

Master of Science (M.Sc.)

Programme Project Report (PPR)
M. Sc in Zoology (ODL Mode)
Department of Zoology



UTTARAKHAND OPEN UNIVERSITY
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Prof. Hemant Kataria
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Programme Project Report (PPR)

MSCZO (M.Sc. Zoology)

Department of Zoology

Uttarakhand Open University

The content of the Programme Project Report are as:-

Name of the Programme: M. Sc. (Zoology)

a. Programmes Mission & Objectives:

The mission of the programme is to conduct high quality research on the subject and disseminate it to scholars and other stakeholders.

The objectives of research programme are to prepare a competent researcher who can conduct independent research and to equip the researchers with the latest developments and techniques in the field of research in their respective fields.

- b. Relevance of the program with HEI.s Mission and Goals:** One of the missions of Higher Education Institution is to contribute towards research and academic development, therefore, the department has proposed to initiate PG. Programme in the subject. Zoology programme of Uttarakhand Open University are designed to accomplish local and regional aspirations, fulfill national obligations and honor international commitments through high quality research in various disciplines. Further, it will also create more opportunities for the learners who wish to pursue research on the subject areas. Additionally, it will also help the faculty member working in Open and Distance Learning Institutions to contribute towards academic excellence through guidance in research programme.

- c. Nature of prospective target group of learners:** The students who wish to join PG. programme are required to have a Post graduate degree in Zoology (M.Sc Zoology/) from recognized institution/university. Those learners who wish to contribute through research in the field of education will be the target group of learners. Further, working professionals in Govt. Organisations and Community Based Organisations or other Institutions may also comprise of the target group of learners

The graduate degree will provide students with the advanced knowledge and skills required to further their careers and conduct meaningful scientific research.

Prof. N. K. Kataria
Prof. A. K. Bhatnagar
Prof. S. P. Bhatnagar

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d. Appropriateness of programme to be conducted in Open and Distance Learning mode to acquire specific skills and competence.

The M.Sc Zoology Programme will be conducted as per University Grants Commission (Open and Distance Learning Programmes and Online Programmes) Regulations, 2017, 2018 and 2020 except as respect of things done or omitted to be done before such supersession, by the University Grants Commission with the previous approval of the Central Government. These regulations lay down the minimum standards of instruction for the grant of degrees at the undergraduate and post graduate levels and grant of post graduate diploma, through Open and Distance Learning mode and Online mode and shall be in addition to and not in derogation of any other regulations, Notifications, Guidelines or Instructions issued by the Commission .There are very few institutions/ Universities/ Colleges in India that impart under graduate level education on Zoology in Open and Distance Learning. Therefore, access to knowledge on the subject isnot accessible easily to those aspirants who reside in far remote areas and those who belong to weaker and marginal sections of the society or are in job. Therefore, initiating such programme in Open and Distance Learning (ODL) mode will help aspirants particularly residing in far-flung areas and those who belong to weaker sections, to acquire skill and knowledge on the subject area. In order to communicate effectively with the Learners University has adopted the following tools:

- self-instructional printed material (SLM)
- audio / video cassettes and CDs
- audio-video programmes transmitted through FM Radio and Edu Sat
- face-to- face counseling at study centers by academic counselors
- reference library at study centre
- web based academic support
- assignments
- practical

e). Instructional Design, Duration of the programme

Candidates who have passed the B.Sc. examination or any other equivalent examination with Zoology as one of the major subjects will be considered eligible for admission to the M.Sc. course in Zoology . The M.Sc. course in Zoology shall be imparted to the students for two academic sessions consisting of four semesters as given below. Candidates will be examined and evaluated on at the end of each semester in the different courses of theory, practical, fieldwork and project work as per the marks given against each course. The M.Sc. Zoology will consist of (a) Core Courses (b) Elective Courses and (c) Field Training.

Prof. Neeraj Kapoor
Prof. A.K. Zoberaj
Prof. S.P.S. Bisht

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The Core courses will be compulsory for all the students admitted to M.Sc. Zoology . There will be sixteen core courses and one major elective covering major branches of Zoology and one session of two weeks Zoological field training. The attendance in the Zoological field training and labs will be compulsory for all the students. The field training and viva-voce examination will be conducted by at least two internal examiners (faculty members) during second and fourth semesters. . After the field training, the students will be required to submit a detailed field report to the concerned teachers for evaluation.

