



## Mission

Provide excellent health care facility, develop competent professionals equipped to create a difference in quality of life of the physically or mentally compromised individuals.



## Vision

Global leadership in human development, excellence in education and healthcare.



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## Quality Policy

School of Allied Health Sciences is committed to provide value based education of International Standard and Allied Health Services.

To enhance Student and Patient satisfaction we focus on continual improvement of Infrastructure, Environment Conducive for Learning, Practice & Research and Facilitate overall Development of Student and Staff.



# Messages



With the diversification of various procedures for treatment of various diseases as a result of the advances registered in the field of Medical Sciences, allied health sciences have assumed prominence with various specialities. I am glad the School of Allied Health Sciences is able to give excellent training to its students to enable them carve out laudable positions in their respective specialities. I am sure the students will make the best use of the facilities provided to fulfil their aspirations. My best wishes to all of them.

**Dr. Ramdas. M. Pai**

President and Chancellor, Manipal University



I am happy that School of Allied Health Sciences, a constituent institution of Manipal University started in the year 1999, is now renowned as the largest full-fledged college in India and Far East Asia. SOAHS is accredited as 'excellent' by RCI, approved by MOH, Sultanate of Oman for training in allied health sciences.

With the excellent facilities provided for gaining a good grasp of the subjects taught, students undergoing their courses here will be able to shape for themselves an excellent professional career.

**Dr. H S Ballal**

Pro Chancellor, Manipal University



School of Allied Health Sciences (SOAHS), Manipal was started in the year 1999. Its main aim is to provide education in the allied health courses and also treat the needy patients of Udupi and Manipal. It is a known fact that allied courses are increasingly gaining importance the world over.

SOAHS, after 16 years of its inception is proud to have a variety of specialities, both at the Under Graduate and Post Graduate levels. The institution has been accredited as 'Excellent' by the Rehabilitation Council of India. It is also the first and largest full-fledged college of allied health sciences in India and Far East Asia. The Universities from Muscat and Oman have sponsored candidates for training in allied health discipline.

Over 2000 alumni spread across the world are a testimony to the world class education provided by SOAHS.

**Dr. K Ramnarayan**

Vice Chancellor, Manipal University



School of Allied Health Sciences (SOAHS) is the most versatile of Manipal University's constituent institutions, offering a broad range of programs. Many of these programs were developed and taught for the first time in the country in SOAHS.

SOAHS has stayed ahead of the healthcare manpower training curve by anticipating the future needs of the industry and preparing appropriate skilled workforce. The institute has addressed such needs in countries like Malaysia, Sultanate of Oman, Nigeria & Ethiopia.

The extent of academic and research collaborations with Universities overseas, research grants, number of publications and the high proportion of faculty with terminal degree are indications that the institute is poised for a big leap forward. The next five years will be exhilarating and invigorating for all those involved with the institute. I wish you all the very best.

**Dr H Vinod Bhat, MD, FRCP (Glasg)**

Pro Vice-Chancellor



It is a matter of pride and honor that School of Allied Health Sciences (SOAHS) happens to be the first and the largest full-fledged college of Allied Health Sciences in India and Far East Asia. Recently, the college has ventured into an overseas dual degree program with Robert Gordon University, UK spreading its wings outside the continent.

This lays the stepping stone for SOAHS; a foundation to multiply and flourish. The Institute has come a very long way since inception and it is needless to say that the students have been a vital component behind this success story. Every year, when a new batch enters in with new dreams, a flock of students leave the Institute to live their dreams and conquer success.

I wish every success to all the students for a very bright and prosperous future ahead. SOAHS has an immense role in your achievement. You are our alumni and you are the ones who will bring reputation to the Institute. Achieve big and make your Institution proud!

**Dr. G. K. Prabhu**

Registrar, Manipal University

# Dean's Messages



Welcome to the School of Allied Health Sciences (SOAHS), the first full-fledged and largest college of allied health sciences in India! Allied health professionals who constitute 60% of the healthcare system in the U.S.A. are involved with the delivery of health related services pertaining to identification, evaluation and prevention of diseases and disorders, rehabilitation and health systems management. SOAHS was carved out of Kasturba Medical College, the flagship institution of the Manipal University in 1999 to train allied health professionals of caliber, who as members of the team along with medical and nursing colleagues would contribute to holistic healthcare of patients. The support from Kasturba Medical College and 2500 bedded Kasturba Hospital, the two iconic organizations of Manipal University with a proud history of medical education and health services enables the college provide excellent theoretical and clinical training of the various allied health sciences courses it offers. The allied health programs that the college offers are specifically designed to prepare graduates and postgraduates for work in rewarding careers in the nationally and globally growing health care industry.

