

DEPARTMENT OF BIOTECHNOLOGY

FACULTY OF BIOMEDICAL SCIENCES &
TECHNOLOGY

Creating humane leaders in science

MSc Biotechnology (CBCS) Program Brochure



About the Institute

Sri Ramachandra Institute of Higher Education and Research was established by Sri Ramachandra Educational and Health Trust in the year 1985 as a private not-for-profit self-financing institution and dedicated to serve the society as a center of excellence with emphasis on medical education, research and health care. In view of its academic excellence, the Government of India declared the Institute as Deemed to be University in September, 1994 under Section 3 of the University Grants Commission Act, 1956. The Trust achieved the task of establishing this Institution as a "Center of Excellence" under the leadership of Late Thiru. N.P.V. Ramasamy Udayar who was the Founder Chancellor of the Institute. Over three decades, the institute has transformed into a full fledged Institute with eleven constituent faculties and around 117 programs in the health care sciences. Nearly 6500 students receive teaching and training in the campus. Over 5000 patients seek health care in the State-of-the-art academic medical center. The institute has also been accredited by various national and international agencies. National Assessment and Accreditation Council has accredited the Institute with A Grade and Graded by UGC as Category I University. The Institute also has various national and international collaborations signing of MoUs for enhancing research.



We have the state-of-the-art facilities right here in the campus to enable the students to pursue their education and cutting edge research at ease. Our campus also includes a Medical Centre, fitness gym, ATMs, Bank, Post Office, Railway Booking Centre, Temple and Canteens. All these facilities are housed in a lustrous environment ever keeping it green. Students may avail hostel facilities housed in the campus enjoying all the in-campus facilities. Apart from their curricular activities, they enjoy a varied extra curricular activities like Sports, Culturals, Competitions, NSS, NCC, etc.

Facilities in the department

INSTRUMENTS AND EQUIPMENTS

Our institute has the State-of-the-art equipments like qPCR, FTIR, IR, HPLC, HPTLC, FACS, Sequencer, Confocal Microscopy, GC, NMR etc that could be utilized by the students for their research work.

We have all the lab facilities such as Microbiology facility, Animal Cell Culture facility, Plant Tissue Culture facility and Experimental Toxicology Facility. We also have various instruments like PCR, Gel documentation system, ELISA plate reader, Hybridizer, Sonicator (bath and probe), Electrophoresis apparatus, laminar airflow, fumehood, autoclaves, ice flaker, refrigerated centrifuges, micro-centrifuges, microwave oven, CO2 Incubator, Liquid Nitrogen, etc.



Premises of Faculty of Biomedical Sciences and Technology

Achievements

- 4 Patents Published
- Research Publications in International and National peer reviewed indexed journals
- Various projects funded by DBT, DST, DRDO, MoES, ICMR
- Organized conference/CME by eminent scientists
- Strong Faculty Alumni networking
- Student internships, Project training
- Publication writing workshops

ABOUT THE DEPARTMENT

The Department of Biotechnology was started at Sri Ramachandra Medical College & Research Institute during October 1999. The first batch of students for the MSc Biotechnology degree program was admitted in December 2001 and the department was later included under the Faculty of Biomedical Sciences, Technology and Research. Under the excellent ambience of healthcare sector, the department is dedicated to developing a strong multidisciplinary teaching program in biotechnology. Its commitment to research in different disciplines of Life Sciences underscores the importance of biotechnology in areas such as Molecular Biology, Plant Tissue Culture, Animal Cell Culture Environmental Biotechnology, Microbiology, Immunology, Cancer Biology and Biochemistry. The Department draws funding from Indian and foreign Governments like, Department of Science & Technology, DIHAR, MoES, Department of Biotechnology, Indian Council of Medical Research, Indo-French, Tamil Nadu State Council for Science & Technology and internal funding from the University [GATE, Chancellor's Summer Research Fellowship for Undergraduate students and Founder Chancellor, Thiru. N.P.V.Ramasamy Udayar research fellowships for PhD]. The department offers MSc Biotechnology and PhD programs.

The M.Sc Biotechnology program follows Choice Based Credit System (CBCS) where students are given the option to select elective subjects of interest in every semester. Since Biotechnology is an integrated field, faculties from various expertise teach cell biology, molecular biology, cancer biology, immunotechnology plant, animal, microbiology, environment science and many other related disciplines.



AN IDEAL PLACE FOR PERSONAL AND PROFESSIONAL GROWTH

PROGRAMS OFFERED

> Program: MSc Biotechnology

CURRICULUM DESIGN

Apart from core theory and electives offered by the department, students can choose courses offered by other departments in the University and Hospital.

- 2 years; 4 semesters
- 12 Core Theory papers
- 5 Core Lab papers
- 1 Skill Lab paper
- 5 Elective papers
- 1 Dissertation

COURSES COVERED

- Molecular Biology
- Genetic Engineering
- Animal Cell Culture
- Cancer Biology
- Immunotechnology
- Pharmaceutical Biotechnology
- Bioprocess Technology
- Protein Biology
- Bioinformatics

PROGRAM HIGHLIGHTS

- Choice Based Semester System (CBCS)
- Total credits - 97
- Online group (biotechru) activity for
 - Student-Alumni interactions
 - Placement opportunities
 - Higher studies opportunities
- Interdepartmental activities
- Housed in ecofriendly campus
- Clinical Research Projects
 - Wide range of research projects including healthcare

ELIGIBILITY

Any Life Science degree, Medicine, Dental, Veterinary, Allied Health Sciences, Biomedical Sciences from any recognized University with 55% passing minimum/B+ grade in the undergraduate qualifying examination.

> Program: PhD

Interested candidates can pursue their PhD in our department in various areas of Life Sciences. To know more about the program, kindly go through the regulations at the link.

https://www.sriramachandra.edu.in/university/pdf/research/phd_programme.pdf

ELIGIBILITY

Any PG degree in life Sciences, Medicine, Dental, Veterinary, Allied Health Sciences, Biomedical Sciences from any recognized University.

ALUMNI AND PLACEMENT



Many of our alumni have been **Placed** or pursuing their **PhD** at the very prestigious institutions throughout the world.

Alumni in academia and companies

- Bios Partners at Dallas/Ft. Worth, USA
- Washington University at St.Louis, USA
- Harvard Medical School, Boston, USA
- University of British Columbia, Canada.
- George Washington University, USA
- Heidelberg University, Germany
- Biocon Biologics India Limited
- SERUM INSTITUTE OF INDIA PVT. LTD

What the Alumni Say

The program structure provided me invaluable knowledge in terms of theoretical and practical training which helped me face competitive exams abroad.

Dr. Krishna C. Vallabhaneni. Ph.D., sMBA, (2005 batch), Field Application Scientist, Maxcyte Inc. USA.

Trained with wide spectrum of electives for industry oriented skills and fantabulous research experience.

Ms. Nandini Prakash, Research Assistant (2015 batch)
Sankara Nethralaya Medical Research Foundation, Chennai.

CONTACT US

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