

**M.SC.PROSPECTUS AND ADMISSION GUIDELINES**

**2025-26**

DEPARTMENT OF  
**ZOOLOGY**



सत्यं शिवं सुन्दरम्

**FACULTY OF SCIENCE**

**THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA**

**VADODARA, GUJARAT, INDIA 390 002**

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# HIS HIGHNESS MAHARAJA SAYAJIRAO GAEKWAD-III

## VISION AND MISSION AS PERCEIVED BY H. H. MAHARAJA SAYAJIRAO GAEKWAD-III



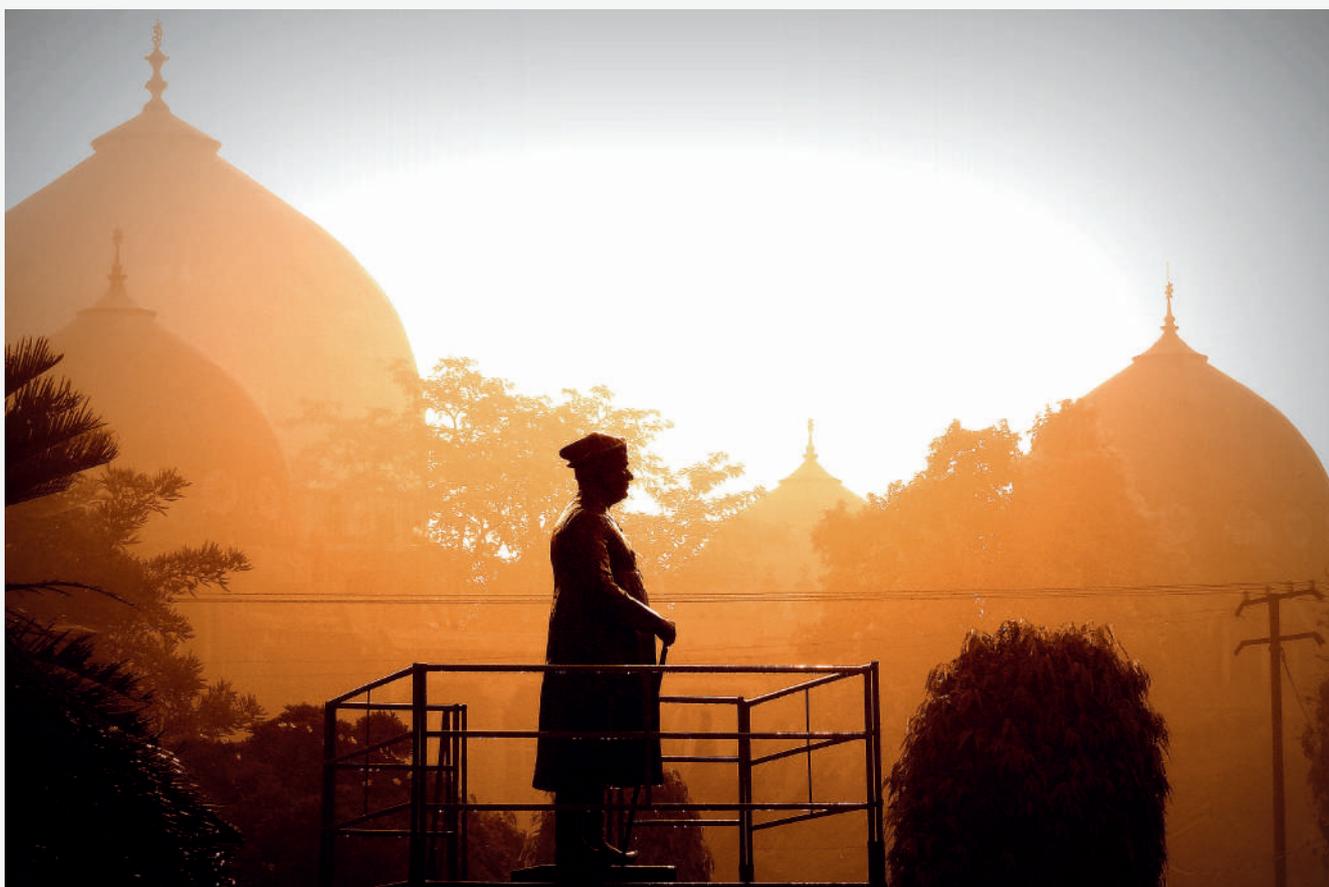
*"The progress of a nation requires that its people should be educated. Knowledge is a necessity of man. It instills in him a desire to question and to investigate, which leads him on the path of progress. Education, in the broadest sense, must be spread everywhere. Progress can only be achieved by the spread of education. Cooperation is necessary to achieve any worthy end and this readiness to cooperate will not be found in people if they are not educated"*