Since its establishment in 1999 as a constituent institution of Manipal University, the growth and development of this institution has been phenomenal. It is now acclaimed as a center of excellence in allied health sciences mainly because of its demand-driven health-related programs and the excellent infrastructure, clinical facilities and dedicated and qualified faculty. SOAHS currently offers undergraduate and postgraduate programs to over 1000 students. The various academic programs summarized in this prospectus are administered by highly trained and experienced faculty of around 100, of whom 25% are Doctorate holders (Ph.D.) in their respective specialties. SOAHS also prides in its presence at Mangalore and Bangalore campuses of the group for a selected few courses.

The strategic location of SOAHS at Manipal, the word now synonymous with excellence in education and healthcare offers an intellectually stimulating environment coupled with rich cultural, social, sporting and harmonious life. Proximity to other reputable constituent institutions of the University also provides multiple opportunities for faculty and peer interaction, which is both academically and socially beneficial to student life.

This prospectus outlines each program and provides information on the criteria for eligibility, course description and career prospects. It is my hope that the reader will find this prospectus resourceful and informative to enable him/her choose the program of their choice. I take this opportunity to welcome you to this University.

**Dr. B. Rajashekhar, Ph. D.**

Dean & Professor (Sp & Hg)  
School of Allied Health Sciences  
Manipal University, Manipal



Welcome to the hub of Allied Health Sciences education. School of Allied Health Sciences is devoted to educating Allied Health Professionals who provide proficient, compassionate care to the needy with a human touch. We provide our students with high quality teaching, practical and clinical training necessary to become effective members of a health care team. Our faculty are well experienced and dedicated to accomplish beneficial student learning outcomes. They are experts in their fields, holding Masters and Doctoral degrees. As a college that continually strives to improve the quality of its programs, have many national and international achievements to its fame. I invite you to explore our brochure and website to understand more about our career oriented programs.

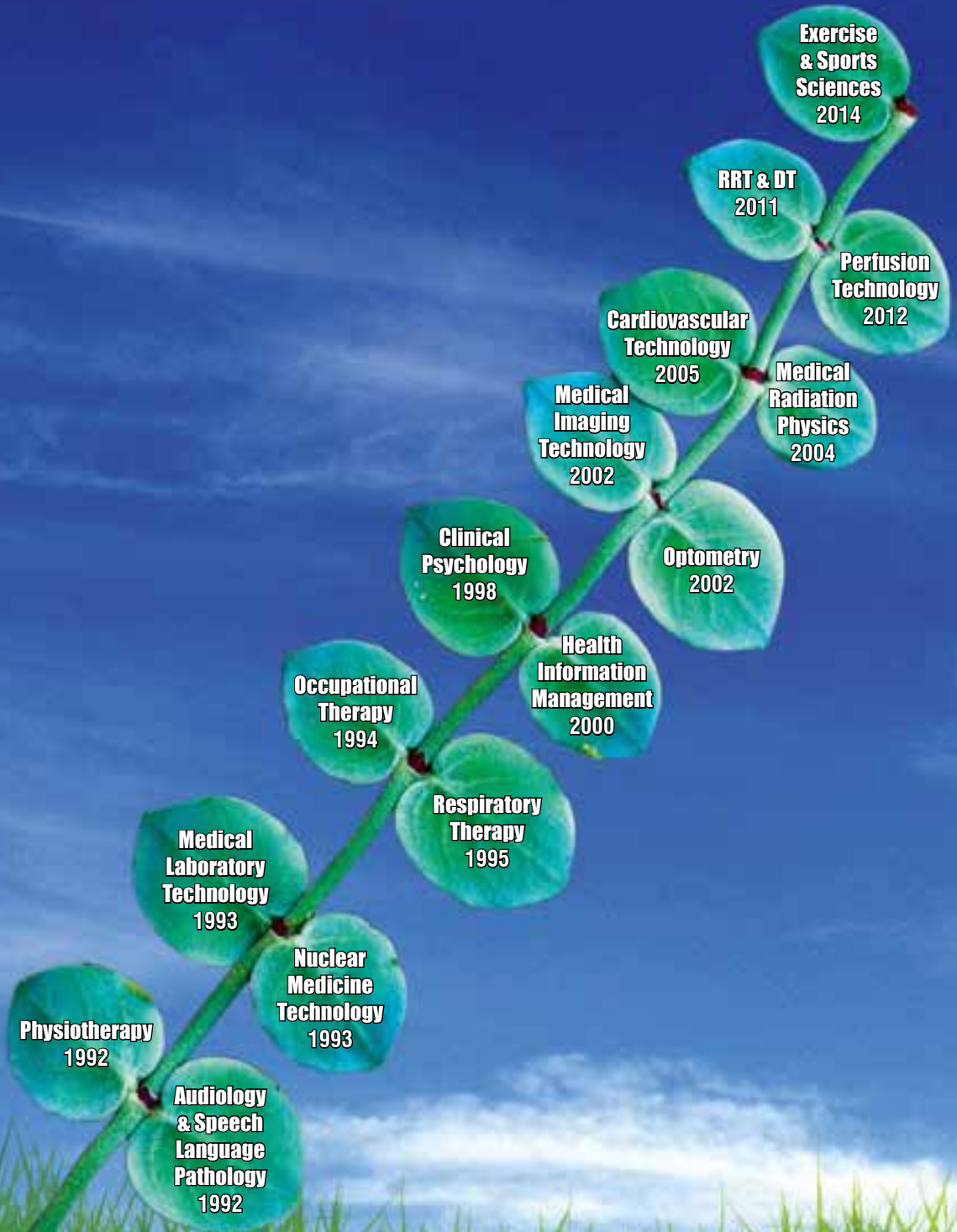
Be a part of our rich tradition and exhilarating future.

