

ABOUT SRI RAMACHANDRA INSTITUTE OF HIGHER EDUCATION AND RESEARCH (SRIHER)

Sri Ramachandra Institute of Higher Education and Research is dedicated to excellence in education; healthcare and research since its inception in 1985 by its founder Shri.N.P.V Ramasamy Udayar. An internationally acclaimed medical school is supported by seven multidisciplinary constituent faculties- Dental, Nursing, Pharmacy, Physiotherapy, Allied Health Sciences, Management & Biomedical Sciences.

WHY SRI RAMACHANDRA INSTITUTE OF HIGHER EDUCATION AND RESEARCH (SRIHER)

Sri Ramachandra Medical College & Research Institute apart from providing world class education helps in building a well rounded personality and provides ample opportunities for students to develop into responsible leaders and dynamic professionals in their careers.

WHO CAN BENEFIT FROM THIS DEGREE

We are looking for students who have a strong desire to understand fundamentals of Basic Medical Sciences and aspire to be leaders in Biomedical research and development.

ELIGIBILITY FOR ADMISSION

A candidate who seeks admission to M.Sc. Biomedical Sciences Degree program should have passed B.Sc., [Allied Health Sciences/ Biology/ Biochemistry/ Biomedical Sciences/ Biotechnology/ Clinical Nutrition/ Botany/Genetics/ Microbiology/ Life Sciences/ Zoology] B.Tech., (Biotechnology, Genetic Engineering)/ degree of any university recognized by the UGC.

For More Details

The Registrar

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SRI RAMACHANDRA

INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(DEEMED TO BE UNIVERSITY)

Accredited by NAAC with 'A' Grade (CGPA 3.62)

(Recognized as category-I University by the UGC)

Porur, Chennai - 600 116

SRI RAMACHANDRA FACULTY OF BIOMEDICAL SCIENCES AND TECHNOLOGY



M.Sc., BIOMEDICAL SCIENCES



Atomic Energy Regulatory Board
(AERB) accredited Biosimetry lab



American Association of Blood Banks (AABB)
accredited only Hospital based Blood Bank



ISO 9001:2000
certified Departments



Accredited by NAAC (cycle-2) at 'A' Grade Level
with CGPA of 3.62 on a 4-point scale



WHO Collaborating Centre
for Research and Training
in Occupational Health



NATIONAL
INSTITUTIONAL
RANKING
FRAMEWORK



A decade long 'Smile Train'
program of USIA offers care for
Cleft Lip & Palate children in India



NABL accredited Sri Ramachandra
Laboratory Services

M.Sc. Biomedical Sciences

PROGRAM HIGHLIGHTS

The course has been designed

- ❖ To improve the skills and critical thinking in the field of clinical research
- ❖ To understand the mechanism of pathogenesis and to develop the new markers and diagnostic protocols with respect to the relevant field.

UNDER HIGHER EDUCATION

- ✦ Cancer Biology
- ✦ Molecular Biology
- ✦ Microbiology
- ✦ Biotechnology
- ✦ Nanotechnology
- ✦ Stem Cells and Regenerative Medicine
- ✦ Clinical Embryology
- ✦ Clinical Research
- ✦ Translational Research
- ✦ Neuroscience
- ✦ Public Health

JOB OPPORTUNITIES

- Diagnostics
- R&D sectors
- Research Fellow
- Biomedical Industry Placements
- Consultancy
- Health protection agencies
- Pharmacovigilance sectors
- Forensic Science Departments
- Academic Institutions

ABOUT THE DEPARTMENT

The Department of Biomedical Sciences was instituted in 2007 and functions under the constituent Faculty of Biomedical Sciences, Technology & Research. The Department has an aesthetically designed phenomenal infrastructure with an array of research equipments like inverted microscope, upright fluorescent microscope, zoom microscope, UV Vis Spectrophotometer, HPLC, PCR, Nanodrop, Western Blot, SDS Page Electrophoresis and Spectrophotometer.

ABOUT THE PROGRAMME

The Masters programme in Biomedical Sciences provides a unique combination of fundamental research and clinical application, with a special focus on multidisciplinary aspect such as biochemical, molecular and patho-physiological mechanism of diseases. Biomedical research is a fundamental cornerstone for the discovery of new biological knowledge that allows the development of new treatments to combat genetic conditions, infectious diseases and common social-driven diseases such as diabetes within communities.

Hence, investigating and understanding the diseases give the skill and knowledge to work towards discovery and development of preventive/therapeutic drugs. There is an increasing prevalence of non-communicable diseases as a result of lifestyle changes and urbanization in India. Infectious diseases are also still persisting as major health problems in Indian population. The requirement for Biomedical Scientist is important because they are expected to bridge the gap between biomedical research, diagnostics and clinical applications.

First Year-First Semester

Course code	Course title	Credits
BMS23CT601	Biomolecules	4
BMS23CT602	Molecular Cell Biology and Signaling	4
BMS23CT603	Human Physiology	4
BMS23DE601	Clinical Diagnosis and Laboratory Technology	3
BMS23AE601	Clinical Embryology	2
BMS23CL601	Biomolecules Lab	3
BMS23CL602	Molecular Cell Biology and Human Physiology Lab	2
BMS23CL603	Human Physiology Lab	2
BMS23DL601	Clinical Diagnosis and Laboratory Technology Lab	2

First Year-Second Semester

Course code	Course title	Credits
BMS23CT604	Molecular Biology	4
BMS23CT605	Microbiology and Immunology	4
BMS23CT606	Enzymology	4
BMS23AE602	Stem Cell Biology & Regenerative Medicine	2
BMS23SE601	To be chosen by student	2
BMS23CL604	Molecular Biology Lab	2
BMS23CL605	Microbiology and Immunology Lab	3
BMS23CL606	Enzymology Lab	3

Second Year-Third Semester

Course code	Course title	Credits
BMS23CT701	Bioanalytical Instrumentation & Techniques	4
BMS23CT702	Oncobiology	4
BMS23CT703	Bioprocessing and Pharmaceutical Biotechnology	4
BMS23DE701	Biostatistics, Epidemiology and Research Methodology	3
BMS23GE701	To be chosen by student	3
BMS23AE701	Computational and Structural Biology	2
BMS23CL701	Bioanalytical Instrumentation & Techniques Lab	2
BMS23CL702	Oncobiology Lab	2
BMS23CL703	Bioprocessing and Pharmaceutical Biotechnology Lab	2
BMS23DL701	Biostatistics, Epidemiology and Research Methodology Lab	2

Second Year-Fourth Semester

Course code	Course title	Credits
BMS23RP701	Dissertation & Viva-Voce	18

RESEARCH EXPERTISE AND GUIDANCE

- Phytotherapy research
- Obesity and Chronic inflammation
- Diabetes and ocular biology
- Stem cell research
- Applied Microbiology
- Drosophila Biology
- Diabetic Wound Healing in Zebra fish model
- Nanotechnology in Biomedical applications
- Cancer and Immunology
- Metal Toxicity
- Glycoconjugates and Cancer

DEPARTMENTAL FACILITIES

- Instrumentation Facility
- Phytomedicine Lab
- Animal Cell Culture Lab
- Drosophila Lab
- Microbiology Lab
- Genomics Lab
- Proteomics Lab
- Stem Cells Lab
- Zebrafish Lab
- Cancer Biology Lab

