



**DEPARTMENT OF LIFE SCIENCES**

**FACULTY OF LIFE SCIENCES**

**J C BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY, YMCA,  
FARIDABAD HARYANA -121006**

## **ABOUT THE DEPARTMENT**

The Department of Life Sciences, established in 2020, is one of the newly constructed departments of the J. C. Bose University of Science and Technology, YMCA and is committed to quality teaching and research at under-graduation and post-graduation levels. The department started 2-year Master's in Sciences in four subjects i.e. Botany, Zoology, Biotechnology and Microbiology in 2020 and immersed it with B.Sc. programme in 2021 and obligated to core courses in Biology for undergraduate B. Tech. students. The objective of the department of Life Sciences is to equip students with knowledge, techniques and skills associated with biology so that they would be able to appreciate its significance and be able to contribute to achieving innovative solutions to scientific problems having direct or indirect impact on well-being of the living systems. The faculty members of the department are dedicated to quality teaching and research, which is very important as the teaching will be more effective if done by people actively involved in research. The Department has a dedicated team of faculty members trained at renowned institutes in India and abroad. This growing department with young faculty offers a vibrant atmosphere to nurture the spirit of scientific inquiry.

We constantly encourage bright young minds who would enrich the department of Life Sciences by joining us in the capacity of students and researchers. The department aims to progress aggressively towards achieving the ultimate goal of being among the best departments of Life Sciences in the country, and we always welcome those who'd help us to reach that target.

## **VISION**

To develop into a department that can effectively harness its multispecialty and interdisciplinary strengths to create an academically stimulating atmosphere; evolving into a well-integrated system by developing in students heightened intellectual, cultural, ethical, and humane sensitivities; to foster a scientific temper, and to promote professional and technological expertise.

## **MISSION**

- To create well-rounded individuals ready to comprehend scientific and technical challenges offered in the area of specialization.

- To inculcate the values based on highest academic and professional standards in terms of mutual trust and integrity.
- To encourage critical thinking and develop research acumen by aiding the nascent spirit for scientific exploration.
- To infuse intellectual audacity that makes them take bold initiatives to venture into alternative methods and modes to achieve technological breakthroughs.
- Lead in fostering solutions to problems of global significance by collaborating across many disciplines both within and external to university.

## **STRATEGIC GOALS**

- The Department of Life Sciences strives to accomplish the University's and Department's visions, progressively work to attain the university's and department's missions.
- The strategic goals of the department focussed to benefit the students, systematic the department towards constant progress/ advancement, contributing to relevant community and social causes, leading on a path that leads to national development as well as nation building.
- The strategic planning for the years 2021-22 to 2025-26 was done with several criteria and quality indicators in consideration.

## **SWOC ANALYSIS**

### **STRENGTHS**

- Well defined Vision, Mission and Value System of the Department.
- Young, Motivated, enthusiastic and well qualified team of teaching staff.
- Well-planned, well-defined syllabus of PG courses in Life Sciences with a mix of theoretical, practical papers (courses) relevant to the needs of academia, research and industrial sector.
- Students' holistic personality development is promoted through a variety of activities and programmes offered on a regular basis.
- Active interaction between the faculty members (Mentors) and students (Mentees) to cater the academic, personal, and career guidance needs.

- Establishment of state of art facilities for practical training of students (Research labs, wet and dry labs).
- The Department's Academic Audit is conducted on a regular basis.

### **WEAKNESS**

- Lack of technical staff in the department
- Lack of infrastructure necessary to conduct regular practical work and quality research.
- Lack of Departmental Tie- ups with Institutions of National Repute/ International Organizations.
- Lack of sponsored research projects.

### **OPPORTUNITIES**

- Assuring collaborations with numerous organizations for practical training and skill enhancement for students.
- Assuring collaborations/linkages with prestigious national and international institutions.
- Planning effective social outreach and community engagement programmes involving the faculty members, research scholars, and students.
- To prepare E- contents for MOOC courses on UGC SWAYAM portal.
- Consultancy projects.