**Dr Sabu K M**

Associate Dean, Health Information & Management



# GENESIS





## DEPARTMENT OF PHYSIOTHERAPY

Physiotherapy is a science that seeks to alleviate physical dysfunction, promote optimal function and health of the human body. Physiotherapists evaluate and develop an appropriate treatment plan to facilitate movement, reduce pain, restore function and prevent disability using various exercise protocols and physical agents. Besides their curative role, physiotherapists also prescribe fitness and wellness-oriented programs for an active and healthy lifestyle.

### COURSES OFFERED

#### Bachelor of Physiotherapy (BPT)

This program envisages producing competent physiotherapists who can independently evaluate, prescribe and practice physiotherapy for musculoskeletal, neurological, cardiopulmonary, paediatric and geriatric conditions, to optimize function and improve quality of life. The program also aims at training the graduates to perform exercise testing and prescription in sports and special population.

**Duration:** 4 years + 6 months (compulsory rotatory internship)

**Eligibility:** Pass 10+ 2 Science, A level, IB, American 12th grade equivalent

#### Master of Physiotherapy (MPT)

The objective of this program is to incorporate evidence based practice in physiotherapy and to acquire specific skills required to be a competent academician and clinical specialist in the specific area of physiotherapy. The course also helps the student to become proficient in research methodology and acquire skills in administration to ensure competency for professional growth and autonomy.

**Course Outline:** Consists of classroom teaching, seminars, journal club, recent advances, small group discussion, problem based learning, clinical postings and research. In addition, postings are provided at other reputed centers in the country in order to offer a wider spectrum of clinical experience.

**Duration:** Full time- 2 years

**Eligibility:** BPT, MUCET

MPT Program (SPECIALTIES OFFERED):

- A. MPT Orthopedics
- B. MPT Neurological Sciences
- C. MPT Cardio-Pulmonary Sciences
- D. MPT Community Physiotherapy
- E. MPT Pediatrics Physiotherapy



Practical training in exercise therapy Lab



Foot screening and education



## MPT Sports & Clinical Biomechanics (Dual Degree program)

MPT Sports & Clinical Biomechanics is a two year dual degree program and the first of its kind in the field of physiotherapy in India. During the program, the students spend the first year at Department of Physiotherapy, SOAHS, Manipal University, Manipal and the second year at, Robert Gordon University, Aberdeen, Scotland UK. On successful completion of the program, the candidate is awarded MPT in Sports and Clinical Biomechanics by Manipal University and MSc Sports and Clinical Biomechanics by Robert Gordon University, Scotland, UK.

### Objectives of the program are to:

- Enable students to acquire the cognitive, interpersonal, analytical and research skills to extend and enhance scope of current practice in sports and clinical biomechanics.
- Further develop critical thinking to understand how theoretical biomechanics can be applied to the complex analysis of movement, and promote the ability to make judgements in order to improve athletic performance and reduce injury.
- Raise awareness on the importance of objective measurements of motion as part of assessment and evaluation of sports performance.

### Course outline:

The MPT degree in Sports & Clinical Biomechanics is a two year course consisting of classroom teaching, self academic activities, lab work and clinical postings. The program will focus on advanced training in sports and exercise physiology, theoretical basis and practical application of biomechanics, sports rehabilitation along with research methodology and bio-statistics.

**Duration:** 2 years (2 semesters in Manipal University, Manipal and 2 semesters in RGU, UK, Scotland)

**Eligibility:** BPT from a recognized university

IELTS score more than 7



Evaluation of movement dysfunction



Balance measurement using posturography



Muskuloskeletal pain management



Hands on pedi

## Clinical facilities of Department of Physiotherapy, SOAHS, Manipal

The Department is attached to the 2500 bedded multi specialty Kasturba Hospital at Manipal which ensures excellent clinical exposure to the students in various medical and surgical specialties. In addition, the students are posted at Dr. TMA Pai Hospital Udupi, Dr. T. M.A. Pai Rotary Hospital Karkala, Geriatric, PHCs and Special schools at Udupi for a richer clinical experience.

