CAREER OPPORTUNITY

Students can opt for a Junior Research Fellowship after M.Sc. by appearing for the ICMR, UGC-CSIR JRF/NET and other qualifying exams for Fellowship leading to a bright career in research and development in reputed Indian Universities and Research Institutions. Students may pursue higher studies in reputed International Universities. They also have an opportunity to get placed in the fields related to Forensic Sciences, Environment, Agricultural science, Clinical diagnostics, Molecular Medicine, Nutrition, Pharmaceutical industry and Bioinformatics.

PLACEMENTS :

Few Companies and Research Institutes where M.Sc. students have been placed:

Our Facilities

Our Instrumentation Laboratory has the following instrument

- UV– Spectrophotometer
- Cold Centrifuge
- Electrophoresis Unit
- Gas Chromatography
- AAS
- Flame Emission Spectrophotometer

CONTACTS

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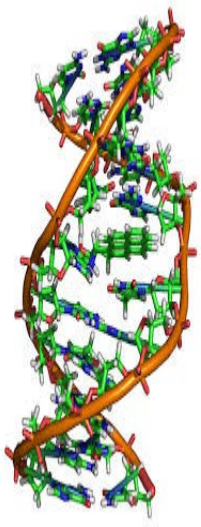

Note: Admissions will be through entrance exam. Online application forms will be available on the college website (**www.fergusson.edu).**

Deccan Education Society's
FERGUSSON COLLEGE, PUNE – 411004.
(Autonomous) Department of Chemistry

The Deccan Education Society which is the parent body of several educational institutions spread over the landscape of Maharashtra founded the Fergusson College, a premier institution of liberal learning in India, in the year 1885. The Chemistry Department of the Fergusson College is one of the largest and oldest departments of the college and Deccan Education Society, Pune.

In the year 2007 non-grant post graduate course in Biochemistry was started in the department

ABOUT M. Sc. BIOCHEMISTRY

Biochemistry is a branch of science which helps one to understand the basic and internal chemistry of living things. Since it is so vast and new phenomenon are discovered every year, it is taught as a separate branch of biology. Biochemists combine the fields of microbiology, cell biology, genetics, neurochemistry, immunology, clinical chemistry, biophysical techniques, toxicology, molecular biology and physiology to understand all the chemical reactions happening at cellular or molecular level in a living cell or living being. Biochemistry in general deals with bio molecules like enzymes, hormones, carbohydrates, amino acids, fats, proteins, DNA, RNA, pigments etc.It describes their origin, formation, function, metabolism, deficiency symptoms etc. Biochemists are contributing to advances in a wide variety of areas, including health, agriculture and the environment.

ELIGIBILITY

A candidate seeking admission to M.Sc Biochemistry must have Chemistry as a Principal subject in T.Y. B.Sc. Additionally, B.Sc Biochemistry, Botany, Microbiology, Zoology, Life Science and Biotechnology students can also apply for the same. Admission will be solely on the basis of Entrance Examination Merit List .

CURRICULUM

The M.Sc. Biochemistry Programme under the Choice Based Credit System (CS) is a full time course of two years consisting of 4 semesters which includes theory, lectures and practical. An important aspect of the Biochemistry course is its fourth-semester project work which can be done by each student under the supervision of a teacher in the parent department/ any appropriate research institute, which allows students to explore both laboratory-based research and specific recent advances in biochemistry in detail. The project also gives them the opportunity to reflect on their aptitude and enthusiasm for a research career.

Semester I (25 credits)

Theory: Biomolecules, Enzymology , Cell Biology and Membrane Biochemistry and Biophysical Techniques

Practicals: Analytical Biochemistry I + II and Enzymology and Biophysical Techniques

Semester II (25 credits)

Theory: Bioenergetics Pathways, Microbiology and Fermentation Techniques Biostatistics Bioinformatics and Computational techniques in Biochemistry, Genetics

Practicals: Microbiology Techniques Bioinformatics and Biostatistics & Comp. Skills

Semester III (25 credits)

Theory: Molecular Biology, Immunology, Physiological Biochemistry, Cell Culture and Plant Biochemistry

Practicals: Molecular Biology & Special experiments and Clinical Biochemistry

Semester IV (25 credits)

Theory: Endocrinology and Neurochemistry, Toxilcology and Advanced Biophysical Techniques Genetic Engineering, Optional Course (any 2) 1. Clinical Nutrition & Food technology 2. Neutraceutical and Pharmacology 3. Molecular Oncology 4. Stem Cells and Regenerative Medicines

PROJECT WORK

Additional Compulsary Courses (10 credits)

Introduction to Cyber Security/Information Security , Human Rights , Skill Development.