]**

### **SYLLABUS**

**Core Courses**

**Open Courses**

**Complementary Courses**

**&**

**Model Question Papers**

**EFFECTIVE FROM 2019 ADMISSION**

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**INTRODUCTION,  
GUIDELINES  
AND  
GENERAL INFORMATION**

**Table 5**  
**B.Sc. ZOOLOGY (CORE) PROGRAMME**  
**STRUCTURE OF CORE, OPEN AND ELECTIVE COURSES**  
*Course code, Title, Instructional hours, Credits, Marks and Examination duration in various semesters*

**Total Credits: 58**  
**(w.e.f. 2019 Admission)**

Semester	Core/Open/ Elective courses	Code	Course Title	Instructional hours/week	Instructional hrs in a semester	Credits	External Marks	Internal marks	Total marks	Duration of Exam (hrs)
I	Theory I	ZOL1B01T	Animal Diversity : Nonchordata Part-I	2	36	2	60	15	75	2
	Practical I*A	--	Practical related to ZOL1B01T	2	36	*	--	--	--	
II	Theory II	ZOL2B02T	Animal Diversity : Nonchordata Part-II	2	36	2	60	15	75	2
	Practical I*B	--	Practical related to ZOL2B02T	2	36	*	--	--	--	
III	Theory III	ZOL3B03T	Animal Diversity: Chordata Part-I	3	54	3	60	15	75	2
	Practical I*C	--	Practical related to ZOL3B03T	2	36	*	--	--	--	
IV	Theory IV	ZOL4B04T	Animal Diversity: Chordata Part-II	3	54	3	60	15	75	2
	Practical I*D	--	Practical related to ZOL4B04T	2	36	*	--	--	--	
	Practical-I {I*A +I*B+ I*C+ I*D}	ZOL4B05P	Zoology Core Practical I (Practical related to ZOL1B01T,02T,03T and 04T)	8	144	4	80	20	100	4
V	Theory V	ZOL5B06T	Cell Biology and Genetics	3	54	4	80	20	100	2.5
	Theory VI	ZOL5B07T	Biotechnology, Microbiology and Immunology	4	72	4	80	20	100	2.5
	Practical II*A	--	Practical related to ZOL5B06T & 07T	4	72	**	--	--	--	
	Theory VII	ZOL5B08T	Biochemistry and Molecular Biology	4	72	4	80	20	100	2.5
	Theory VIII	ZOL5B09T	Methodology in Science, Biostatistics and Bioinformatics	3	54	4	80	20	100	2.5
	Practical II*B	--	Practical related to ZOL5B08T, & 09T	4	72	**	--	--	--	
	#Open Course +++ (for other streams)	ZOL5D01T ZOL5D02T ZOL5D03T	• Reproductive Health and Sex Education • Nutrition, Health & Hygiene • Applied Zoology (Any one) #	3	54	3	60	15	75	2
VI	Theory IX	ZOL6B10T	Physiology and Endocrinology	3	54	3	60	15	75	2
	Theory X	ZOL6B11T	Reproductive and Developmental Biology	3	54	3	60	15	75	2
	Practical III*A	--	Practical related to ZOL6B10T & 11T	4	72	**	--	--	--	
	Theory XI	ZOL6B12T	Environmental and Conservation Biology	3	54	3	60	15	75	2
	Theory XII	ZOL6B13T	Ethology, Evolution and Zoogeography	3	54	3	60	15	75	2



Semester	Core/Open/ Elective courses	Code	Course Title	Instructional hours/week	Instructional hrs in a semester	Credits	External Marks	Internal marks	Total marks	Duration of Exam (hrs)
	Theory XIII Elective Course##	ZOL6B14(E)01T ZOL6B14(E)02T ZOL6B14(E)03T	<ul style="list-style-type: none"> <li>• Human Genetics</li> <li>• Aquaculture, Animal Husbandry &amp; Poultry science</li> <li>• Applied Entomology</li> </ul> (Any one) ##	3	54	2	60	15	75	2
	Practical III*B	--	Practical related to theory core course ZOL6B12T, 13T & ZOL6B14 (E)01T/ (E)02T/ (E)03T	4	72	**	--	--	--	
			Project work / Field study	2	32	***	--	--	--	
	Practical II (II*A +II*B)	ZOL6B15P	Zoology Core Practical II (Practical related to ZOL5B06T, 07T, 08T, 09T)	8	144	4**	80	20	100	4
	Practical III (III*A +III*B)	ZOL6B16P	Zoology Core Practical III (Practical related to ZOL6B10T, 11T, 12T, 13T & 14T (E)01/(E)02/(E)03)	8	144	4**	80	20	100	4
		ZOL6B17PF	Project work & Field study	--	--	2+1 ***	60	15	75	
			<b>Total</b>			<b>58</b>	<b>1220</b>	<b>305</b>	<b>1525</b>	

**Core courses 1450 + Open course 75 = 1525 Marks**

Scheme of evaluation: External 80 % +Internal 20 %

\* Practical examination for 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> semesters will be held at the end of IV semester.