## Physiotherapy Specialty Clinics in Kasturba Hospital Manipal

The department is equipped with modern electro therapy and exercise therapy equipments and provides treatment and rehabilitation for patients with musculoskeletal pain, neuromuscular and cardiopulmonary dysfunction. The department has the following units to provide high quality care

- A. OPD (Out patient Department)
- B. Orthopedic unit
- C. Neurorehabilitation unit
- D. Paediatric unit
- E. Cardiopulmonary rehabilitation unit
- F. Community based rehabilitation unit
- G. Cancer-rehabilitation unit
- H. Women's health clinic
- I. Hand rehabilitation clinic
- J. Balance and vestibular rehabilitation clinic
- K. Diabetic clinic
- L. LASER clinic
- M. Critical care physiotherapy
- N. Human performance laboratory



Clinical teaching at Orthopaedic unit



Mr. Kiran Challagundla (Third from left) Alumna, SOAHS & Official Physiotherapist of the Indian Badminton Team (BAI) at the London Olympics 2012

## Highlights of the Department

The department is equipped with world class equipment and faculty of high calibre for post graduate training and for high quality research. The department has received research grants from both National and International funding agencies like, Indian Council of Medical Research (ICMR), Department of Science and Technology (DST), Department of Scientific and Industrial Research (DSIR), Board of Nuclear Research and Science (BRNS), Ministry of Education Iran, University of Alabama-National Institute of Health (UAB-NIH) and World Health Organization (WHO).

The facilities available in the research laboratories include EMG Biofeedback, NCV, FES, Isokinetic, Posturography, Dynamic foot scanner and advanced electro physical agents.

Consultation and exercise prescription is provided by the department for "MARENA", Asia's Largest fitness center & Indoor Sports Complex.

## Career opportunities

Career opportunities are diverse with placements in hospitals, rehabilitation units and with sports teams. Those with postgraduate degree can take up faculty positions or setup speciality clinics in hospitals as well as practice independently. Opportunities in the field of research are also increasing with a greater focus for evidence based practice. Clinical and sports Biomechanists can work in private health sector as clinical scientists.

There are opportunities to pursue doctoral programs in India or Overseas for all post graduates.



Training at Neurorehabilitation unit



Screening for Pulmonary Function

## Professional Accreditation

Recognized by:  
 Indian Association of Physiotherapists  
 Health Professionals Council UK

Contact:  
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## Alumni Feedback



*The teaching and learning at this institution is systematic, methodological and very thought provoking. Teachers are friendly, highly qualified, experienced and are involved in high quality research. Excellent University library and campus facilities foster unparalleled learning, education and personality development. Clinical exposure at Kasturba Hospital and off the campus clinical postings had been critical in our learning. Career guidance by teachers helped us choose our clinical specialization and job avenues. We are very proud of our Alma mater.*


**Badrinath Prathi**  
 Team Sports Physiotherapist  
 Delhi Ranji Cricket Team, DDCA



*Being part of twinning programme, introduced for the first time in the country in the field of physiotherapy, this course was something which I could completely relate to. The first year at Manipal University gave me a good exposure in the field of musculoskeletal injury and rehabilitation. The second year at the Robert Gordon University with its well equipped gait lab and motion analysis instruments, I had the chance to abreast my skills in the field of lab based clinical/sports biomechanics analysis. This course is a great initiative from Manipal University and definitely aims to widen the horizon for the practicing physiotherapists towards latest advancement in the objective analysis.*

**Darshika**  
 Musculoskeletal Physiotherapist, Ann Physiocare, UK





# DEPARTMENT OF OCCUPATIONAL THERAPY

Occupational Therapy is one of the fastest growing allied health professions across the globe in the field of rehabilitation. Occupational therapists are very much in demand for their knowledge and abilities to restore individuals with physical and mental illnesses back toward functional independence. Their emphasis and focus on empowering individuals through training in daily living activities, prescription of assistive technology and therapeutic techniques makes them indispensable. Occupational therapists play a crucial role in promoting health and well being across the life span through their various areas of practice, right from neonatal care to care for elderly population.

## COURSES OFFERED

### Bachelor of Occupational Therapy (B.O.T.)

This course is designed to mould professionals in Occupational Therapy to evaluate and manage efficiently and skillfully person with various physical and mental traumas, which can affect their functional status. This course will also provide them opportunity to develop their clinical reasoning and professional skills.

Duration: 4 ½ years full time course [4 years of academics & six months of internship]

Eligibility:

- +2 / PUC with Science and minimum of 45% marks
- OT students/ OT Diploma graduates (lateral entry to 3<sup>rd</sup> year BOT)

### Masters of Occupational Therapy (M.O.T.)

This course is designed to provide evidence based practice to impart higher education of quality and excellence so as to prepare an occupational therapist to be a good researcher, effective administrator, knowledgeable educator, skilled clinician and endeavor to contribute to the profession and uphold values central to occupational therapy and the areas of specializations provided in this course are -

- Hand and Musculoskeletal Conditions
- Developmental Disabilities
- Neuro-rehabilitation
- Mental Health and Psycho-social rehabilitation

Duration: 2 years Full Time post professional Course

Eligibility: B.O.T

### Certificate Course in Hand Splinting

This course is specially designed to equip the participants with hands on skill to practice with competence and efficiency.

