



# Department of M.Sc Biotechnology

The Department of Biotechnology (PG) has established in 2006. As a pioneer in the state, quickly gaining popularity within the Academy due to the vast opportunities to both students and faculty. The department draws its strength from a highly qualified team of faculty members with doctoral and post-doctoral credentials, and extensive experience in academics, research, and industry. Renowned professors and visiting scientists contribute to a wide range of research areas, including green synthesis of nanoparticles, antimicrobial and anticancer studies, bio-fuels, bioremediation, wastewater treatment, biomedical research, genomics and proteomics, bioinformatics, and agricultural biotechnology. The department boasts six well-equipped laboratories catering to various subject areas, a research center of international standards, and a bioinformatics facility featuring state-of-the-art molecular modeling and drug design software. Advanced equipment such as a 3L fermenter and RT-PCR further strengthen the department's research capabilities. The department also takes pride in its active collaboration with industry partners in filing patents and intellectual property

## VISION :

To impart higher education with integral formation focused on infusing together Biology, Engineering, and Technology for holistic development.

## MISSION :

To integrate innovative practices in skill-based learning through involvement in Biotechnology to Mould Students Into "Future Biotechnologists" & to be socially Responsible Citizens



## PROGRAMS OFFERED

- MSc.Biotechnology highlights:
- Cell Biology, Microbiology
  - Genetics, Animal Biotechnology
  - Bioprocess engineering,
  - Plant Biotechnology,
  - Nano biotechnology, Immunology,
  - Bioinformatics, Molecular biology and Medical Biotechnology

## DEPARTMENT HIGHLIGHTS

6 laboratories with state of art facilities  
1 research lab with high end equipment like HPLC, ELISA, UV-VIS Spectrometer with double beam, PCR, RT-PCR, Inverted Microscope and fermenter.

Students are encouraged to do in house and External research projects in national and International Institutes.

Faculty with post-doctoral and doctoral degrees with academic, research and industry expertise.

## CAREER OPPORTUNITIES:

Our students are placed in various prestigious companies and industry/Institutes such as CCMB, CDFD, Lacones, Hyderabad Central University, A.P Forensic Sciences, Dr. Reddy's Research Laboratory, Shantha Biotechniques, Bharath Biotech, Indian Immunological, Reliance Life Sciences, ICRISAT, IIMR, CRIDA, Prathista Biotech Pvt. Ltd., etc.

## HIGHER EDUCATION PROSPECTS:

Admission into Ph.D in national and international universities/ Institutes

## ADMISSION GUIDELINES:

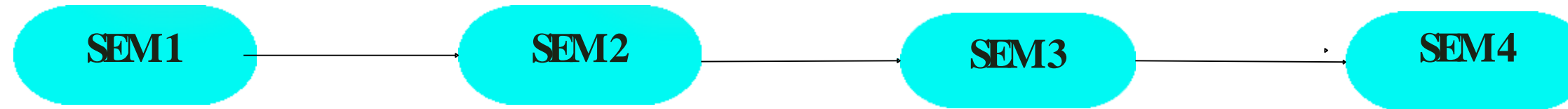
30 seats through TSCPGET and 6 seats by College management

## WHY LOYOLA ACADEMY?

- NAAC Accredited and recognized for academic excellence.
- Strong industry collaborations ensuring top-notch placements.
- Innovation-driven approach with a focus on emerging technologies.



# M.Sc., Biotechnology



- Genetics
- Cell Biology
- Micro Biology
- Environmental Biotechnology
- Bio Chemistry
- Communicative competence

- Computer Applications
- Environmental Awareness Activity
- Immunology
- Molecular Biology-I
- Molecular Biology –II
- R-DNA Technology

- Human Values and Professional Ethics
- Biostatistics and Research Methodology
- Plant and Agricultural Biotechnology
- Animal Biotechnology
- Medical Biotechnology
- Bioinformatics
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- Bioprocess Engineering
- Nano biotechnology
- Food Biotechnology
- Project

## EXTRA CURRICULAR ACTIVITIES

- Sports
- Resonance

## STUDENT SUPPORT

- Academic counseling
- Generic Electives
- Mentoring
- Self study
- Add-on course

## NON-CGPA COURSES

- Planet
- NPTEL
- Bridge Course

## STUDENT CENTRIC METHODS

- ❖ Industrial Visits
- ❖ Minor Projects
- ❖ Internships
- ❖ Research Papers Poster
- ❖ Presentations Group
- ❖ Discussions/Seminars/ Debate