



Progressive Education Society's

Modern College of Arts, Science and Commerce (Autonomous)
Shivajinagar, Pune-05

(Affiliated to Savitribai Phule Pune University, Pune)

Award of Autonomous status by UGC, New Delhi (2019)

DST-FIST Scheme (2019)

Best College Awards (Sports), by SPPU (2016, 2017, 2018, 2019)

CPE Status by UGC, New Delhi (2017)

National Award for Best Accessible Website (2018)

'A+' grade with 3.51 CGPA by NAAC (2017)

DEPARTMENT OF BIOTECHNOLOGY

M.Sc. Biotechnology

GUIDELINES FOR ADMISSION



Department of Biotechnology of Modern College was established in the year 2005 with B.Sc. Biotechnology course and in 2008, M.Sc. Biotechnology course was started. The B.Sc. and M.Sc. Courses have received permanent affiliation status from SPPU. The first year of M.Sc. Biotechnology (Autonomous) was initiated in the academic year 2019-2020.

Salient Features:

1. Experienced and dedicated staff.
2. Separate dedicated Research, Bioinformatics, Plant and Animal tissue Culture laboratories.
3. Laboratories are well equipped with high end instruments like PCR, Fluorescence microscope, ELISA reader, Fermenter.
4. Skill Development courses are conducted in the department in various techniques like Animal Tissue Culture, Animal Development, Astrobiology etc.
5. Guest lectures by scientists and industry personnel.
6. Students are motivated for research.
7. Placement assistance through college placement cell.

For admission details please visit the college website:

www.moderncollegepune.edu.in

Eligibility Criteria for admission to M.Sc.

Biotechnology course:

1. Bachelor of Science in Biotechnology with 55% marks as minimum and 50% marks for reserved category students.
2. B.Sc. (Blended)
3. B.Sc. Nanoscience and Nanotechnology



Biotech Fest



Alumni meet

Course Structure:

M.Sc. Biotechnology is a two years course divided in four semesters.

Semester I:

- Advanced Biological Chemistry (4C)
- Cell and Molecular Biology (4C)
- Genetics and Immunology (4C)
- Environmental Biotechnology (T+P) 4C OR
- Food Biotechnology (T) 4C
- Lab Course 1 – Exercises in Advanced Biological Chemistry and Immunology (2C)
- Lab Course 2 - Exercises in Molecular and Cell Biology (2C)
- Human Rights (1C)
- Cyber Security/ Information Security (1C)

Semester II:

- Genetic Engineering (4C)
- Principles of Bacteriology and Virology (4C)
- Plant Biotechnology (4C)
- Medical Biotechnology (T) (4C) OR
- Agriculture Biotechnology (T) (4C)
- Lab Course 3 - Exercises in Genetic Engineering and Plant Biotechnology (2C)
- Lab Course 4 – Exercises in Bacteriology and Virology (2C)
- Human Rights (1C)
- Cyber Security/ Information Security (1C)

Semester III:

- Animal Biotechnology & Stem Cell Technology (4C)
- Bioprocess Engineering & Fermentation Technology (4C)
- Research Methodology & Scientific Communication (4C)
- Bio-entrepreneur & Start up designing (4C) OR
- Database Management & Clinical Research, IPR (4C)
- Lab Course 5 - Exercises in Animal Biotechnology & Bioprocess Engineering (2C)
- Lab Course - Project (Data collection / Survey / Field visit / Review writing) (2C)
- Cyber Security/ Information Security (1C)
- Skill Development (2C)

Semester IV:

- Genomics and Proteomics (4C)
- Biochemical and Biophysical techniques (4C)
- Industrial Biotechnology (4C)
- Bioinformatics (T+P) (4C) OR
- Nanotechnology (4C)
- Project (4C)
- Cyber Security/ Information Security (1C)
- Skill Development (2C)