University must develop its own curriculum for this programme and developing its own SLM

Programme Curriculum:

Name of the Programme : Master of Science Zoology (M.Sc. Zoology)

Programme Code: MSCZO-23

Programme Mode: Semester

Eligibility: Graduation in concern subject

Duration Min: 2 Years; **Max:** 5 Years

Self Learning Material (SLM): English

Programme Fee: Fee per semester: - 9500/

Total fee M.Sc. Programme = 38300 /

Total Credit: 72

PROGRAMME STRUCTURE: MASTER OF ZOOLOGY

Name of Programme	MASTER OF SCIENCE IN ZOOLOGY
Programme Code	MSCZO
Programme Mode	Semester Wise

Eligibility: Bachelor Science with biology or Zoology as a subject combination in graduate level from any recognized University

Duration Min: 2 Years; **Max:** 4 Years

Self Learning Material (SLM): English (Hindi SLM will be developed by translating the English SLM by maintain technical terminology of English only)

Total Credit: 72

Objectives: To provide an opportunity for science education to the door steps of aspirants and for skill development to enhance employability or entrepreneurship.

Prof. Meera Kaur
Prof. AK Dobariyal
Prof. SPS Bishit

R. Singh
SK
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M.Sc. Zoology
(Two years Degree Programme)
First Semester

Course code	Course Name	Marks			Credit	Minimum counseling hours
		Theory	Assignment	Total		
MSCZO-501	Invertebrates	70	30	100	3	9
MSCZO -502	Taxonomy & Evolution	70	30	100	3	9
MSCZO -503	Animal Physiology & Endocrinology	70	30	100	3	9
MSCZO -504	Bio-Chemistry	70	30	100	3	9
MSCZO -505(L)	Practical Zoology I (Practical Related to the syllabus of 1 st sem.)			200	6	18
				Total Credit	18	

Second Semester

Course code	Course Name	Marks			Credit	Minimum counseling hours
		Theory	Assignment	Total		
MSCZO -506	Concepts of Cell Biology and Genetics	70	30	100	3	9
MSCZO-507	Molecular Biology & Biotechnology	70	30	100	3	9
MSCZO -508	Environmental Biology	70	30	100	3	9
MSCZO 509	Animal Behavior	70	30	100	3	9
MSCZO -510(L)	Practical Zoology II (Practical Related to the syllabus of II nd sem.)			200	6	18
				Total Credit	18	

Third Semester

MSCZO -601	Vertebrates	70	30	100	3	9
MSCZO -602	Developmental Biology	70	30	100	3	9
MSCZO -603	Bioinformatics, Biostatistics & Computer Application	70	30	100	3	9
MSCZO -604	Microbiology & Immunology	70	30	100	3	9
MSCZO -605(L)	Practical Zoology III (Practicals Related to the syllabus of III rd sem.)			200	6	18
				Total Credit	18	

Prof. N. S. Kulkarni
Prof. P. H. Dobriyal
Prof. S. P. S. Bisht

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FOURTH SEMESTER

SPECIAL PAPER: SPECIAL PAPER EITHER FISH AND FISHERIES OR ENTOMOLOGY

FISH AND FISHERIES

Course code	Course Name	Marks			Credit	Minimum counseling hours
		Theory	Assignment	Total		
MSCZO -606	Fish and Fisheries (Structure and Functions)	70	30	100	3	9
MSCZO -607	Fish and Fisheries (Applied Ichthyology) (Fisheries Culture, Nutrition and Pathology)	70	30	100	3	9
MSCZO -608	Laboratory Course: Fishery (Practical Related to the syllabus of IV th sem.)	-	-	100	3	9
MSCZO -609	Dissertation (Seminar & Viva-Voice)	-	-	Grade	9	27
Total Credit					18	

OR

ENTOMOLOGY

Course code	Course Name	Marks			Credit	Minimum counseling hours
		Theory	Assignment	Total		
MSCZO -610	Entomology (Systematic and Applied Entomology)	70	30	100	3	9
MSCZO 611	Entomology (Morphology, Physiology & Development Biology)	70	30	100	3	9
MSCZO -612	Laboratory Course: Entomology (Practical Related to the syllabus of IV th sem.)	-	-	100	3	9
MSCZO 613	Dissertation (Seminar & Viva-Voice)	-	-	Grade	9	27
Total Credit					18	

Cost estimates for development of the programme

Activities	Units / Pages	Amount (Rs.)
A. Masters Level Programme		
1. Unit Writing (@ Rs. 6000/ unit)	215 Units	1290000.00
2. Typing (@ Rs.20/ per page)	5375 Pages (Per unit approx. 25 pages)	107500.00
3. Editing (@ Rs.3000/ unit)	215 units	645000.00
3. Postal Expenses (Approx.)	-	5000.00
Total		2047500.00

Note: 1-*Students have to opt "One Special Paper either fish and fisheries or Entomology" from the two given Specialization Courses (MSCZO606-609 or MSCZO-610-613) in the fourth semester. Student will have to do a Dissertation. Marks shall not be awarded to the student on the Dissertation, instead of marks Grade A, B, C or D shall be given after assessment of the Dissertation.

Prof. N. S. Bhat
Prof. A. K. Bhat
Prof. S. P. Bhat

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