

MAHATMA GANDHI UNIVERSITY MEDICAL SCIENCES & TECHNOLOGY

VISION 2035 STRATEGIC PLAN DOCUMENT



STRATEGIC PLAN OF THE UNIVERSITY

We, Mahatma Gandhi University of Medical Sciences & Technology (MGUMST) are committed to create the future of health care through innovation, education and research.

As the health care landscape continues to shift and change, our future success requires an organizational commitment to innovation, collaboration, and fiscal stewardship. Together we will bring to life new ideas, systems, and technologies that enable us to improve the health of communities near and far.

People, Discovery, Education, Care, and Service are the five pillars through which we will pursue in a vibrant and inclusive learning community, equipped with the resources and infrastructure necessary to enable their successful implementation and sustainability.

Through this plan, we will align our strengths to transform health through bold and innovative education, discovery, and service.

Five pillars to achieve excellence shall be -

- People
- Discovery
- Education
- Health Care
- Community Service

People: Recruit, develop, and retain the best faculty, staff, and learners who work together for the greater good.

- We will build a supportive and inclusive culture where all people feel valued and thrive for excellence. We will achieve this through our organizational processes, such as performance management, rewards and recognition, learning and development, and promoting more engagement.
- We will develop outreach recruitment and hiring action plans to attract excellent and diverse talent to our organization.
- We will invest in our people by providing professional development opportunities and support to help each person reach his/her greatest potential.

We will Standardize our approach to the performance appraisal system (PAS). Where we will ensure that all faculty and staff members are able to contribute to their highest potential in the growth and development of the University.

• We will develop a strategic, consistent, flexible, and proactive approach to the retention of our team members.

Discovery:

Research plays a critical role in the success of the university institutions, fostering academic growth and discovery among our faculty and students to create a foundation for new knowledge. We are committed to create transformative knowledge that advances science and improves health.

The Discovery pillar is focused largely on our people assets, who remain our greatest resource. As such, we aim to increase our faculty's competitiveness and their ability to pursue major scientific questions in a rich and diverse environment that leads to discoveries that inspire new preventions, treatments, and cures.

- The University will be the destination for world-class research faculty, staff, and learners with active development across all stages of their careers. We will Recruit world-class faculty, staff, and learners to ensure a vibrant, productive learning community.
- Our integrated research ecosystem will foster collaborations across disciplines, the University, and external partners, stakeholders, and communities. We will provide large-scale grant support.
- Our pioneering research cell will enable innovative and transformative biomedical discoveries. We will identify and promote the research areas where university has unique strength where we are poised to lead nationally and globally.
- The clinical research enterprise will be best in class, executing investigations of the highest quality and impact that improve clinical care, value, access, and outcomes. More opportunities will be provided to the faculty and staff members to carry out clinical trials with the vision of the Clinical Trials Enterprise Transformation of the University.

- Our vibrant research environment will facilitate scientific excellence through cutting-edge infrastructure and expert services.
- Encourage and expand the interdisciplinary collaborations between the various departments of the university

Education:

The university will enhance the quality and methods of teaching, learning and scholarship. We will focus education and training to develop clinicians and health care personnel who excel at meeting the needs of the era, are culturally competent and are leaders who can drive health system transformation.

Create a safe, effective, and learner-focused environment to support the growth and development of our learners and cultivate a learning community of faculty, staff, trainees, and students that engages in bold and innovative education for the advancement of medical and allied science, health and health care delivery.

- We will focus that all learners are committed to selfimprovement, co-developed as teachers, coaches and colleagues for the teams with which they work and be leaders who are driven to excellence in maximizing the benefit to the people and communities they serve.
- Evidence-based education programs will be initiated in the University that are innovative and transformational.
- The learning community will be linked together and enabled by a robust infrastructure and learning platform that facilitates the creation and implementation of new knowledge.

Health Care: Deliver outstanding patient care and improve health for local, state, national, and global populations while caring for each other.

Three tier health care delivery system will be strengthened up to the level of absolute perfection:

- Primary Health Care
- Secondary Health Care
- Tertiary Health Care

MGUMST is committed to respond to the timely health care needs of the nation. The University extends its full support to make the National health programs successful and is always willing to support the Government in any national medical emergency.

Community Service: Engage and collaborate with other institutional, local, state, national and global communities for advancement in health care system.

We are committed to improve the health of people with the mission of "health for all". We are committed to be the leader in health care.

The university is mandated to serve, incorporating authentic community engagement and mutually beneficial partnerships, to focus on equity and community engagement by interweaving social accountability throughout the university's operations.

