



**Karmaveer Bhaurao Patil University, Satara**  
**Faculty of Science and Technology**  
**M. Sc. (Zoology)**

**Programme and Credit Structure as per NEP2020**

Title: The degree shall be titled as ‘**Master of Science (Zoology)**’ under the Faculty of Science and Technology.

M.Sc. Sem. I & II: To be implemented from Academic Year 2024-25

M.Sc. Sem. III & IV: To be implemented from Academic Year 2025-26

**Program Outcomes for M. Sc. (Zoology)**

<b>PO No.</b>	<b>Program Outcomes</b> <b>After completing the Master of Science in Zoology students will be able to...</b>
PO-1	Understand the fundamentals and advancements of subject
PO-2	Study, plan and conduct experiments in the labs to validate the ideas principles and theories acquired in the classrooms
PO-3	Enhance scientific knowledge of the subject
PO-4	Define their area of focus in academia, research and development.
PO-5	Pursue careers in various fields such as science, engineering, education, banking, business, public services, etc. or become an entrepreneur with precision, analytical thinking, innovative ideas clarity thought, expression and systematic approach.

<b>PSO No.</b>	<b>Program Specific Outcomes</b> <b>After completing the Master of Science in Zoology students will be able to...</b>
PSO-1	Understand the basics and advances of Zoology
PSO-2	Study, plan and perform experiments in the labs to prove the ideas, values and theories learned in the classrooms

PSO-3	Improve scientific knowledge in Zoology
PSO-4	Classify their area of attention in academic, research and development.
PSO-5	Perform job in various fields like science, engineering, education, banking, business and public service, etc. or be an entrepreneur with precision, analytical mind, innovative thinking and clarity of thought, expression, and systematic approach.

### Semester, Credit Framework NSQF Level and Exit Points

Sr. No	Semester	Year	Year	Credits	Level	Exit Points & Award
1	Sem. I & II	2024-25	1 Year	44	6	<b>PG Diploma (Zoology)</b>
2	Sem. III & IV	2025-26	2 Year	44	6.5	<b>PG Degree (Zoology)</b>
			<b>Total</b>	<b>88</b>		<b>Master of Science (Zoology)</b>

### Credit Distribution

Sr. No	Components	1 Year Master Degree Programme			2 Year Master Degree Programme		
		Courses	Credits	%	Courses	Credits	%
	Mandatory Courses	06	24	54.55	12	48	54.55
	Elective Courses	02	04	9.09	04	08	9.09
	Mandatory Practical	02	04	9.09	04	08	9.09
	Elective Practical	02	04	9.09	03	06	6.82
	Research Methodology	01	04	9.09	01	04	4.55
	Research Project	01	04	9.09	02	10	11.36
	OJT	--	--	--	01	04	4.55
	<b>Total (Mandatory)-(A)</b>	<b>09</b>	<b>32</b>	<b>72.73</b>	<b>19</b>	<b>70</b>	<b>79.55</b>
	Elective	04	08	18.18	07	14	15.91
	RM	01	04	9.09	01	04	4.55
	<b>Total - (B)</b>	<b>05</b>	<b>12</b>	<b>27.27</b>	<b>01</b>	<b>04</b>	<b>4.55</b>
	<b>Grand Total (A+B)</b>	<b>14</b>	<b>44</b>	<b>100</b>	<b>27</b>	<b>88</b>	<b>100</b>

**Duration:**

- The program shall be a full-time program.
- The duration of program shall be One Year / Two years.
- Students will have to exit option with: - First Year (44 Credits) - PG Diploma  
Second Year (88 Credits) - Master Degree

**Number of Students:** A batch shall consist of not more than 20 students. An additional 20% of seats will be allotted as per Karmaveer Bhaurao Patil University, Satara Norms.

**Eligibility of the Students:**

- Bachelor of Science with specialization in Zoology
- Bachelor of Science with specialization in Zoology and Fisheries.
- Any other eligibility prescribed by UGC, Government of Maharashtra, Karmaveer BhauraoPatil University, Satara.

**Medium of Instruction:** The medium of instruction shall be in English.

**Eligibility of the Core Faculty:**

- **Assistant Professor:** Master of Science with specialization in Zoology and NET/ SET/ Ph.D.
- Associate Professor: Master of Science in Zoology with NET/ SET/Ph.D.
- Professor: Master of Science in Zoology with NET/ SET/Ph.D.

