MISSION STATEMENT

Vision and mission as perceived by H. H. Majaraja 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.
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 Late His Highness Sir Sayajirao Gaekwad III of Baroda in the year 1881. He also started the Sayaji Jubilee Institute in 1933 and housed all science subjects under it. Foundation stone of Sayaji Jubilee institute was laid by Sir Daniel Rufus Isaacs, then Viceroy and Governor General of India in 1926. The efforts of establishing a Residential University at Baroda was initiated by Maharaja Sayajirao in 1908, but it became a reality only during the rule of Late 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.

Since 1949, the faculty offers courses leading to B.Sc., M.Sc., and Ph.D. degrees in Botany, Chemistry, Geography, Geology, Mathematics, Physics, Statistics and Zoology. Later, Departments of Microbiology and Biochemistry were added, which offers postgraduate courses. In recent years, Department of Computer Applications and Environment Studies were added which offer courses in B. C. A., B.Sc., M.Sc., and Ph.D. degrees.

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, who had taken great pains to improve science education.

M. Sc. PROGRAMME

This is a post graduate programme of four semester duration and comprises of 100 credits. Details are as follows:

Each year will be divided into two semesters. The faculty offers post graduate programme in following subjects:

- Biochemistry
- Botany
- Chemistry
- Geography
- Geology
- Mathematics
- Microbiology
- Physics
- Statistics
- Zoology
- Software Technology
- Biostatistics
- Environment Sciences
- PG Diploma in Applied Biochemistry
- Medical Biotechnology
- Applied Geology
- Petroleum Geology

CREDIT SYSTEM

A theory course requiring instructions of 1 hour per week per semester is considered as One Credit theory course. In case of practical course, One Credit requires 2 hours laboratory teaching per week per semester.
ADMISSION PROCEDURE

The application form is to be filled online only. A student willing to apply for more than one subject should select the subjects/courses separately in online application. Such additional subject/course selection can be made with single ID only generated during the online application. **However, the form fee for different subjects will have to be paid separately for different courses.** All those students who have applied and fulfil the **minimum qualifications for eligibility**, given below can appear in the entrance examination. A written Entrance Test will be conducted for deciding admission to each degree programme. **The admissions will be strictly based on the merit of Entrance Test.**

ELIGIBILITY CRITERIA

1. **A minimum of 50% marks or equivalent grade in science subjects (considering all the three years) at B. Sc. (Honours) or equivalent degree from a university endorsed by the Maharaja Sayajirao University of Baroda, Vadodara.** The student must have studied relevant subject at B. Sc. For subjects like Biochemistry, Microbiology, PGD Applied Biochemistry and Medical Biotechnology; students with B. Sc. Degree in any of the life science subjects or chemical science subject are eligible.

2. There will be NO requirement of minimum percentage of marks in B. Sc. examinations in case of Schedule Caste (SC) and Schedule Tribe (ST) students; however, they should have passed the B. Sc. examination in relevant subject.

3. In case of Socially and Economically Backward Class (SEBC) students, there will be a relaxation of 5% marks at B. Sc. examination. They must produce non creamy layer certificate from competent authority of Government of Gujarat. Otherwise they will not be considered for admission under SEBC category.

4. The SC and ST students of other than Gujarat state should produce a certificate from competent authority of Government of Gujarat stating that the caste/tribe is recognised under SC/ST category in Gujarat also. Otherwise they will not be considered for admission under SC/ST category.

5. Candidates who have appeared for the final year of the qualifying examination may also apply and appear in the Entrance Test. However, the eligibility will be verified and admission will be confirmed only after production of the original mark sheet of the qualifying examination.

6. Students of other than MS University must submit Original Migration Certificate to get final eligibility from our university. This is needed for continuing registration in M.Sc. programme and getting the final degree after successfully completing the relevant programme.

