પરિપત્ર:

ભક્તકવિ નરસિંહ મહેતા યુનિવર્સિટીની લાઈફ સાયન્સ વિદ્યાશાખાનાં અભ્યાસક્રમ ચલાવતા સેન્ટર ઓફ એક્ષેલેન્સ ફોર વાઇલ્ડ-લાઈફ એન્ડ કન્ઝર્વેશન સ્ટડીઝનાં ડાયરેકટર તેમજ લાઈફ સાયન્સ ડીપાર્ટમેન્ટનાં હેડને જણાવવાનું કે લાઈફ સાયન્સ વિદ્યાશાખા અંતર્ગતનો વાઈલ્ડ-લાઈફ સાયન્સીસ વિષયનો વાઈલ્ડ લાઈફ સાયન્સીસ સર્ટીફીકેટ કોર્ષનો અભ્યાસક્રમ આ સાથે સામેલ છે.

માનનીય કુલપતિશ્રીની મંજુરી અનુસાર સદર અભ્યાસક્રમ શૈક્ષણિક વર્ષ જુન,૨૦૨૫ થી અમલવારી કરવાની રહે છે. લાઈફ સાયન્સ વિદ્યાશાખા માં સેન્ટર ઓફ એક્ષેલેન્સ ફોર વાઇલ્ડ-લાઈફ એન્ડ કન્ઝર્વેશન સ્ટડીઝનાં ડાયરેકટરશ્રીને અમલવારી કરવા જણાવવામાં આવે છે .

Bhakta Kavi Narsinh Mehta University Junagadh.

9/7/2025

ખાસ ફરજ પરના અધિકારી
(એકેડેમિક)

ક્રમાંક/બીકેએનએમયુ/ એકેડેમિક/૩૪૨/૨૦૨૫
ભક્તકવિ નરસિંહ મહેતા યુનિવર્સિટી,
સરકારી પોલીટેકનિક કેમ્પસ,
ભક્તકવિ નરસિંહ મહેતા યુનિવર્સિટી રોડ,
ખડીયા, જૂનાગઢ-૩૬૨૨૬૩
તા.૦૯/૦૭/૨૦૨૫

પ્રતિ,

- ભક્તકવિ નરસિંહ મહેતા યુનિવર્સિટીનાં સેન્ટર ઓફ એક્ષેલેન્સ ફોર વાઇલ્ડ-લાઈફ એન્ડ કન્ઝર્વેશન સ્ટડીઝનાં ડાયરેકટરશ્રી અને લાઈફ સાયન્સ ડીપાર્ટમેન્ટનાં હેડશ્રી તરફ....

નકલ સાદર રવાનાઃ-

- માન.કુલપતિશ્રી/કુલસચિવશ્રીનાં અંગત સચિવશ્રી.
- પરીક્ષા નિયામકશ્રી, ભક્તકવિ નરસિંહ મહેતા યુનિવર્સિટી, જુનાગઢ

નકલ રવાના જાણ તથા યોગ્ય કાર્યવાહી અર્થેઃ

- સીસ્ટમ મેનેજરશ્રી, આઇ.ટી.સેલ વિભાગ (વેબસાઇટ ઉપર પ્રસિદ્ધ થવા અર્થે.)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY

Major

Syllabus of Certificate course as per NEP-2020

Faculty of Life Sciences

Effective from June 2025

Subject: Wildlife Sciences

Duration: Six Months (1 Semester)

Bhakta Kavi Narsinh Mehta University Junagadh

Faculty of Life Sciences
Subject: Wildlife Science

Programme: Certificate Course in Wildlife Sciences

Detailed curriculum, Rules and Regulations for Short term Certificate Course (wef June 2025)

BHAKTA KAVI NARSINH MEHTA UNIVERSITY

Major

Syllabus of Certificate course as per NEP-2020

Faculty of Life Sciences

Effective from June 2025

Subject: Wildlife Sciences

Duration: Six Months (1 Semester)

SUMMARY OF THE SYLLABUS

Sem No.	Sr. No.	Category of Course	Course Title	Course Level	Credit	Teaching Hrs.	SEE Marks	CCE Marks	Total Marks	Exam Duration
Sem-1	1	Major-1	Fundamentals of wildlife and conservation biology		4	60	50	50	100	2 hours
	2	Major-2	Advanced tools in wildlife research		4	60	50	50	100	2 hours
	3	Major-3	Practical		4	120	50	50	100	2 hours
	4	Major-4	Project report		8	240	100	100	200	
				Total	**20**	480			500	