Duration: 1 (one) month full time course

Eligibility: Qualified Occupational Therapist

## Clinical facilities

**Neuro-rehabilitation Section:** This specialized unit provides rehabilitation services for both acute and chronic neurological conditions. Various techniques used in this unit are sensori-motor/ neuromuscular retraining, cognitive- perceptual remediation, balance & coordination training, pain management, functional electrical stimulation & coma stimulation.



Cognitive rehabilitation in occupational therapy



Developmental therapy in Paediatrics

**Child Habilitation Section:** This section provides a play oriented therapeutic environment for children with Cerebral Palsy, Learning Disability, Developmental Delay, Congenital anomalies, Autism etc. The services provided in this unit are gross and fine motor skill development, visual motor and visual-perceptual training, play therapy, handwriting remediation, sensory integration therapy & oro-motor training for feeding problems.



Child habilitation in Occupational Therapy

**Orthopedics Rehabilitation section:** This unit deals with all kind of pre and post operative orthopedic and trauma conditions. The services offered are amputee retraining and prosthetic management, biofeedback, back care, strength, range of motion and endurance training, pressure garments and management of post burn contractures hypertrophic scar and hand rehabilitation



Occupational therapy in Hand Rehabilitation

**Mental Health Section:** This unit provides rehabilitation services for patients with acute and chronic psychiatric illnesses. The services provided in this unit are activity /time scheduling of daily activities,

work skills and work behavior training, enhancing role identification and performance, stress management programs, assertiveness training, group therapy & social skills training.

**Hand Splinting:** This unit has state of the art facility and specializes in design and fabrication of splints and assistive device that facilitate functional recovery in a variety of orthopedic, neurological and pediatric cases. Special features include: design and fabrication of conventional / unconventional splints and low-tech assistive devices, that are custom made to individual's requirement.



Splinting in Occupational Therapy

## Highlights

- Recognized by ISO 9001:2000
- Recognized by All India Occupational Therapists' Association (AIOTA)
- Recognized by World Federation of Occupational Therapy (WFOT)
- Recognized by Health Professionals Council (HPC, UK)
- Recognized by National Board of Certification for Occupational Therapist (NBCOT, USA)
- Most sought after destination for OT students all over the globe for their Clinical Placement.
- Clinical facilities in a 2500 bedded multispecialty hospital, ensuring exposure to wide range of clinical conditions
- The Standard Evaluation Laboratory has the highest numbers of original standard assessment tools related to motor, cognitive, perceptual and psychosocial components such as Reaction timer, FES, Electrogoniometer, Ergometry etc. It also has a full fledged specialized ADL section, splinting assistive technology lab.
- The Library has about 20 OT & Rehabilitation journals, an exclusive collection from AOTA Publication and free access to online Occupational Therapy journals.

## Career Opportunities

- Occupational Therapist can work in various centers such as
  - Hospitals
  - Mental Health Center
  - Child Habilitation Center
  - Private Consultancy
  - Schools / Special Schools
  - Industrial Rehabilitation Facility

- OT professionals can pursue Masters and PhD in specialized fields
- Recently was ranked No. 10 in United States "U.S. News & World Reports Best Job 2012".

### Contact

Head of the Department  
 Dept of Occupational Therapy  
 School of Allied Health Sciences  
 Manipal University, Manipal-576104  
 Email: ot.coahs@manipal.edu  
 Ph: +91 820 2922188



Group activity with clients with mental illness



Art and crafts as expressive activities

## Alumni Feedback

Our alumni are placed across the globe, namely in UK, USA, Singapore, Middle East, Australia, Ireland, New Zealand, Canada and of course, in India.



*"The decision to enroll in the OT program at Manipal University has been so rewarding. It has helped me to grow not only as a professional but also as an individual."*

**Apeksha Ramdevsinh Gohil (BOT – 2006 Batch)**

Occupational Therapy Doctorate student,  
 Department of Occupational Therapy, University of Illinois at Chicago (UIC)



*"The program in occupational therapy houses highly dedicated, talented and student centered faculty that aims to empower the future generation of occupational therapy practitioners!"*

**Divya Sood (BOT - 1998 Batch)**

Assistant Professor & Research Coordinator  
 Department of Occupational Therapy, Governors State University, Illinois, USA



*"Department of Occupational Therapy, SOAHS has a very rich academic culture. Learning at this place gives students a great amount of confidence and encourages the intellectual development so that they can serve mankind endlessly."*

**Vidushi Sharma (2003 – BOT Batch; 2008 – MOT Batch)**

Assistant Professor  
 Indian Spinal Injury Center- Institute of Rehab Sciences, New Delhi





## DEPARTMENT OF AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY

The Speech-Language Pathology and Audiology is one of the upcoming and exciting profession with excellent job prospective. This specialty is committed to serve the persons with speech and hearing disorders. Imparts clinical services to those with speech and hearing impairment.