\*\* Practical examination for 5<sup>th</sup> and 6<sup>th</sup> semesters will be held at the end of VI semester.

\*\*\* **Project work – 2 credits; Field study – 1 credit.** External evaluation of Project work and Field study report will be conducted at the end semester VI after Practical III (External: 80% Marks + Internal: 20 % marks; **Total: 75 Marks**). (It includes a Viva-voce based on report of Project work and field study).

Project: External 48 marks + Internal 12 marks = **60** marks

Field study report: External 12 marks +Internal 3 marks = **15** marks

# Open course of any one course (ZOL5D01T/ ZOL5D02T/ ZOL5D03T) opted by the dept. is for other streams.

Open course Theory: 80% marks for external and 20% marks for internal evaluation.

+++ See Appendix of Open course

## Elective course of any one course (ZOL6B14(E)01/ ZOL6B14(E)02/ ZOL6B14(E)03) opted by the dept. is for Core course.

**Table 6****+++Appendix****B.Sc. ZOOLOGY OPEN COURSE***[For students of other streams]***STRUCTURE OF OPEN COURSE****Course code, Title, Instructional hours, Credits, Marks and Duration of Examination****Total Credits: 3 (External 80% and Internal 20%)****(w.e.f. 2019Admission)**

Semester	Open Course	Code	Course content	Instructional hrs/ week	Instructional hrs in a semester	Credits	External Marks	Internal marks	Total marks	Duration of Exam (hrs)
V	Theory [Any one]	ZOL5D01T	<i>Open Course 01 :</i> Reproductive Health and Sex Education	3	54	3	60	15	75	2
		ZOL5D02T	<i>Open Course 02 :</i> Nutrition, Health and Hygiene							
		ZOL5D03T	<i>Open Course 03 :</i> Applied Zoology							
	<b>TOTAL</b>				<b>3</b>	<b>54</b>	<b>3</b>	<b>60</b>	<b>15</b>	<b>75</b>

*Open course of any one course (ZOL5D01T/ ZOL5D02T/ ZOL5D03T) opted by the dept. is for students of other streams.*

There shall be one open course in core subjects in the fifth semester. The open course shall be open to all the students in the institution except the students in the parent department. The students can opt that course from any other department in the institution. Each department can decide the open course from a pool of three courses offered by the University. For open courses there shall be a minimum of 10 and maximum of 75 students per batch. Total credits allotted for open course is 3 and the hours allotted is 3. If there is only one programme in a college, they can choose either language courses or physical education as open course.



**UNIVERSITY OF CALICUT**

**Abstract**

General and Academic - Faculty of Science - Syllabus of MSc Applied Zoology Programme under CCSS PG Regulations 2019 (University Teaching Departments) with effect from 2019 Admission onwards-Implemented- Orders-Issued.

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**G & A - IV - J**

U.O.No. 11743/2019/Admn

Dated, Calicut University.P.O, 30.08.2019

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*Read:-*1. U.O No.4487/2019/Admn dated 26.03.2019

2. Item No. 1 of the minutes of the meeting of the Board of Studies in Zoology PG held on 28.06.2019

3. Remark from the Dean, Faculty of Science dated 30.07.2019.

**ORDER**

The Regulations under Choice-based Credit Semester System for Post Graduate Programmes (CCSS-PG-2019) of all Teaching Departments / Schools of the University of Calicut w.e.f. 2019 admissions has been implemented in the University of Calicut vide paper read first above.

The meeting of Board of Studies in Zoology PG held on 28.06.2019 has approved the Syllabus of M.Sc Applied Zoology Programme in tune with the new CCSS PG Regulations with effect from 2019 Admission onwards, vide paper read second above.

The Dean, Faculty of Science has approved the minutes of the meeting of the Board of Studies in Zoology PG held on 28.06.2019 vide paper read third above.

Under these circumstances , considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of M.Sc Applied Zoology Programme in accordance with the new CCSS PG Regulations 2019, in the University with effect from 2019 Admission onwards,subject to ratification by the Academic Council.

The Scheme and Syllabus of M.Sc Applied Zoology Programme for Teaching Departments /Schools of the University of Calicut in accordance with CCSS PG Regulations 2019, is therefore implemented with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended).