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Course Level	4.5		**Internal Marks**	50
Programme	Certificate course		**External Marks**	50
Semester	1		**Practical Internal**	25
Category of Course			**Practical External**	25
Course Credit	06 (4 Theory, 2 Practical)		**Prac. External Exam Duration**	2 hours
Teaching Hours	120		**Total**	150
Course Code	CCWLS01		**Exam Duration**	2 hours
Course Title	Fundamentals of wildlife and conservation science			

Course Level	4.5		**Internal Marks**	50
Programme	Certificate course		**External Marks**	50
Semester	1		**Practical Internal**	25
Category of Course			**Practical External**	25
Course Credit	06 (4 Theory, 2 Practical)		**Prac. External Exam Duration**	2 hours
Teaching Hours	120		**Total**	150
Course Code	CCWLS02		**Exam Duration**	2 hours
Course Title	Advanced tools in wildlife research			

Course Level	4.5		**Internal Marks**	100
Programme	Certificate course		**External Marks**	100
Semester	1		**Practical Internal**	--
Category of Course			**Practical External**	--
Course Credit	8		**Prac. External Exam Duration**	
Teaching Hours	240		**Total**	200
Course Code	CCWLS04		**Exam Duration**	
Course Title	Project work			

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Subject: Wildlife Sciences

Duration: Six Months (1 Semester)

Course Objectives:

Wildlife Science focuses on the biology and management of wild animals, plants and microorganisms including the ecology and conservation as well as their natural habitat including. As a wildlife scientist, one will study native and exotic species in natural or created environments, their biodiversity and human-wildlife interactions, and to evaluate wildlife management programs for captive and free-ranging wildlife.

Course Learning Outcomes: After completion of the course:

~ Knowledge of wildlife conservation, and a critical understanding of concepts such as sustainability and sustainable development

~ An understanding of ecological networks and ecosystem services.

~ An understanding of environmental changes and the consequences.

~ Approaches to habitat restoration.

~ Understanding of socio-political and ethical dimensions of conservation problems.

~ Transferable skills necessary for employment.

Course Contents

Sem	Paper	Unit No.	Syllabi	Teaching Hours
1	CCWLS01	1	Biogeography and Biological diversity	**30**
		2	Introduction to Indian wildlife and habitats	**30**
		3	Conservation biology	**30**
		4	Research in wildlife sciences	**30**
1	CCWLS02	1	Biodiversity Conservation of India	**30**
		2	Ecology, Population Biology, and Human-Wildlife Interface	**30**
		3	Wildlife Laws, Policies, and Governance	**30**
		4	Wildlife Research Design and Field Techniques	**30**

Suggested Reading:

1. Conservation Biology for All by N S Sodhi and P R Ehrlich (2010), Oxford University Press
2. Biodiversity: challenges for science and governance by Michel Loreau (2007), Jardin botanique de Montréal
3. Wildlife Ecology, Conservation and Management by John M Fryxell et al., (2014), Wiley Blackwell
4. Evolution by Mark Ridley (2004), Blackwell Publishers
5. Principles of Environmental Sciences by Joeri Bertels and Henk Bezemer (2009), Springer Science

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Duration: Six Months (1 Semester)

INTERNAL EVALUATION SCHEME		
NO	**Particulars**	**Marks**
1	**Mid Semester Exam (Mandatory)**	**25**
2	Class Test	05
3	Open book exam/test	05
4	Open note exam/test	05
5	Self-test/ Online test	05
6	Essay/Article writing	05
7	Quizzes/Objective test	05
8	Class assignment	05
9	Home assignment	05
10	Reports Writing	05
11	Research/Dissertation	05
12	Case Studies	05
13	Viva/Oral exam	05
14	Group Discussion	05
15	Role Play	05
16	Paper presentation/Seminar	05
17	Language Lab work	05
18	Interview	05
19	Craft work	05
20	Co-curricular work	05
21	Field Assignment	05
22	Poster Presentation	05
23	Attendance	05
24	Project Work	05
	Total	**50**

Note: Sr.No.1 is mandatory. Select any five from Sr.No.2 to 24. Each Contains five marks. Student should secure 18 Marks for passing in internal Exam.