**Eligibility for Professor of Practice or Professional Trainer:**

Any other eligibility as per the Guidelines and Regulations Passed by the Board of Concerned Studies, Academic Council of the College / University and Rules and Regulations of Karmaveer Bhaurao Patil University, Satara, Government of Maharashtra, and UGC norms.

**Eligibility for Adjunct Professor of Practice or Professional Trainer:**

As per eligibility prescribed by UGC.

**Scheme of Examination & Standard of Passing :(ESE and CCE)**

End Semester Exam (ESE): 60 Marks (Min 24 Marks for Passing)

Continuous Comprehensive Evaluation (CCE): 40 Marks (Min 16 Marks for Passing)

Total Marks: 100 Marks for **DSC mandatory courses**.

End Semester Exam (ESE): 30 Marks (Min 12 Marks for Passing)

Continuous Comprehensive Evaluation (CCE): 20 Marks (Min 08 Marks for Passing)

Total Marks: 50 Marks for **DSE elective courses**.

Minimum 40% Marks Required for Passing and there is a separate head of passing as per the decision of the concerned Board of Studies or Competent

Authority.

### **Evaluation of OJT and RP:**

i. OJT: Total 100 marks for 4 credits

(Rubrics: Certificate = max 60 marks, Report = 20 marks, Viva = 20 marks)

ii. RP: Total 100 marks for 4 credits

(Rubrics: Dissertation = 60 marks, Presentation & Viva = 40 marks).

<b>M.Sc. (Zoology) Part -I Semester -I</b>				
<b>Sr.</b>	<b>Components</b>	<b>Course code</b>	<b>Course (Subject)</b>	<b>Credits</b>
1	Mandatory	MZT 411	Biosystematics and Biodiversity	4
2	Mandatory	MZT 412	Ecology and Environmental Pollution	4
3	Mandatory	MZT 413	Cell and Molecular Biology	4
4	Electives	MZT 414	Applied Entomology – E I or Histology and Histochemistry- E II	2
5	RM	MZT 415	Research Methodology	4
6	Mandatory Lab	MZP 416	Zoology Practical Course – I	2
7	Electives Lab	MZP 417	Zoology Practical Course – II	2
			<b>Total</b>	<b>22</b>
<b>Semester -II</b>				
<b>Sr.</b>	<b>Components</b>	<b>Course code</b>	<b>Course (Subject)</b>	<b>Credits</b>
1	Mandatory	MZT 421	Physiological Chemistry	4
2	Mandatory	MZT 422	Tools and Techniques in Zoology	4
3	Mandatory	MZT 423	Elements of Physiology	4
4	Electives	MZT 424	Biology of Parasites– E I or General Endocrinology– E II	2

5	RP	MZP 425	Research Project	4
6	Mandatory Lab	MZP 426	Zoology Practical Course – III	2
7	Electives Lab	MZP 427	Zoology Practical Course – IV	2
			<b>Total</b>	<b>22</b>

**EXIT OPTION:** PG Diploma with **44 Credits** after Three Year UG Degree.

<b>M.Sc. (Zoology) Part -II</b>				
<b>Semester –III</b>				
<b>Sr.</b>	<b>Components</b>	<b>Course code</b>	<b>Course (Subject)</b>	<b>Credits</b>
1	Mandatory	MZT 531	Genetics	4
2	Mandatory	MZT 532	Enzymology	4
3	Mandatory	MZT 533	Computational Molecular Biology	4
4	Electives	MZT 534	Molecular Biology of the gene- E I or Cell Signaling and Communication – E II	2
5	Mandatory Lab	MZP 535	Zoology Practical Course – V	2
6	RP	MZP 536	Research Project	6
			MZT 415	<b>22</b>
<b>Semester –IV</b>				
<b>Sr.</b>	<b>Components</b>	<b>Course code</b>	<b>Course (Subject)</b>	<b>Credits</b>
1	Mandatory	MZT 541	Animal cells in biotechnology	4
2	Mandatory	MZT 542	Toxicology	4
3	Mandatory	MZT 543	Cell in Differentiation, Development and Specialization	4
4	Electives	MZT 544	Cell Pathology- E I or Immunology – E II	2
5	Mandatory Lab	MZP 545	Zoology Practical Course –VI	2
6	Electives Lab	MZP 546	Zoology Practical Course – VII	2
7	OJT	MZP 547	On Job Training	4
			<b>Total</b>	<b>22</b>

**\*\*\*\* PG Degree with 88 credits after Three Year UG Degree.**

Chairman  
BoS in Zoology

Secretary  
Academic Council

Chairman  
Academic Council