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# FACULTY OF SCIENCE

India's internationally renowned **The Maharaja Sayajirao University of Baroda** (Accredited Grade "A+" by NAAC) has blossomed from the Baroda College which is one of the oldest centers of learning in western India. The Maharaja Sayajirao University of Baroda is the only state university with a residential, unitary character having English as sole medium of instruction. Faculty of Science is a constituent institution of The Maharaja Sayajirao University of Baroda under its direct management and control. Faculty began as an integral part of Baroda College which was founded by His Highness Sir Sayajirao Gaekwad of Baroda in the year 1881. He also started the Sayaji Jubilee Institute in 1933 and housed all science subjects under it.

The efforts of establishing a Residential University at Baroda was initiated by Maharaja Sayajirao in 1908, and it became a reality during the rule of His Highness Pratapsinhrao Gaekwad. The Maharaja Sayajirao University of Baroda came into existence on 30th April 1949. Through the constitution of the University, all the science departments were reconstituted as Faculty of Science. The Faculty of Science steadily made significant strides in various disciplines of science and attracted students from all over India and from other countries. It soon developed into a cosmopolitan center of education. The growth of the faculty thus amply complimented the pioneering efforts of the great visionary, Maharaja Sayajirao Gaekwad, who had taken great pains to improve science education.



# ABOUT DEPARTMENT OF ZOOLOGY



The department of Zoology has an impeccable history with eminent faculty who were stalwarts in classical zoology. The syllabus, teaching methods and research approaches to date, have always been crafted with utmost care to be at par with the peer educational fraternity. The present day curriculum is a fine balance of Classical zoology, Applied biology and field oriented studies.

Indulging oneself in learnings at our department shall definitely be a purposeful experience. Awards through the funding agencies, include DRS in 1982 and later continued as DSA from 1992-2003. Further recognition of research activities resulted into funding through COSIST and FIST Programs.

Department also received Infrastructure development grant under UGC-BSR scheme. Various funding agencies like UGC, ICMR, ICAR, DST-SERB, DBT, MoES, GSBTM, GBB etc. has provided funds for several research projects. The Department puts together all of its expertise and resources to always deliver the best to its students



# PROGRAMME DETAILS

## MASTER OF SCIENCE IN ZOOLOGY

<b>TITLE OF THE COURSE</b>	<b>M.SC. ZOOLOGY</b>
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<b>LEVEL</b>	<b>POST GRADUATE</b>
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<b>DURATION</b>	<b>02 YEARS (4 SEMESTERS)</b>
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<b>ADMISSION TAKEN BY OPEN TEST</b>	<b>YES</b>
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<b>SANCTIONED INTAKE</b>	<b>#36</b>
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<b>REGULAR/PART-TIME</b>	<b>REGULAR</b>
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<b>GRANT-IN AID/HIGHER PAYMENT</b>	<b>GRANT-IN AID</b>
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<b>ELIGIBILITY</b>	<b>SEE IN ADMISSION PROCEDURE</b>
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# M.SC. ZOOLOGY COURSE DETAILS

CODE	COURSE DETAILS	CREDIT
<b>SEMESTER-I</b>		<b>25 Cr</b>
<b>THEORY:</b>		
<b>ZOL2101C01</b>	Evolutionary Biology and Animal Phylogeny	4 Cr
<b>ZOL2102C02</b>	Physiological Chemistry	4 Cr
<b>ZOL2103C03</b>	Quantitative Biology, Instrumentation and Techniques in Biology	4 Cr
<b>ZOL2104C04</b>	Cell and Molecular Biology - I	4 Cr
<b>PRACTICAL:</b>		
<b>ZOL2105C05</b>	Practical - I: Evolutionary Biology and Animal Phylogeny	2 Cr
<b>ZOL2106C06</b>	Practical - II: Physiological Chemistry	2 Cr
<b>ZOL2107C07</b>	Practical - III: Quantitative Biology, Instrumentation and Techniques in Biology	2 Cr
<b>ZOL2108C08</b>	Practical - IV: Cell and Molecular Biology - I	2 Cr
<b>ZOL2109C09</b>	Seminar - I	1 Cr