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Subject: Wildlife Sciences

Duration: Six Months (1 Semester)

Paper Style

Ques. No.	Particulars	From which Unit	Marks
1	Descriptive question/ short notes from unit 1	1	10
2	Descriptive question/ short notes from unit 2	2	10
3	Descriptive question/ short notes from unit 3	3	10
4	Descriptive question/ short notes from unit 4	4	10
5	Short questions of one/two marks	From Each Unit	10
		Total Marks	50

Paper Style: Practical

Ques. No.	Particulars	Marks
1	Perform as per the instructions Major Exercise	20
2	Perform and explain to the examiner Minor Exercise	10
3	Do as directed	10
4	Field report and Viva voce	10
		50

CERTIFICATE COURSE IN WILDLIFE SCIENCES

CCWLS01: Fundamentals of Wildlife and Conservation Biology

Unit 1: Biogeography and Biological diversity

Classical biogeography: Continental drift, dispersal, bio-geographical realms and provinces

Applied biogeography, biogeographical process, endemism, refugia. The differences between plant and animal geography. Biogeographic classification of India.

Concept of Biodiversity, types and levels of biodiversity, Biodiversity hotspots and types of species

Outline of Diversity of plant, animals and microorganisms

Unit 2: Introduction to Indian wildlife and habitats

Concept and scope of wildlife, wildlife as a natural resource, threatened wildlife in India

Wildlife management history and current practices

Wildlife population estimation

Concept of habitat, habitat and niches, Important habitats of Indian subcontinent and India

Habitat suitability and evaluation techniques

Unit 3: Conservation biology

Introduction to conservation biology, types of conservation, conservation ethics

Biological consequences of habitat fragmentation, covering barriers and isolation, edge effects, ecological corridors

Human-wildlife interactions and human dimension in management

Community based conservation, role of different organizations in conservation

Ecological restoration and its significance in conservation

Unit 4: Research in wildlife sciences

Concept of scientific research, Basic descriptive statistics and non-parametric statistics

Basics of scientific writing, referencing and literature review

Formation of scientific article and presentations

General introduction of Remote sensing, GIS and their applications in wildlife research

CCWLS 02: Advanced tools in wildlife research

Unit 1: Biodiversity Conservation of India

Introduction to Wildlife Science and its scope. Classification and identification of Indian fauna, IUCN Red Data Book and threat categories, Endangered species and their conservation status.

Key conservation efforts in India: Project Lion, Species Recovery Programmes (Dugong, Dolphin, Swamp Deer, Great Indian Bustard, Vultures)

Role of national and international NGOs: GEER Foundation, WCBRF, BCSG, WWF, BNHS, WTI, WCS, BirdLife International, Wetlands International

Unit 2: Ecology, Population Biology, and Human-Wildlife Interface

Population dynamics and growth models, Carrying capacity and population regulation

Community structure, species interaction, and succession, speciation, dispersal, and migration

Association between plants and animal, their adaptation and survival.

Human-wildlife conflict: causes, case studies, and mitigation strategies

Unit 3: Wildlife Laws, Policies, and Governance

Indian Wildlife Protection Act, 1972

Forest Conservation Act, 1980; Environment Protection Act, 1986

Biodiversity Act, 2002; Forest Rights Act, 2006

Conservation on International Trade in Endangered Species (CITES)

Environmental Impact Assessment (EIA)

Role of statutory bodies: National Green Tribunal, Pollution Control Boards, State Biodiversity Boards

Concepts: community reserves, private forests, sacred groves, and coastal regulation zones

Unit 4: Wildlife Research Design and Field Techniques

Research design: basics, ethics, and biases, Sampling methods, errors, and limitations

Wildlife population estimation techniques (line transects, camera trapping, etc.)

Data types: primary vs. secondary

Field techniques in wildlife research: Instruments and gears, Designing and implementing field studies, Data and sample collection, storage, and management

CCWLS03: Practical and exposure visit

A student can take practical classes as per the schedule and with prior approval of the head of the programme. The student taking the practical classes have to prepare and submit the practical journal in the examination followed by the practical exam and viva voce.

At least one field excursion visit to any Protected Area/ Ecotourism site within Gujarat should be conducted and the report of the same should be submitted in the final examination.

List of Practical:

1. Determination of different population parameters:
    a. Density b. Abundance c. Diversity d. Dominance
2. Species-area curve method
3. Study of population dynamics using examples
    a. Population growth rate
    b. Carrying capacity
    c. Population doubling time
4. Demonstration of different field instruments
5. Mapping of different biogeographic zones and biomes in India

CCWLS04: Project Report

The students have to select a short-term research project related to conservation genetics and prepare the report of the same to submit at the end of course. The same will be evaluated at the time of final examination followed by Viva voce.

The student can also work in any relevant institution with the prior permission of the head of the department. In such cases one of the faculty members from the department will act as a co-supervisor.