

Department of Animal Sciences

School of Basic and Applied Sciences

Central University of Punjab, Bathinda



Program: M.Sc. Life Sciences (specialization in Animal Sciences)

Academic Session: 2018 – 19

Program: M.Sc. in Life Sciences (Specialization: Animal Sciences)
(Academic Session: 2018 - 19)

Semester – I

Course Code	Course Title	L (hr)	T (hr)	P (hr)	Cr
	Foundation Course*				
LAS.507	Animal Classification and Diversity	3	-	-	3
	Core Courses*				
LAS.508	Biochemistry	2	1	-	3
LAS.510	Ecology and Evolution	2	1	-	3
LAS.511	Cell Biology	2	1	-	3
LAS.512	Essentials of Genetics	2	1	-	3
LAS.520	Lab Course (Practical) – I	-	-	12	6
	Elective Courses (Opt any one)				
LAS.513	Techniques in Life Sciences	2	-	-	2
LAS.514	Animal Cell Culture and Applications	2	-	-	
	Inter-Disciplinary (ID) Course				
LAS.515	Fundamentals of Cell Biology (IDC)	2	-	-	2
	Total Credits / Marks				25

L: Lectures; T: Tutorials; P: Practical; Cr: Credits; * Compulsory Courses

Examination Pattern

- A: Continuous Assessment: [25 Marks]
i. Surprise Test (minimum three) - Based on Objective Type Tests (10 Marks)
ii. Term paper (10 Marks)
iii. Assignment(s) (5 Marks)
- B: Pre-Scheduled Mid Semester Test-1: Based on Subjective Type Test [25 Marks]
C: Pre-Scheduled Mid Semester Test-2: Based on Subjective Type Test [25Marks]
D: End-Term Exam (Final): Based on Objective Type Tests [25 Marks]
E: Practical: (Annexure - A)

Semester – II

Course Code	Course Title	L (hr)	T (hr)	P (hr)	Cr
	Core Courses*				
LAS.521	Animal Physiology	3	1	-	4
LAS.522	Immunology	2	1	-	3
LAS.523	Molecular Biology	2	1	-	3
LAS.524	Nutrition and Metabolism	2	1	-	3
LAS.540	Lab Course (Practical) – II	-	-	12	6
	Elective Courses (Opt any one)				
LAS.525	Nanobiology	2	-	-	2
LAS.527	Animal Behavior	2	-	-	
	Inter-Disciplinary (ID) Course				
LAS.528	Basics in Neuroscience (IDC)	2	-	-	2
	Seminar				
LAS.597	Seminar – II	1	-	-	1
	Total Credits				24

L: Lectures; T: Tutorials; P: Practical; Cr: Credits; * Compulsory Courses

Examination Pattern

- A: Continuous Assessment: [25 Marks]
- i. Surprise Test (minimum three) - Based on Objective Type Tests (10 Marks)
 - ii. Term paper (10 Marks)
 - iii. Assignment(s) (5 Marks)
- B: Pre-Scheduled Mid Semester Test-1: Based on Subjective Type Test [25 Marks]
- C: Pre-Scheduled Mid Semester Test-2: Based on Subjective Type Test [25Marks]
- D: End-Term Exam (Final): Based on Objective Type Tests [25 Marks]
- E: Practicals: (Annexure - A)
- F: Seminar (Annexure - B)

Semester – III

Course Code	Course Title	L (hr)	T (hr)	P (hr)	Cr
	Core Courses*				
LAS.502	Research Methodology and Biostatistics	2	1	-	3
LAS.551	Developmental Biology	2	1	-	3
LAS.552	Cancer Biology	2	1	-	3
LAS.570	Lab Course (Practical) – III	-	-	12	6
	Elective Courses (Opt any one)				
LAS.553	Vascular Biology	2	-	-	2
LAS.554	Neurobiology and Degeneration	2	-	-	
	Research*				
LAS.599	Research Project (Part – I)	-	-	8	4
	Total Credits				21

L: Lectures; T: Tutorials; P: Practical; Cr: Credits; * Compulsory Courses

Examination Pattern

- A: Continuous Assessment: [25 Marks]
- i. Surprise Test (minimum three) - Based on Objective Type Tests (10 Marks)
 - ii. Term paper (10 Marks)
 - iii. Assignment(s) (5 Marks)
- B: Pre-Scheduled Mid Semester Test-1: Based on Subjective Type Test [25 Marks]
- C: Pre-Scheduled Mid Semester Test-2: Based on Subjective Type Test [25Marks]
- D: End-Term Exam (Final): Based on Objective Type Tests [25 Marks]
- E: Practical: (Annexure - A)

Semester – IV

Course Code	Course Title	L (hr)	T (hr)	P (hr)	Cr
	Elective Course (Opt any one)				
LAS.571	Genetic Engineering	2	-	-	2
LAS.572	Endocrinology	2	-	-	
	Research*				
LAS.599	Research Project (Part – II)	-	-	36	18
	Total Credits				20

L: Lectures; T: Tutorial; P: Practical; Cr: Credits; * Compulsory courses

Examination Pattern

- A: Continuous Assessment: [25 Marks]
- i. Surprise Test (minimum three) - Based on Objective Type Tests (10 Marks)
 - ii. Term paper (10 Marks)
 - iii. Assignment(s) (5 Marks)
- B: Pre-Scheduled Mid Semester Test-1: Based on Subjective Type Test [25 Marks]
- C: Pre-Scheduled Mid Semester Test-2: Based on Subjective Type Test [25Marks]
- D: End-Term Exam (Final): Based on Objective Type Tests [25 Marks]
- E: **Research Project**: Satisfactory (S) / Unsatisfactory (US) as per the current practice by CUPB

Total No. of Credits and Marks:

Semester	No. of Credits
Semester I	25
Semester II	24
Semester III	21
Semester IV	20
Total no	90

Annexure – A

Examination Pattern

Practical: Lab course – I, II & III [100 Marks each]

i. Day to day performance – 60 Marks

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|----------------------------------|-----------------|
| <i>a. Attendance –</i> | <i>10 Marks</i> |
| <i>b. Continuous assesment -</i> | <i>30 Marks</i> |
| <i>c. Lab Record -</i> | <i>10 Marks</i> |
| <i>d. Over all performance -</i> | <i>10 Marks</i> |

ii. End-semester exam – 40 Marks

- | | |
|----------------------------|-----------------|
| <i>a. Major Question -</i> | <i>20 Marks</i> |
| <i>b. Minor Question -</i> | <i>10 Marks</i> |
| <i>c. Viva-voce -</i> | <i>10 Marks</i> |

Annexure – B

Examination Pattern

Credit Seminar: I

Seminar:	[50 Marks]
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|---|-----------------|
| <i>a. Report submission -</i> | <i>10 Marks</i> |
| <i>b. Contents -</i> | <i>10 Marks</i> |
| <i>c. Presentation skills -</i> | <i>10 Marks</i> |
| <i>d. Innovation -</i> | <i>10 Marks</i> |
| <i>e. Question & Answers -</i>
(Interaction session) | <i>10 Marks</i> |

Modified on: 18 - 1 - 2018