Faculty and learners will clearly communicate new discoveries, practices and technologies to the public and to policy makers, increasing their knowledge and engagement in the science of medicine and allied disciplines.

We will promote a culture that encourages employees to devote time to service by: allocating a certain number of hours per year in service activities.

University will Strategically Emphasize on the following

- To become a centre with potential for excellence.
- To organize more CMEs, Workshops and Conferences at State, National and International level in all constituent colleges of the University.
- To promote interdisciplinary research, clinical trials and consultancy projects, to take more research projects either individually or team-based research projects by faculties of the departments of all colleges. To tie up with international universities & faculty for research & training.
- To continuously upgrade NABH accreditation of hospital and blood bank and NABL accreditation of the lab.
- To enhance faculty development programs (FDPs), publications and PhD program in every department. To strengthen the museum of all departments of the constituent colleges.
- To train the faculty of competency based evaluation of UG & PG Students including module development.
- Collaboration with other institutions/ NGOs and pharmaceutical companies.
- To strengthen Simulation Lab, Skill Lab, E-class rooms and Lecture Theatres in all constituent colleges of the University.
- To develop online academic program systems which is need of the hour in today's world.

MAHATMA GANDHI MEDICAL COLLEGE AND HOSPITAL Short Term Plan (In next 5 years)

Anatomy

- By spreading awareness for body donation, to increase the number of cadavers in the Anatomy department to promote dissection ability in the UG students and surgical skills in the PG students.
- > To continuously enhances and upgrade the genetics lab.
- To establish virtual anatomy lab having virtual dissection table, "Anatomage".
- Use of ICT enabled tools by faculty for providing 3 dimensional view of human body structures.

Physiology

- > To strengthen E classroom and laboratories Immunology, clinical Physiology & Sports Physiology.
- > To upgrade skill lab in department and increased use of manikins/simulators for teaching basic clinical skills.

Biochemistry

- > To continuously upgrade NABL accreditation for its laboratories, with an eventual goal to meet the accreditation standards of CAP (College of American Pathologists), USA and to be accredited by same.
- > To promote Prenatal diagnosis of inborn errors of metabolism, eg, haemoglobinopathies.

Pharmacology

- > To establish Hospital Formulary and Therapeutic Drug Monitoring Centre.
- > To use in-vitro techniques and virtual laboratory techniques including computer assisted models for pharmacokinetics and pharmacodynamics.

- > To undertake collaborative and ethical sponsored projects with pharmaceutical industries.
- > To organize pharmaco vigilance workshops.

Pathology

- > To upgrade molecular diagnosis laboratory with most recent and advanced facilities of Southern Blot, FISH, Microarrays, Flow Cytometric analysis of various Hematologic Malignancies.
- > To obtain international accreditation from CAP.
- > To strengthen the immune-histochemical marker panels for diagnosis and prognosis.

Microbiology

- > To strengthen and upgrade the Microbiology lab.
- > More effective use of confocal microscope and flow cytometry in future microbiology research projects.

Forensic Medicine and Toxicology

- > To strengthen the museum
- > To organize workshops and conferences.

Community Medicine

- > To establish Non Communicable Diseases Registry.
- > Workshops on research methodology and epidemiology.

Hospital Administration

- To create health care leaders who can build and lead hospitals to impart world class health care globally with cutting edge technology, affordable to all.
- > To develop and promote Quality based healthcare model.
- To expose students to Artificial Intelligence, Accelerated Intelligence and Machine Learning environment.
- > To establish Innovation Lab and Mindfulness Centre.

General Medicine

To further enhance and propagate research projects by national funding agencies like ICMR, CSIR & DST.

Paediatrics

> To develop the Bone Marrow Transplant programme in a way to make it more popular and the reach of a common man or hematology disorders.

Respiratory Medicine

- > Research on TB in collaboration with Johns Hopkins University (as per MOU).
- > To promote more research on MDR-TB and XDR-TB.
- > To promote research on industrial pollution indulge lung diseases and to develop Novel COPD marker in collaboration with Institute of Biotechnology.
- > To establish Endo-bronchial LASER and Endo-bronchial USG.
- > To introduce super-specialty DM-Respiratory Medicine course.

Dermatology and Venerology

- > To start culture of melanocytes and keratinocytes to treat vitiligo cases.
- > To become the nodal Integrated Counseling and Testing Centre for HIV/ AIDS.
- > To start hair restoration surgeries.
- Preventive dermatology to further evaluate upcoming genodermatoses; to offer gene based diagnostics and preventive methods for common genodermatoses like neurofibromatosis and tuberous sclerosis.