# M.SC. ZOOLOGY COURSE DETAILS

CODE	COURSE DETAILS	CREDIT
<b>SEMESTER-II</b>		<b>25 Cr</b>
<b>THEORY:</b>		
<b>ZOL2201C01</b>	Cell and Molecular Biology-II	4 Cr
<b>ZOL2202C02</b>	Genetics	4 Cr
<b>ZOL2203C03</b>	Environmental and Conservation Biology	4 Cr
<b>ZOL2204C04</b>	Biophysical Principles and Ethology	4 Cr
<b>PRACTICAL:</b>		
<b>ZOL2205C05</b>	Practical - V: Cell and Molecular Biology-II	2 Cr
<b>ZOL2206C06</b>	Practical - VI: Genetics	2 Cr
<b>ZOL2207C07</b>	Practical - VII: Environmental and Conservation Biology	2Cr
<b>ZOL2208C08</b>	Practical - VIII: Biophysical Principles and Ethology	2 Cr
<b>ZOL2109C09</b>	Seminar - II	1 Cr

# M.SC. ZOOLOGY COURSE DETAILS

CODE	COURSE DETAILS	CREDIT
<b>SEMESTER-III</b>		<b>25 Cr</b>
<b>THEORY:</b>		
ZOL2301C01	Endocrinology, Chronobiology and Human Physiology	3 Cr
ZOL2302C02	Developmental Biology and Neurobiology	3 Cr
ZOL2303C03	Animal Biotechnology and Immunology	3 Cr
ZOL2311C11	Elective Paper: Avian Biology and Wild life Biology - I	3 Cr
ZOL2312C12	Elective Paper: Avian Biology and Wild life Biology - II	3 Cr
ZOL2308C08	Elective Paper: General and Applied Toxicology - I	3 Cr
ZOL2309C09	Elective Paper: General and Applied Toxicology - II	3 Cr
<b>PRACTICAL:</b>		
ZOL2305C05	Practical- IX: Endocrinology, Chronobiology and Human Physiology	2 Cr
ZOL2306C06	Practical - X: Developmental Biology and Neurobiology	2 Cr
ZOL2307C07	Practical - XI: Animal Biotechnology and Immunology	2 Cr
ZOL2313C13	Practical - XII: Avian Biology and Wild life Biology	2 Cr
ZOL2310C10	Practical - XIII: General and Applied Toxicology	2 Cr
ZOL2304C04	Seminar - III	2 Cr

# M.SC. ZOOLOGY COURSE DETAILS

Code	Course details	Credit
<b>SEMESTER - IV</b>		<b>25 Cr</b>
COMPULSORY COURSE (THEORY):		
ZOL2401C01	Biomimetics, Zoonotic diseases	4 Cr
ELECTIVE COURSE: (ANY TWO from Practical XIV- XVII )		
ZOL2405C05	Practical XIV- Research Methodology	2 Cr
ZOL2406C06	Practical XV- Regulatory compliances/affairs	2 Cr
ZOL2407C07	Practical XVI- Experimental models in Biomedical Research	2 Cr
ZOL2408C08	Practical XVII- Computational Biology	2 Cr
ZOL2402C02	Dissertation (Compulsory)	12 Cr
ZOL2403C03	Seminar-IV	2 Cr
ZOL2404C04	Comprehensive Viva Voce	3 Cr

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# ADMISSION PROCEDURE

To apply, candidates must complete the online application form through the Gujarat Common Admission Services (GCAS) portal. The application link is: <https://gcasstudent.gujgov.edu.in/applicants/login.aspx>. A student willing to apply for more than one MSc Program should submit separate application for each and **the application form fee in such cases will have to be paid separately for each course/program.** The students who have applied and fulfill the criteria of minimum qualifications for eligibility can appear in the entrance examination. A **written**

**Entrance Test will be conducted** for deciding admission to each programme. **The admissions will be strictly based on the merit of marks obtained in written Entrance Test.**