### COURSES OFFERED

#### **Bachelor of Audiology and Speech – Language Pathology (BASLP)**

The graduate program is designed to mold professionals in Speech-Language Pathology and Audiology who can independently and along with health care team evaluate and manage persons with speech and hearing disorders across the age group. This encompasses evaluation and management of delayed speech, misarticulation, voice problems, stammering, neurological speech disorders and assessment of hearing impairment and prescription, fitting of amplification devices.

Duration: 3 years + 1 year (Compulsory Internship)

Eligibility: 10 + 2 (Science stream) or diploma in speech and hearing with 2 years of experience.

#### **Master of Audiology and Speech - Language Pathology (MASLP)**

The Master Degree program aims to enhance the theoretical, clinical, and research knowledge with state of art technology in the area of Speech-Language Pathology and Audiology.

Duration: 2 years

Eligibility: BASLP

#### **Doctor of Philosophy (PhD)**

The Department offers PhD program with an aim to develop fine-tuned researchers in the area of Speech-Language Pathology and Audiology.

#### **Certificate program**

##### **Voice rehabilitation after laryngectomy:**

Course offers 6 months online training and a short term hands on experience in voice restoration after laryngectomy for practicing SLPs.

##### **Classroom management of children with hearing loss:**

Short term certificate program (2 weeks)for school teachers regarding the classroom management of children with hearing loss and how to integrate them with normal children

### Clinical Facilities

#### **Audiology**

- Routine services:
  - Pure Tone Audiometry
  - Speech Audiometry
  - Middle Ear Analysis
  - Auditory Training
  - Counseling and Hearing Aid Prescription
  - New born hearing screening unit
  - Ear mold lab
- Advanced services:
  - Brainstem Evoked Response Audiometry (BERA)
  - Oto Acoustic Emission Testing
  - Standardized objective calibration of audiological equipments
- Objective verification of hearing aid fitting & evaluation
- Cochlear implant assessment and rehabilitation
- Tinnitus evaluation and management
- Standardized noise measurements
- Advanced cognitive research using Neuroscan

#### **Speech Language Pathology Services**

- Comprehensive evaluation of speech and language in children, adults and elderly
- Instrumental analysis of speech and language assessment
- Speech and language therapy services
- Laryngectomy rehabilitation
- Assessment and management of swallowing disorders (Dysphagia)
- Neuro Communication Disorders Unit (NCDU) and cerebral palsy clinic for the assessment and management of people with stroke and related brain disorders



Hearing evaluation

## Highlights

- The expert committee of the Rehabilitation Council of India (RCI) has awarded the department "excellent" for its training programme and contribution to the welfare of the hearing handicapped.
- The Department has received research grants from the country's prestigious funding bodies such as Department of Science and Technology, ICMR, ICSSR, Govt. of India, and conducts research projects in collaboration with other national institutions.
- Few of the modern age instruments currently used in the department for the assessment, treatment and research in the field of speech, language and hearing disorders include

### THE COMPUTERIZED SPEECH LAB (CSL)

Most advanced analysis system with a complete hardware/software system for the assessment and treatment of speech and voice disorders



Computerized analysis of nasal speech

### ELECTROGLOTTOGRAPHY (EGG)

Non-invasive instrumentation to investigate the vibratory characteristics of the vocal folds

### SPIROMETER

Unique instrument to test the lung function with real-time display of airflow and detailed measurement matrices in high resolution

### NASOMETER

A powerful clinical tool for the assessment and treatment of nasality problems

### PURE TONE AUDIOMETRY

Department holds most advanced computerized and standspace dual channel audiometers for hearing evaluation



Voice Restoration of Throat Cancer Patients

### IMMITTANCE METER

Basic as well as advanced measurement techniques and procedures for diagnosis of middle ear condition

### OTO ACOUSTIC EMISSIONS (OAEs)

The department has advanced diagnostic and screening OAE instruments for the assessment of cochlear

### BRAINSTEM EVOKED RESPONSE AUDIOMETRY

Labs are also equipped with most advanced clinical/research instruments to assess auditory brainstem responses

### NEUROSCAN

The state of art, full fledged research system used for auditory, visual, cognitive and motor system researches of international standards and one of the rarest facility available in the country



Making ear mold impressions



Ear mold preparation



Pure tone audiometry

## Career opportunities

Students completing atleast the graduation course are entitled for the designation of 'Audiologist and Speech-Language pathologist' (ASLP). Such professionals have an excellent opportunity to work in a variety of set-ups such as hospitals, rehabilitation centres, polyclinics, industries, training institutions, and they even have the option of doing private practice. Currently, ASLPs are in an increasing demand to work in the country as well as abroad with an attractive salary package and other benefits.