Psychiatry

- > To establish a standalone, state-of-the-art Rehabilitation Facility for Psychiatric Disorders.
- > Procurement of ultra-sophisticated instruments like rTMS, fMRI and nuclear imaging facilities which will improve patient care and

will give impetus for research in the field of neuropsychiatry.

- > To emphasize the need for the introduction of a separate evaluation pattern for Psychiatry for UG students.
- Mental health awareness in general public through camps via outreach programs and having direct contact with the people.
- > To organize school health camps for counseling young children.
- > To initiate de-addiction program.

General Surgery

- > To establish Medical/Surgical Simulation Laboratory, especially laparoscopic endo-trainer lab.
- > To establish and develop robotic surgery.
- > To start short & effective training programs in Minimal Invasive Surgery (MIS).
- > To start cadaver laboratory.

Orthopaedics

- > To develop one of its kind, state-of-the-art sports injury treatment centre.
- > Paediatric and Geriatric Orthopaedic Clinic.
- > Collaborative research with Bio-medical implants.

Ophthalmology:

- > To develop the center of eminence in the filed of vitreo-retinal diseases and posterior chamber surgeries.
- > To promote "Diabetic Retinopathy clinic" more intensely as India is now the Diabetic Capital of the World.

Otorhinolaryngology

- To develop the most modern state of the art temporal bone dissection lab.
- > To develop voice lab and stroboscopic facilities

Anaesthesiology:

- > To strengthen and make Labour Analgesia more popular.
- > To start USG guided Nerve Block.
- Intensive implementation of Cardiopulmonary resuscitation training to the general public.
- > Strengthen the intensive care in the hospital.

Radiology and Imaging

- Dedicated anomaly scan with 4D images for Parental & Genetic counseling.
- Stroke imaging To utilize Stroke Protocol for early diagnosis & treatment of Stroke.
- To establish trauma protocol in Polytrauma cases to reduce morbidity & mortality.
- To develop advanced interventional procedures and Therapeutics in - GIT, Musculoskeletal system, Neurology,.
- To introduce Elastrography USG machine for Breast, Thyroid & Liver, USG Contrast Study for Tumors, VU reflux, USG Contrast Agent for Imaging of Neoplastic lesions.
- High End linear probe (Frequency 16 MHz to 30 MHz) for imaging orbits, Peripheral Nerve & Tendons.

Obstetrics and Gynaecology

- To start pre conception genetic sequencing for identifying genetic disorders.
- > To enhance and promote stem cell research.
- > To start Gynaecological Oncology Unit.

Emergency Medicine

To develop the most modern, JCI-compliant and stand-alone Trauma and Emergency Centre.

Neurosurgery

- To establish cadaver Neurosurgery Lab for Training of General Neurosurgery Residents.
- To procure CUSA (Cavitron Ultrasonic Surgical Aspirator) and Neuro Navigation System.

Urology & Nephrology

- > To strengthen cadaveric transplant programs.
- > To acquire robotic equipment for urological procedures.
- > To develop as a premier institute for Glomerular diseases.

Department of IHBT

- > To propagate blood donation awareness programs more effective.
- To screen blood and its components for possible variants and infections.
- To promote research in gene therapy and research in formulation of e-blood (synthetic blood).

Mid Term Plan (6-10 years)

- To further strengthen ongoing research initiatives in the medical college and develop the college at par with the institutes like apex post graduate institutes of the country
- To spread awareness regarding organ donation in the community and develop a society where people are willing to readily donate and every life can be saved
- To initiate distance education programs to develop pool of highly skilled healthcare professional.
- To develop research centre to study role of genetics, gene mapping in prevention of non communicable diseases like cancer, diabetes mellitus and stroke.

• To develop hospital as a premier institute in rehabilitation and palliative care so as to relieve the misery of patients dying of end stage diseases and have peaceful painless death. Since centuries it is awaited and the whole world looks at the medical fraternity to give them hope and solution.

Long Term Plan (10-15 years)

- To develop as Institute of universal excellence in the field of health care and medical education.
- Collaboration with Internationally acclaimed medical institutes for academic excellence, research, hands on training of the faculty members and the students.
- To develop specialty and super specialty centres in outreach areas to provide tertiary health care to the underprivileged people. To achieve sustainable development goals (SDG) with collaborative efforts of Mahatma Gandhi Medical College with the Government of Rajasthan and Government of India as Public Private Partnership (PPP).