INTAKE CAPACITY: **36 SEATS**

**ENTRANCE TEST: DATE: 13-06-2025, FRIDAY  
TIME: 2.30 PM TO 4.00 PM VENUE: FACULTY OF SCIENCE**

## Eligibility criteria

The admission is based on the merit of entrance test only. To appear in entrance test, following eligibility criteria is to be fulfilled:

**1.** A student with B. Sc. or an equivalent degree (10+2+3 pattern of education) in the relevant subject from a university in any state or Union Territory of India or a global University/ Education Institution recognized by The Maharaja Sayajirao University of Baroda is eligible. The minimum marks/ grade points in qualifying examination shall be as follows:

**i. For general category candidates**

50% or equivalent grade points (considering all the three years).

**ii. For SC/ST candidates**

Must have passed qualifying examination.

**iii. For SEBC candidates**

45% or equivalent grade points for applicants from Gujarat and 50 % or equivalent grade points for applicants from other states and Union Territories in India.

**2.** Candidates who have appeared for final year of the qualifying examination may also apply and appear in the Entrance Test. However, their admission will be confirmed only on the submitting original marksheet of the qualifying examination and fulfillment of eligibility requirement, at the time of Admission

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## CRITERIA FOR CASTE-WISE RESERVATION AND OTHER QUOTA

Government of Gujarat rules for the reservation quota will be applied: **SC: 7%, ST: 15%, SEBC: 27%, General: 51%**. All original certificates should be produced at the time of document verification and admission.

**If any relevant certificate is not produced at the time of admission, the student will NOT be considered for particular reservation category.**

**A student, irrespective of her/his reservation category, for admission, will be first considered for GENERAL category.**

**a.** The SC and ST students of other than the Gujarat state should produce a certificate from competent authority of Government of Gujarat if their original certificate DO NOT indicate that their caste / Tribe is recognized under such category in Gujarat also.

**b.** The SEBC category are required to produce a valid non creamy layer certificate from competent authority.

**c.** There will be 10 % supernumerary seat (additional seats over and above the total number of seats) reservation of the total seats for Economically Weaker Sections (EWS). Within this 10% quota, 33% seats shall be further sub-reserved for female students belonging to the same Economically Weaker Sections.

**d.** Reservation for physically disabled students: 5% seats of the total seats (to be included under each different category with in the limit of total reservation under a particular reservation category like SC/ST/SEBC/GEN) are reserved for the persons with benchmark disability in accordance with the provisions of the section 32 of the rights of persons with Disabilities ACT, 2016. They should produce a current/recent year certificate of Civil Surgeon stating the type of disability, extent (%) of disability and state (Progressive/ non-progressive) of disability. Only those students who have minimum 40% disability are eligible to be considered for the reservation.

**e.** Reservation for Defence & Ex/In- Servicemen: 1% seats of the total seats (to be included under each different category with in the limit of total reservation under a particular reservation category like SC/ST/SEBC/GEN) are reserved for wards of Defence & Ex/In-Servicemen.

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## CRITERIA FOR CASTE-WISE RESERVATION AND OTHER QUOTA

**f.** Reservation for Kashmiri Migrants: 1% supernumerary seat reservation quota (Additional seats, NOT included under each different category with in the limit of total reservation under a particular reservation category like SC/ST/SEBC/GEN).

**g.** Advantage to Sports Persons: Please note that the benefit to sports persons is granted ONLY if the student has participated/ awarded medals in State level or higher level competitions.

- Students who participated at State level: 3% marks to be added to their eligibility marks
- Students who won medal at State level or participated at National level: 5% marks to be added to their eligibility marks

Students who have won medal at National level or participated / won medal at International level: to be granted Direct admission.

**h.** Reservation for wards of MSU Staff: 01% supernumerary seat reservation quota (Additional seats, NOT included under each different category with in the limit of total reservation under a particular reservation category like SC/ST/SEBC/GEN) only in Regular Payment Fee Category for the wards of the permanent or temporary employees of The Maharaja Sayajirao University of Baroda. They should produce relevant documents at the time of admission.

**i.** If the seats remain vacant after stipulated admission rounds in the SC or ST reservation categories, then these seats can be interchanged among SC and ST.