### **CHALLENGES**

- Keeping pace with changing global trends in various aspects of Life sciences education and research.
- To attract students from a wider socio- cultural base, including students from other states and international students.
- To provide more opportunities for career placements for the students.
- To get more funding for infrastructure development to establish world class research laboratories and expansion of the department.
- To enhance the communication skills of students.

### **ACTION PLAN**

The Five-Year Plan of the Department consists of multi- pronged activities for growth and development of the department.

### **2021-22**

- ✓ The Department will work for development of well-organized Lab/ Research infrastructure.
- ✓ The Department will work for Academic, Research and Industry interaction so as to facilitate practical skill development of the students and their career placement(s).
- ✓ The department will start UG course in Life Sciences.
- ✓ Organizing various National / International seminars, symposia, conferences and awareness programmes in the department for the benefit of the students.
- ✓ Latest edition of relevant text books along with their e-copies will be procured to enrich the departmental library.

### **2022-23**

- ✓ Display of portraits of Prominent research scientist, Inspiring icons in the Department.
- ✓ Organizing social outreach engagement programmes with local community to create social awareness on contemporary social issues.
- ✓ Organizing Workshop on “The relevance of Life Sciences for Social benefit”.
- ✓ Visit to research institutes of national and international repute for knowledge update and practical industry exposure of students.
- ✓ Consultation programmes will be organized to encourage the students for national and international scholarships/fellowships.
- ✓ The department will continue to create highly qualified master's students who will contribute to the development of the country.
- ✓ Expert lectures series by the eminent resource persons will be organised to aware the students about the recent developments in the different streams.

### **2023-24**

- ✓ The department will start to establish innovative research centre by infrastructure development for the field of life sciences.

- ✓ The Department will work for Academic, Research and Industry interaction so as to facilitate practical skill development of the students and their career placement(s).
- ✓ A workshop on “Intellectual Property Rights” will be conducted to promote the culture of filing patents.
- ✓ The Alumni Forum of the Department will be made more active with greater Department-Alumni Interaction(s).
- ✓ The department will plan to start Ph.D. course in Life Sciences to produce highly skilled doctorate candidates.

#### **2024-25**

- ✓ Organizing Career Guidance & Counselling programmes by inviting Academicians, Research scientist and Professionals.
- ✓ The department will try for MOUs with the reputed research labs, institutes, and Universities.
- ✓ Syllabi will be reviewed and updated as per advancement in the different fields

#### **2025-26**

- ✓ Department will keep working to make a platform to interact with top leaders of different Pharmaceutical and Biotech Industries.
- ✓ Faculty members and students will be motivated to publish their research work in high impact factor journals of national / international repute.
- ✓ Department will keep working on to start certification course.

## **Activity Calendar 2021-22**

### **July 2021**

- Exam question paper setup
- Completion of the syllabus
- Final mentor mentee meeting of the session
- Queries of the students were undertaken

### **August 2021**

- Admission process
- Induction programme for newly admitted students
- Practical and theory exams conducted via online mode

### **September 2021**

- We are celebrating Teachers Day on 5<sup>th</sup> Sept
- Career counselling
- Mentor mentee meeting for student counselling

### **October 2021**

- Value Added Course on Life Sciences
- Industrial visit of students

### **November 2021**

- National seminar organization

### **December 2021**

- Mentor mentee meeting

### **Carrier Counselling**

- Semester Exams for BSc First Sem and MSc First Sem

### **January 2022**

- Field project work
- Arranging workshop

### **February 2022**

- Mentor mentee meeting
- Especial lectures on science communication on the occasion of National Science Day

### **March 2022**

- Women's day celebration.
- Invited Talk on women's day by distinguished faculties
- Carrier Counselling

### **April 2022**

- Mentor mentee meeting
- Research Lab visit

### **May 2022**

- Online portal workshops arrangement
- Semester exam

### **June 2022**

- Semester Break
- Value added course