Biju George K

Assistant Registrar

To

The HoD, Department of Zoology

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**DEPARTMENT OF ZOOLOGY**  
**UNIVERSITY OF CALICUT**  
CALICUT UNIVERSITY P.O.  
KERALA, 673 635



**RESTRUCTURED CURRICULUM AND SYLLABI FOR**  
**M. Sc. APPLIED ZOOLOGY**  
**(Choice based Credit Semester System – CCSS)**

*(w.e.f. 2019 admission)*

## **C O N T E N T S**

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**SEMESTER-WISE DETAILS****FIRST SEMESTER**

<b>Code No. &amp; Course</b>	<b>Teaching Hours</b>	<b>Credits</b>	<b>Ext. Marks</b>	<b>Int. Marks</b>	<b>Total Marks</b>
ZOO 1C 01- BIOCHEMISTRY	80 hrs	4	80	20	100
ZOO 1C 02 – BIOPHYSICS & BIOSTATISTICS	80 hrs	4	80	20	100
ZOO 1C 03 – BIOSPHERE ECOLOGY	80 hrs	4	80	20	100
ZOO 1C 04- SYSTEMATICS & ANIMAL BEHAVIOUR	80 hrs	4	80	20	100
ZOO 1C 05 – BIOCHEMISTRY, BIOPHYSICS & BIOSTATISTICS PRACTICAL	60 hrs	2	80	20	100
ZOO 1C 06 – SYSTEMATICS, BEHAVIOUR & BIOSPHERE ECOLOGY PRACTICAL	60 hrs	2	80	20	100
<b>Total for First Semester</b>		<b>20</b>	<b>480</b>	<b>120</b>	<b>600</b>

**SECOND SEMESTER**

<b>Code No. &amp; Course</b>	<b>Teaching Hours</b>	<b>Credits</b>	<b>Ext. Marks</b>	<b>Int. Marks</b>	<b>Total Marks</b>
ZOO 2C 07- CYTOGENETICS & EVOLUTION	80 hrs	4	80	20	100
ZOO 2C 08 – MOLECULAR BIOLOGY	80 hrs	4	80	20	100
ZOO 2C 09 – BIOTECHNOLOGY	80 hrs	4	80	20	100
ZOO 2C 10- ANIMAL PHYSIOLOGY & ENDOCRINOLOGY	80 hrs	4	80	20	100
ZOO 2C 11 - CYTOGENETICS & ANIMAL PHYSIOLOGY PRACTICAL	60 hrs	2	80	20	100
ZOO 2C 12 - MOLECULAR BIOLOGY & BIOTECHNOLOGY PRACTICAL	60 hrs	2	80	20	100
<b>Total for Second Semester</b>		<b>20</b>	<b>480</b>	<b>120</b>	<b>600</b>

### THIRD SEMESTER

Code No. & Course	Teaching Hours	Credits	Ext. Marks	Int. Marks	Total Marks
ZOO 3C 13- DEVELOPMENTAL BIOLOGY & ANIMAL ETHICS	80 hrs	4	80	20	100
ZOO 3C 14 – MICROBIOLOGY & IMMUNOLOGY	80 hrs	4	80	20	100
ZOO 3E 15 – GENERAL ENTOMOLOGY	80 hrs	4	80	20	100
ZOO 3E 16- INSECT PHYSIOLOGY & BIOCHEMISTRY	80 hrs	4	80	20	100
ZOO 3C 17 - DEVELOPMENTAL BIOLOGY, MICROBIOLOGY & IMMUNOLOGY PRACTICAL	60 hrs	2	80	20	100
ZOO 3E 18 - GENERAL ENTOMOLOGY & INSECT PHYSIOLOGY BIOCHEMISTRY PRACTICAL	60 hrs	2	80	20	100
<b>Total for Third Semester</b>		<b>20</b>	<b>480</b>	<b>120</b>	<b>600</b>

### FOURTH SEMESTER

Code No. & Course	Allotted Hours	Credits	Ext. Marks	Int. Marks	Total Marks
ZOO 4C 19- PROJECT	160 hrs	8	160	40	200
ZOO 4E 20 – AGRICULTURAL ENTOMOLOGY & ACAROLOGY*	80 hrs	4	80	20	100
ZOO 4E 21 – INSECT PESTS – CONTROL AND MANAGEMENT*	80 hrs	4	80	20	100
ZOO 4E 22 – ECOLOGY & ETHOLOGY OF INSECTS*	80 hrs	4	80	20	100
ZOO 4E 23 – MEDICAL, VETERINARY & FORENSIC ENTOMOLOGY*	80 hrs	4	80	20	100
ZOO 4E 24 – PRACTICAL ON 4E 20*	30 hrs	2	80	20	100
ZOO 4E 25 – PRACTICAL ON 4E 21*	30 hrs	2	80	20	100
ZOO 4E 26 – PRACTICAL ON 4E 22*	30 hrs	2	80	20	100
ZOO 4E 27 – PRACTICAL ON 4E 23*	30 hrs	2	80	20	100
<b>Total for Fourth Semester</b>		<b>20</b>	<b>480</b>	<b>120</b>	<b>600</b>

C - Core course; E - Elective course

\* Elective Courses (Any Two Theory course and its Practical is to be opted by the student)