**j.** After granting admission to all the students of any reserve category on respective reserve seats, if the reserved category seats remain vacant then these seats shall be transferred to General (Unreserved) category seats.

**Supernumerary seats which remain vacant shall NOT be transferred to any other category.**

Admission Fees is to be paid through online mode only.

**CASH/CHEQUE OR ANY OTHER MODE OF TRANSACTION NOT ACCEPTED**

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## INSTRUCTIONS TO THE CANDIDATE

1. The admissions will be strictly based on the merit. Just fulfilling the eligibility criteria DOES NOT GUARANTEE admission.
2. The admission to the course is PURELY TEMPORARY and subjected to various scrutiny till the unique Permanent Registration Number (PRN) of the candidate is generated.
3. If the information provided by the candidate is incorrect or if any unfair practice is followed or the candidate is unable to submit any of the required certificates in the stipulated time period, his/ her admission is liable to cancellation.
4. Maintenance of Stipulated Attendance of Students (Ordinance 183)  
The following shall be the minimum attendance necessary:
  - a. In a semester an overall attendance of at least 75% of the number of lectures delivered and tutorials, seminars etc. arranged in all subjects, provided the total attendance in each of the subjects offered is at least 60%.
  - b. In a semester an overall attendance of at least 80% of the days allotted for practical classes and laboratory work in each subject.
5. General rules governing the conduct of students in the university:
  - i. A student must do nothing either inside or outside the University that will interfere with its orderly working and discipline.
  - ii. This comprehensive rule covers most cases that are likely to arise. It forbids:
    - a. Impolite or unseemly behaviour in classroom or University premises during working hours of the College and the Faculty.
    - b. Attempt to persuade other students to abstain themselves from regular classes.
    - c. Damage to or defacement of University furniture, fittings and property.
    - d. Disobedience of notifications or instructions issued by the Principals/Deans/Heads of the Departments and Members of the staff duly authorized.
  - iii. As per UGC regulation, stipulated attendance (Ordinance 183) is required for permitting students to appear for final examination. If unavoidably absent on account of health, urgent private affairs or other reasons, they must be prepared to state the exact reason for absence.
  - iv. Students are expected to behave with courtesy towards the members of the staff, their fellow students and all visitors to the Institution.

## INSTRUCTIONS TO THE CANDIDATE

v. Sexual harassment will lead to severe punishments like suspension, rustication from the University / College/ Institution. Disciplinary action is as prescribed under The M. S. University of Baroda rules..

vi. Ragging is prohibited on MSU Campus, ragging is a criminal offence and is liable to severe punishment, including suspension, rustication and imprisonment.

vii. Compulsory Thalassemia Blood Screening: Thalassemia blood testing is made compulsory by Government of Gujarat. Final Eligibility of any student for admission to any course to this University will be granted ONLY after she/ he submits report of the Thalassemia blood screening. Students are encouraged to get the test done and submit the report at the time of Admission. Those students who already have a Thalassemia Test Report done earlier, need not get it done again. They can submit copy of earlier report.

### GRADE POINT SYSTEM

A system comprising of 7 grade points (4 to 10) will be followed for evaluating a candidate in every course. Both mid-semester and end-semester exams are counted for final grade points.

Grade Points	Description	Percentage of Marks	Division / Grade	Range
10	Outstanding	90% - 99%	First / O	Above 9.01
9	Excellent	80% - 89%	First / A	8.01 - 9.00
8	Very Good	70% - 79%	First / B	7.01 - 8.00
7	Good	60% - 69%	First / C	6.01 - 7.00
6	Fair	50% - 59%	Second / D	5.01 - 6.00
5	Average	40% - 49%	Pass / E	4.01 - 5.00
4 - 0	Dropped	Below 40%	F	Below 4.00

CGPA	Class
CGPA $\geq$ 7	Distinction
6 = CGPA < 7	1st Class
5 = CGPA < 6	2nd Class
4 = CGPA < 5	Pass Class
CGPA < 4	Fail

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## INSTRUCTIONS TO THE CANDIDATE

**Grade Point Average =  $\sum (\text{Credit X Grade Point}) / \text{Total Credits}$**

### **AWARD OF CLASS**

Marks-sheets of semester I to III of M. Sc. will simply indicate result as either Pass or Fail or ATKT but not the class which will be indicated in the last Semester mark sheet.