## Professional accreditation

Program offered by the department have been recognized by the Rehabilitation Council of India

### Contact:

Head of the Department Department of Speech and Hearing, School of Allied Health Sciences, Manipal University, Manipal - 576104

Email: [aslp.coahs@manipal.edu](mailto:aslp.coahs@manipal.edu)

Ph: +91 820 2922577

## Alumni Feedback



*"I'm so glad to be a part of this prestigious Manipal university since 1992 right from my graduation to doctorate. Thanks to Dr.TMA Pai, for his extraordinary vision to build such a wonderful learning environment for all of us. I'm proud to be a faculty of the department of Speech & Hearing of SOAHS which is recognised nationally and internationally for its quality work."*

### **Dr. Venkataraja Aithal U., PhD. (1992 Batch)**

Professor, Dept. of Speech and Hearing, SOAHS, Manipal.



*"After receiving my bachelors at the School of Allied Health Sciences, I moved to the US to pursue my clinical doctorate in Audiology. Having spent a few years in healthcare and having met people from all walks of life, I am grateful to the nurturing faculty at SOAHS for instilling in me the knowledge and work ethics that help me face the many day to day challenges of professional life. I owe my modest accomplishments to Manipal's world-class education and ethnic diversity."*

### **Namita Gehani, Au.D (2005 Batch)**

Clinical Audiologist at Associates in Hearing Healthcare, NJ, USA



*"I came to Manipal for my undergraduate degree in audiology/speech-language pathology, because of its reputation for excellence and academic rigour, and my degree left me in a position to compete with scientists from all over the world..."*

### **Dr. Saloni Krishnan (2004 Batch)**

Post Doctoral Research Associate, Birkbeck, University of London.



*"I studied BASLP at Manipal University. Currently I practise at HearWell Audiology Clinic in Tanzania as an Audiologist and Speech and Language Pathologist. I enrolled into BASLP looking for a career that combined my passion for science and to make a difference in peoples' lives and I am proud to say that Manipal gave me more than what I expected! The department of Speech and Hearing at Manipal is a very well equipped facility that exposed me to all aspects of Speech and Hearing that I have now managed to implement at my workplace. This has resulted me in having a successful career and contentment of being able to transform lives everyday."*

### **Rashida (2006 Batch)**

HearWell Audiology Clinic, Tanzania



*"Our "Speech/Language Pathology and Audiology" educational experience in Manipal was transformative-which began the moment we set foot to the campus 20 years ago, laying the best foundation and continues to shape who we are today. SOAHS opened my opportunities to the limitless educational possibilities offered by a great university, set in a diverse and resource-rich location."*

### **Archana Acharya (1992 Batch)**

Speech Language Pathologist, Lawrenceville, NJ 08648, USA.





## DEPARTMENT OF MEDICAL LABORATORY TECHNOLOGY

Medical Laboratory Technology (Laboratory Medicine) is concerned with the detection and measurement of biological changes in disease. Medical laboratories carry out a wide range of biological investigations in ever increasing numbers in a complex automated and computerized working environment. In addition to routine diagnostic work, personnel are also frequently involved in clinical trials work, Quality assurance and research and so require a detailed knowledge of the effects of disease on biological measurements. Medical laboratory technology is a constantly evolving and rewarding career and an integral part of a health care system.

### COURSES OFFERED

#### **Bachelor of Science in Medical Laboratory Technology (B.Sc. MLT)**

The Bachelor of Science in Medical Laboratory Technology Program is a full-time four years educational program that leads to a career in diagnostic laboratory medicine. During the program students acquire the academic knowledge, technical skills, and critical thinking experiences necessary to become proficient healthcare professionals. Participants put their scientific knowledge into practice, and are prepared to perform laboratory procedures related to patient diagnosis and treatment. Qualified graduates work in Hospital set up as a part of Health care team or independently, in research area as assistants, quality control departments. Academic job chances are also available for them.

Duration: 3 years plus 1 year of Compulsory internship

Eligibility: Pass in 10+2 with minimum of 45% marks (Science stream) or diploma in Medical Laboratory Technology

#### **Master of Science in Medical Laboratory Technology (M.Sc. MLT)**

**Specialization:** Microbiology & Immunology, Clinical Biochemistry

This program is aimed at candidates with a background of graduation in medical laboratory sciences who want to acquire further specialization in technology towards

applications in medicine. Specializing in medical laboratory science will give broad competence in clinical biochemistry, microbiology and Immunology. M.Sc. MLT curriculum has been tailored to provide motivated professionals having enhanced knowledge and skills with a better sense of accomplishment and increased self-confidence.

**Duration:** 2 years full time course

**Eligibility:** B.Sc. MLT from a recognized University with minimum 50% marks

#### **Diploma in Medical Laboratory Technology**

**Duration:** 2 years

**Eligibility:** 10+2 or equivalent (Science)

#### **Certificate course in Transfusion Medicine**

The department conducts a certificate program in Transfusion Medicine to enhance the skills and knowledge in this discipline. This course aims to train the clinical laboratory technologists/technicians on various aspects of blood banking over a period of six months, which is open for clinical laboratory technicians/technologists.