MAHATMA GANDHI DENTAL COLLEGE AND HOSPITAL

Short Term Goals (0-5 years)

- To adapt a new practical / clinical based knowledge system for the students in addition to the existing prescribed Dental council curriculum
- To establish a standard protocol and further the concept of prosthetically driven implant planning and delivery.
- To establish MoUs with various universities, industry, colleges, research establishments
- To undertake collaborative researches under the ambit of MGUMST
- To strengthen the existing "buddy system" of mentorship (PG students as peers) for undergraduates whereby they will be allotted a post graduate student as mentor to approach with doubts related to patient work and theory.
- To associate with more international faculties and align with them as adjunct faculties of our institution
- To introduce newer teaching and training options for under graduates to enable them to establish their clinics and enhance entrepreneurship skills
- To introduce special coaching classes for interns to prepare them for the post graduate entrance examinations
- Hands-on courses on Basic Life Support and advanced trauma life support for undergraduate and postgraduate students.
- Enhance the knowledge of students on Forensic Odontology
- Promote the services to the community with emphasis on early diagnosis of oral cancer.
- Strengthening the satellite centers for dental treatment
- Strengthening of ICT enabled teaching learning methods
- Set up Pediatric Dentistry Sedation clinic

Medium Term Goals (5-10 years)

- To adopt "Digital Dentistry" such as chair side CAD-CAM facility, intra-oral scanners.
- To develop an indigenous source of maxillofacial materials from abroad at affordable cost.
- To create a maxillofacial clinic dedicated for providing support to Shri Ram Cancer Center Hospital and have regular postings for post-graduates as an integrated part off their curriculum.
- To establish stem cell research as a part of the PG program.
- Introduction of new certificate courses and fellowships
- To introduce Magnification procedures in treatment.
- To setup Lingual Orthodontic Laboratory.
- Grooming students to become community leaders
- Continuing and strengthening the outreach activity namely adoption of institutes for treatment of physically and mentally challenged children.
- Digital Radiography as value addition in the curriculum, and decreasing radiation exposure.
- Enhance the concept of mobile dental clinic infrastructure so as to cover all rural and urban areas of Jaipur with door-todoor services in emergency.

Long Term Goals (more than 10 years)

- To start a dedicated Specialty Clinic to cater to the demands of dental tourism.
- Adoption of old age homes, ashrams for providing geriatric oral health care.
- To start a state-of-art Periodontal Microsurgery unit.

- To start a modular Operation Theatre and attached recovery for in-house surgeries
- To introduce Robotic Mannequins for preclinical training
- To procure and use 3D cephalometric analysis software.
- To establish state-of-art Microbiology lab, with PCR, Genomic sequencing facilities.
- Establish a centre for Children treatment on the concept of Dental Home with single roof treatment protocol

MAHATMA GANDHI NURSING COLLEGE

Short term plan (0 – 5 years)

- Mahatma Gandhi Nursing College will be the first nursing college in India to initiate following programs:
 - Post basic diploma in Neonatal Nursing
 - Nursing Informatics
 - Forensic Nursing
 - Post basic diploma in Public Health Nursing
 - Master of Clinical Health Research
- To evaluate nursing students by newer methods of assessment like Objective Structured Clinical Examination (OSCE), case studies
- To initiate recently launched program nurse practitioner in midwifery (NPM)
- To introduce online nursing education program for the students.
- To strengthen simulation based education in skill labs for hands on training of nursing students.

<u>Mid Term Plan (5-10 years)</u>

- Mahatma Gandhi Nursing College will be the first nursing college to introduce following programs for the students :
 - Post Graduate Residency program in nursing
 - M.Sc. Nursing in advance practice
 - Community Health practitioner
 - Emergency practitioner
 - Nurse practitioner in academics
- The College will be introducing distance education programs in nursing.

Long Term Plan (10-15 years)

- The following programs will be introduced for the students :
 - Advance Post Masters DNP Education (Doctor of Nursing Practice)
 - Graduate Certificate in Sexual and Reproductive Health
 - M.Sc. Nursing in General Practice
 - PG Certificate in Clinical Nursing Education

MAHATMA GANDHI PHYSIOTHERAPY COLLEGE

Short Term Plan (In next 5 years)

- > To develop GAIT LAB WITH MOTION ANALYSIS.
- To introduce short term course on Aerobic/Fitness Trainer & Manual Therapy Technique.
- > Organized National Level Conference on recent advance in Physiotherapy.
- Exploring possibilities to get funding from external funding agencies (ICMR, DST etc.) for interdisciplinary researches.
- To strengthen community physiotherapy services and collaboration with various institutes.
- > To start D.Sc course in Physiotherapy.
- Total Quality Management in Physiotherapy Education, Service & Research.
- To be a top ranking centre to Excellence in Joint replacement Physiotherapy & rehabilitation.