Cumulative Grade Point Average (CGPA) is computed as:

**CGPA =  $\sum (\text{Semester credits X GPA}) / \text{Total Semester Credits}$**

The sum is taken over from Sem-I to Sem-IV for M. Sc.

### **CRITERION FOR M.Sc. DEGREE AWARD**

For obtaining M.Sc. degree in any subject, a candidate has to earn minimum 100 credits in all during the programme.

For complete details regarding the Entrance Examination structure, syllabus, schedule, and sample questions, please click the link below:

[Click here to view the full Entrance Examination Document](#)

Website: [www.msubaroda.ac.in](http://www.msubaroda.ac.in)

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# STAFF & TEAM MEMBERS

THE FACULTY MEMBERS OF THE DEPARTMENT OF ZOOLOGY ARE EXPERIENCED, WELL QUALIFIED AND TRAINED IN REPUTED INSTITUTES IN INDIA AND ABROAD.

EACH OF THEM HAVE A GOOD TRACK RECORD IN TERMS OF RESEARCH AND PUBLICATIONS.

## TEACHING FACULTY DESIGNATION

- PROFESSOR
  1. DR. B. SURESH (HEAD OF THE DEPARTMENT)
  
- ASSOCIATE PROFESSOR
  1. DR. PRAKASH PILLAI
  2. DR. HETAL ROY
  
- ASSISTANT PROFESSOR
  1. DR. RANJITSINH DEVKAR
  2. DR. UK GOWRI KUMARI
  
- ASSISTANT PROFESSOR (TEMP.)
  1. DR. ANKITA SHALUNKE
  2. DR. ANAAL ENGINEER
  3. DR. ARCHANA YADAV
  4. DR. ADARSH KUMAR
  5. DR. CHANDNI VALODKAR
  6. DR. DIVYANGI PATEL
  7. DR. SMITA YADAV
  8. DR. DHAVAL BHATT
  9. DR. NISHI PANDYA
  
- TEACHING ASSISTANT (TEMP.)
  1. DR. NIKETA MAHETA
  2. DR. KRUPAL PATEL

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# THRUST AREAS OF RESEARCH

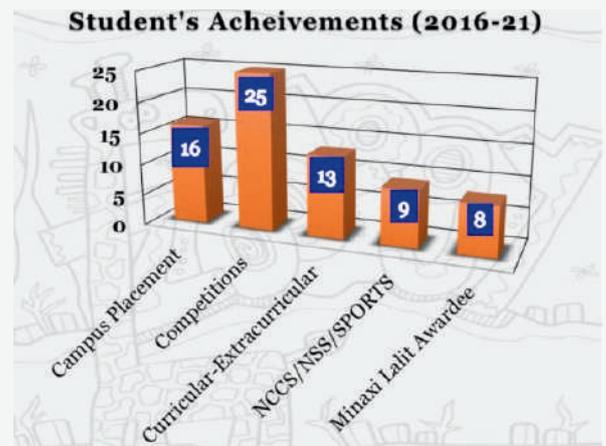
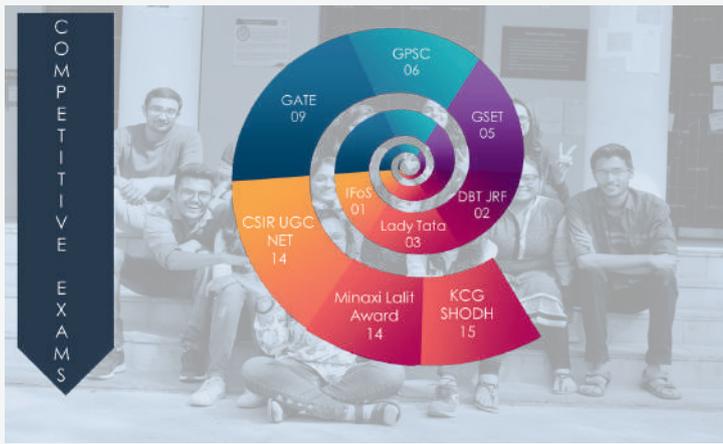
1. ANIMAL SYSTEMATICS, ECOLOGY & WILDLIFE BIOLOGY
2. INSECT PHYSIOLOGY
3. NEUROBIOLOGY
4. DEVELOPMENTAL AND MECHANOBIOLOGY & TOXICOLOGY
5. WOUND REPAIR AND REGENERATION
6. GENOMICS & SYSTEMS BIOLOGY
7. CHRONOBIOLOGY & METABOLIC ENDOCRINOLOGY
8. NUTRIGENOMICS & CANCER BIOLOGY



# STUDENTS' ACHIEVEMENTS & ACTIVITIES

OUR STUDENTS AT THE UG, PG AND RESEARCH LEVELS, CLEARED VARIOUS NATIONAL COMPETITIVE EXAMS.