7. Students with B. Sc. (Electronics) are NOT eligible for admission to M. Sc. in Physics.
Exam/ Selection mode: All India Level Written Entrance Test

<table>
<thead>
<tr>
<th>Day and Date</th>
<th>10.00 am</th>
<th>2.00 pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Room No.</td>
<td>Subject</td>
</tr>
<tr>
<td>Tuesday 14-06-2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microbiology</td>
<td>P1, P2, P4, Z57, Z Extn</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>Statistics</td>
<td>Stat 4, Stat 6</td>
<td>Geology</td>
</tr>
<tr>
<td>Physics</td>
<td>Geology Dept</td>
<td></td>
</tr>
<tr>
<td>Geology</td>
<td>P1, P2, P4, P38, P45, Chem 9</td>
<td></td>
</tr>
<tr>
<td>Wednesday 15-06-2016</td>
<td>B 1, B 2, B 29</td>
<td>Appl Geology</td>
</tr>
<tr>
<td>Botany</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoology</td>
<td>Z 57, Z Extn</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Environmental</td>
<td>P 1, P 2, P 4</td>
<td>PG Diploma in Appl. Biochemistry</td>
</tr>
<tr>
<td>Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>P 3, M 11, Stat 6, New Maths</td>
<td></td>
</tr>
</tbody>
</table>

Students can initiate the form filling process however, should incorporate required marks after the declaration of results and then only SUBMIT the form. If the result is not declared till the last date of filing online application then the students can finally SUBMIT the form without incorporating the marks. Such students should take out the print of the submitted form only before the entrance examination as the option of editing the form and incorporating marks may be available at later stage also before printing the form. Please visit the M S university website for details about last date of submitting the online forms and the application form fees.

INSTRUCTIONS TO THE APPLICANTS

1. No correspondence will be entertained in the matter of admission.

2. A copy of the online submitted and duly signed application form (available from website http://www.msubaroda.ac.in or http://msub.digitaluniversity.ac.in) needs to be produced at the time of the entrance test.

3. Self attested copies of the following certificates should be attached with the application:
   i. H. S. C. (12th Science) or equivalent mark sheet
   ii. Mark sheet or grade sheet of B. Sc. Or equivalent examination
   iii. School Leaving Certificate (for the proof of birth date)
   iv. Migration certificate (in case of students from other institutions)
   v. SC/ ST caste certificate/SEBC caste and non creamy layer certificate / physically handicap/ Defense person/ sports person certificate, as applicable, from competent authority.
4. The **SC and ST students of other than Gujarat state** should produce a certificate from competent authority of Government of Gujarat stating that their caste/tribe is recognised under SC/ST category in Gujarat state also.

5. The students of **SEBC category** are required to produce non creamy layer certificate from competent authority of Government of Gujarat.

6. The **physically handicapped** student should produce a recent 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 relaxation in eligibility criteria.

7. The **sports persons** who have participated at State/National/International level should authenticate their certificates from the Director, Physical Education Faculty, University Pavilion, The Maharaja Sayajirao University of Baroda, Vadodara. They will be granted relaxation in eligibility criteria only if their certificates are approved and validated.

**Note:** All original documents are to be produced while securing admission; the original documents will be retained by the University till the enrolment of the candidate and generation of unique PRN.

<table>
<thead>
<tr>
<th>Competent authority of Government of Gujarat for means:</th>
</tr>
</thead>
<tbody>
<tr>
<td>For SC/ST students: ANY ONE of (a) The Collector, (b) The Prant Officer, (c) The Mamlatdar, (d) The Mahalkari from Gujarat, (e) The Director of Social Welfare and</td>
</tr>
</tbody>
</table>

8. **No separate intimation regarding Entrance Test will be sent.** Only those students who have applied and fulfil the minimum qualifications are eligible to appear for the entrance test.

9. Those who have appeared for qualifying examination and their result is still awaited can also appear for the Entrance Test. However, their admission will be considered subject to passing the qualifying examination and fulfilling the eligibility criteria.

10. **The admissions will be strictly based on the merit of Entrance Test.** Just appearing in the Entrance Test or passing the Entrance Test DOES NOT ENTITLE a student to be considered for admission.

11. **Government of Gujarat rules for the reservation quota and relaxation in qualifying marks will be observed in admission** for SC/ST/SEBC/Physically handicapped/Defence persons/Sports person etc.

12. Allocation of seats for the students from The Maharaja Sayajirao University of Baroda, Vadodara, other Universities/Institutions of Gujarat and those from other states will be as per University rules.
13. The admission to the course is TENTATIVE until the Unique Permanent Registration Number of the candidate is not generated.

14. 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.