Mid Term Plan (5-10 years)

- To meet Regional, National & Global physiotherapy skilled manpower and service needs.
- To be a top ranking centre of Excellence in Brain & Spinal cord injury physiotherapy & rehabilitation.
- To be a top ranking centre of Excellence in Organ transplant Physiotherapy & rehabilitation.

Long Term Plan (10-15 years)

To be recognized internationally in the area of physiotherapy education, research & patient care.

Mahatma Gandhi Occupational Therapy College, Jaipur Short term plan (In next 5 years)

- To promote research activities by making mandatory to publish two (2) papers for the faculties every year & one paper for Post Graduate students before their thesis submission.
- Since the Mahatma Gandhi Occupational Therapy College is accredited with All India Occupational Therapists Association and World Federation of Occupational Therapy, the institute will avail the opportunity further enhance the students exchange program with various International Universities of 64 countries.
- Since 2016 RCM Healthcare Services, USA has Collaboration with Mahatma Gandhi Occupational Therapy College. Institute will further enhance placement of their students in the RCM Healthcare Services, USA.
- To initiate new fellowship programs in various Branches of Occupational Therapy.
- To strengthen Standardized Scales in the research unit in every department of the institute.
- > To start incubation center for modifications in mobility aids.
- Mahatma Gandhi Occupational Therapy College would be first in India to initiate short term home care programs for parents enabling them to take optimum care of their special need children.
- To strengthen academic collaboration with foreign universities related to the field of occupational therapy.

Mid Term Plan (5-10 Years)

- To strengthen various units in the Institute such as ADL Training Unit (Adults & Children), Development Disabilities Assessment Unit (Adult & Neuro), High-Tech Hand Splint Unit.
- MG Institute will be first occupational therapy institute to establish hydrotherapy unit.
- The institute will be among few to develop virtual reality therapy unit.

- > To initiate the following programs :
 - 1. Post professional Occupational Therapy Course.
 - 2. Post professional Doctorate Course in Occupational Therapy.

Long Term Plan (10-15 Years)

- To Develop Robotic Rehabilitation in Occupational Therapy Department.
- To start designing & manufacturing mobility aids, occupational therapy equipments, Low cost Artificial Limbs.
- > To establish Prosthetics & Orthotics Unit in the Institute.

MAHATMA GANDHI COLLEGE OF HOSPITAL ADMINISTRATION (MGCOHA)

<u>Short term plan (In next 5 Year)</u>

- To be a leader in creating early and mid-career leaders in health care administration of a challenging and changing healthcare arena.
- To educate a new generation of leaders for the 21st century, prepare the next generation of health care leaders to shape change and be innovators in a rapidly evolving health care delivery system.
- Aspire to be recognized by healthcare and health related employees – Our graduates will transform individual and population health.
- > To establish Innovation cell, placement cell and hobby club.

Mid term plan (5-10 Years)

- To make MGCOHA well recognized institute nationally by improving marketing strategies.
- To start PhD program-to strengthen research activities & to encourage students to publish the research work in national & international publications.
- To organize student exchange programs from international universities.
- To introduce electives including modules on Artificial/Machine Learning.

Long term plan (10-15 Years)

- > To strive to become locally strong and globally connected.
- > Work out plans to bring foreign collaboration.
- Accomplish management oriented research including consultation networking in national and global perspective.
- To become one of the best institute for hospital administration globally by providing world class quality education.

MAHATMA GANDHI INSTITUTE OF HEALTH INFORMATICS (MGIHI) Short term plan (In next 5 Year)

- To organize more faculty development programs, CMEs, Workshops and Seminars.
- > To promote research activities in the institute.
- > To promote e-learning of the students.
- > To strengthen tele-medicine consultancy by collaborating institute of Health Informatics with the medical college.

<u>Mid term plan (5-10 Year)</u>

- Digitalization of the data of the patients at Mahatma Gandhi Hospital there by making entire working of the hospital paperless.
- To promote Digital Health Education in medical treatment, training, and research.
- To strengthen the involvement of health informatics in health care organization for better management of patient information.

Long term plan (10-15 Year)

- Digitalization of entire documents of MGUMST and its constituent colleges with the help of Institute of Health Informatics there by making entire working of the university paperless.
- To support health care administration and organization for better management of patients information.
- Develop a workforce who can work with other health care professionals to achieve a quality service.