THEY ALSO PARTICIPATE IN VARIOUS NATIONAL AND INTERNATIONAL CONFERENCES, CONDUCT AND PARTICIPATED IN VARIOUS ACTIVITIES FAVORING WILDLIFE CONSERVATION AND SEEK KNOWLEDGE IN THE FIELD





# NOTABLE ALUMNI OF THE DEPARTMENT



**PROF. RAMESH GOYAL**  
FORMER VICE CHANCELLOR,  
MSUB



**DR. VINAY BHARGAV**  
IFS



**PROF. V. SHAH**  
FORMER VICE CHANCELLOR,  
MSUB



**DR. VADAYIL  
SANKARAN VIJAYAN**



**DR. SMRITI IYENGAR**



**GROUP CAPTAIN HEMANT  
SINGH CHAUHAN**

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# FACULTY OF SCIENCE ADMINISTRATION

THE M. S. UNIVERSITY OF BARODA ADMISSION PORTAL:  
[admission@msubaroda.ac.in](mailto:admission@msubaroda.ac.in)

THE INFORMATION CONTAINED HEREIN IS FOR GENERAL  
GUIDELINES ONLY.

FOR FURTHER INFORMATION CONTACT FACULTY ADMINISTRATION:

**PROF. HARIBHAI KATARIA**  
**DEAN, FACULTY OF SCIENCE**

E-mail: [dean-science@msubaroda.ac.in](mailto:dean-science@msubaroda.ac.in)

**DR. SEJAL SHAH, DR. SANKET CHAROLA: GCAS COORDINATOR**

**DR. PRUTHVIRAJ H. SONI: FACULTY STUDENT COORDINATOR**

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**MS. BHARATI M PAMNANI, DR. RUPAL SHAH: CBCS COORDINATORS**

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**OFFICE SUPERINTENDENT: MR. K M DAMOR**

PH: 0265 2795329 (OFFICE)

MOB: 8141332160 (DURING OFFICE HOURS ONLY)



सत्यं शिवं सुन्दरम्

THE FULL-BLOWN LOTUS GROWING OUT OF THE LAKE SYMBOLISES THE EMERGENCE OF THE MIND AND ITS TRIUMPH OVER MATTER. THE FLAME RISING FROM THE CENTER OF THE LOTUS IS THE FLAME OF THE HUMAN KNOWLEDGE, SPREADING LIGHT AND LEARNING FOR THE COMING GENERATIONS. THE MOTTO INSCRIBED BELOW THE LOTUS DEFINES THE PURPOSE AND EXISTENCE OF LIFE WHICH IS LOVE OF BEAUTY, GOODNESS AND INTELLECTUAL CURIOSITY."

### महाराजा सयाजीराव विश्वविद्यालय गीत

अमे वडोदराना विद्यापीठना सपना सारवनारा  
अमे ज्योत जलावी सृष्टी नवली सहसा सर्जनहारा.

अमे गगमकुसुम कर धरनारा  
अमे मगन मगन थई फरनारा  
अगन बाथ अमे भरनारा  
अमे दैन्यतिमिरने हरनारा.

श्री सयाजी विद्यापीठना ज्ञानदीपने धरनारा  
सत्यं शिवं सुन्दरम् नो मंत्र अनंतर भणनारा.

सयाजीराव

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ADMISSIONS OPEN FOR GUJARAT'S LEADING STATE UNIVERSITY  
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA  
FOR DETAILS VISIT  
[admission.msubaroda.ac.in](http://admission.msubaroda.ac.in)

CONTACT

**PROF. SURESH BALAKRISHNAN**

**HEAD, DEPARTMENT OF ZOOLOGY**

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