SEATS AVAILABLE FOR ADMISSION

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grant-In-Aid Seats</th>
<th>Higher Payment Seats</th>
<th>Total Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry</td>
<td>20</td>
<td>05</td>
<td>25</td>
</tr>
<tr>
<td>Botany</td>
<td>30</td>
<td>NA</td>
<td>30</td>
</tr>
<tr>
<td>Chemistry</td>
<td>45</td>
<td>10</td>
<td>55</td>
</tr>
<tr>
<td>Geography</td>
<td>30</td>
<td>NA</td>
<td>30</td>
</tr>
<tr>
<td>Geology</td>
<td>30</td>
<td>NA</td>
<td>30</td>
</tr>
<tr>
<td>Mathematics</td>
<td>96</td>
<td>NA</td>
<td>96</td>
</tr>
<tr>
<td>Microbiology</td>
<td>20</td>
<td>05</td>
<td>25</td>
</tr>
<tr>
<td>Physics</td>
<td>55</td>
<td>NA</td>
<td>55</td>
</tr>
<tr>
<td>Statistics</td>
<td>30</td>
<td>NA</td>
<td>30</td>
</tr>
<tr>
<td>Zoology</td>
<td>30</td>
<td>NA</td>
<td>30</td>
</tr>
<tr>
<td>Environment Sciences</td>
<td>NA</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Biostatistics</td>
<td>30</td>
<td>NA</td>
<td>30</td>
</tr>
<tr>
<td>Software Technology</td>
<td>NA</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Applied Geology</td>
<td>NA</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Petroleum Geology</td>
<td>NA</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Medical Biotechnology</td>
<td>NA</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>PG Diploma in Applied Biochemistry</td>
<td>NA</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

FEE STRUCTURE (For Semester I and II, Total): Subject to revision by the University.
Last year’s fees were as follows:

For Grant-In-Aid:
- Girls: Rs. 6900.00 per annum
- Boys: Rs. 8000.00 per annum

For Higher Payment Seats:
- For Girls and Boys: 41700.00 per annum
- Software Technology: Rs. 90000.00 per annum
- Environment Sciences: Rs. 70000.00 per annum

EVALUATION SCHEME

1. Theory: There will be mid-semester and end-semester examinations
   a. All mid-semester of B. Sc. Courses will be conducted by respective departments. End Semester examination will be conducted by the University.
   b. Mid-semester marks will have 30% weightage and will be carried forward in case of ATKT.
   c. End-semester marks will have 70% weightage.
   d. The marks obtained in mid & end semester examination will be taken into account for deciding the final grade of the course.
   e. Examination papers will contain 40% objective questions and 60% subjective questions. Internal choice up to 60% may be offered within the question.

2. All Practical courses will have continuous evaluation.

3. Seminar: Students have to present and participate in seminar conducted at the department level.
4. **Project work**: A student will have to opt for project work/ internship/ dissertation work as per syllabus of the department. The evaluation may include seminar presentation, viva-voce examination and content evaluation.

5. **Viva-voce**: Comprehensive viva-voce will be conducted at the end of 4th semester for 2 credits.

### GRADE POINT SYSTEM

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

**Grade Points:**

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

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

### AWARD OF CLASS

Marks-sheets of semester I to III will not indicate a class. It will simply indicate a result as either Pass or Fail or ATKT.

<table>
<thead>
<tr>
<th>CGPA</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGPA &lt; 4</td>
<td>Fail</td>
</tr>
<tr>
<td>4 = CGPA &lt; 5</td>
<td>Pass Class</td>
</tr>
<tr>
<td>5 = CGPA &lt; 6</td>
<td>2nd Class</td>
</tr>
<tr>
<td>6 = CGPA &lt; 7</td>
<td>1st Class</td>
</tr>
<tr>
<td>CGPA ≥ 7</td>
<td>Distinction</td>
</tr>
</tbody>
</table>

Cumulative Grade point Average (CGPA) is computed as (the sum is taken over from Sem-I to Sem-IV):

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

### 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.
Note: The Dean, Faculty of Science is authorized to resolve any issue related to any course or in the proposed examination structure.

FOR FURTHER INFORMATION CONTACT:

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Note: The information contained in this prospectus is for general guideline only and is subject to change from time to time by the University.

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"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 बोडळाना विद्यापीठना सपना सारवानारा,
अमे ज्योत जलावी सृष्टी नवली सहसा सर्वनाहार.

अमे गगमकुसुम कर धरनारा,
अमे मगन मगन थई फरनारा,
अगन बाध अमे भरनारा,
अमे दैन्यतिमिरने हरनार.

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

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