**Eligibility:** DMLT, BSc.MLT

**Duration of the course:** 6 months

**Number of Candidates:** 5 per year

#### **Certificate course in Laboratory Safety**

This certificate program ensures the mandatory knowledge of laboratory hazards along with safety precautions needed for the laboratory professionals and students enrolled in health science courses. Though tailor made for clinical laboratory students and staff, this program is designed to suit any research or health personnel in terms of laboratory safety and waste management. The course will also benefit the staff employed in healthcare, pharmaceutical, and biotechnology Course.

**Eligibility:** Bachelor of science/DMLT with 2years experience

**Duration:** 1 Month

**Number of seats:** 10

## Clinical Facilities

The students are well trained in the various state of the art clinical laboratories of Kasturba Medical College Hospital, Manipal, which includes - Clinical Biochemistry, Clinical Pathology, Clinical Haematology, Clinical Microbiology (Bacteriology, Mycology, Virology and Parasitology), Clinical Immunology, Molecular technology & Genetics and Transfusion Medicine.

These laboratories are well equipped with the most sophisticated instruments and both under graduate and post graduate students are getting training on advanced technologies like Auto analysers, Immunofluorescence, ELISA, Western blot, PCR and other molecular techniques, HLA Typing, Karyotyping, Drug and Hormonal analysis, Automated tissue processing etc.

In addition to this, there is an Analytical laboratory and a Multi- purpose laboratory in the Department itself to conduct the practicals for students. These labs are equipped with enough number of microscopes, centrifuges, spectrophotometers, ELISA reader, weighing balance, water bath, Incubator, hot- air oven, pH meter, electrophoretic chamber etc. and are spacious and student friendly for instruction and independent practice.



## Highlights

Third centre in India to start post graduate program in Medical Laboratory Technology, the Dept. is committed to provide, efficient and balanced training in Laboratory Medicine, including research and fostering the development of sub- specialty expertise tailored to each student's career goals.

UG & PG Courses are certified as per ISO standards 9000-2008 & 14001-2004

Recognized by Health Professional Council, UK

## Career Opportunities

Whether you're an experienced laboratory professional, a new graduate, Medical Laboratory Technologists (MLTs) are one of the largest groups of health care professionals, and their career outlook is very positive. While most Medical Laboratory Technologists work in hospitals, educational institutes and private laboratories, MLTs also find challenging employment in other areas. From industrial research and public health laboratories to forensic and pharmaceutical laboratories, the MLT's analytical, scientific and technical skills are a valuable asset.

### Other career options include:

- Consulting
- Research & Product Development Laboratory
- Information Systems Supervision/ Administration/ Management Public Health/ Infection Control
- Quality Assurance/ Total Quality Improvement
- Sales & Marketing
- Forensic Biological Sciences
- Laboratory Genetic councillor

### Contact:

Head of the Department, Department of Medical Laboratory Technology School of Allied Health Sciences Manipal University, Manipal-576104  
E mail ID: mlt@coahs.manipal.edu  
Ph: +91 820 22936

## Alumni Feedback



*Department of MLT gave me the opportunity to build and develop myself not only in professional aspects but also as a responsible person. The department is a great opportunity for students to broaden their knowledge beyond their field of studies within a cosmopolitan environment. It is a blend of excellent infrastructure with friendly faculty members. Here, you are inspired to excel. Without any hesitation I can say it's the best place to study and stay in. That's why the days in Manipal were the best in my life. I miss those days.*

### **Dr. Sanjivan Gautam (2003 Batch)**

National cancer Institute, National Institute of Health, Bethesda, USA



*As a student I can say that SOAHS, Manipal is the best one to be at ! These sorts of Allied Health Sciences colleges are very rare with state of the art facilities. Department of Medical Laboratory Technology is the right choice considering job prospects and higher education perspectives. The staff and teachers are very passionate and show a genuine desire to help students to achieve their goals. The department has all the modern facilities which promote a great learning environment that suited to meet the needs of a student like me. Clinical laboratory postings in a tertiary care hospital like Kasturba Hospital is a great experience as it gives the best time to deal with most modern technologies . What I also love in the institution is the fact that I could meet people with different cultural backgrounds and could learn a lot from them.*

### **Rinu John Mathew (2011 Batch)**

Canada



## DEPARTMENT OF HEALTH INFORMATION MANAGEMENT

If you have an interest in Healthcare, Management, and Information Technology, then Health Information Management may be the right career choice for you. Positioned at the heart of the health care system, Health Information Management professionals' responsibilities include planning health information systems and identifying current and future health information needs, contributing both to the healthcare system and people's health for medical decision making and patient care planning.

### COURSES OFFERED

#### **B.Sc. Health Information Administration (BHIA)**

This graduate program is designed to equip students to take up independent middle level managerial positions, interacting with all levels of health care organizations, and use patient data in decision making and everyday operations.

The graduates may work in a broad range of settings that span the continuum of healthcare including hospitals, physician practices, nursing homes, home health agencies, mental health facilities, and public health agencies.

Duration: 3 year (6 semesters)

Eligibility: 10+2 with 45% marks (any discipline)

#### **M.Sc. Hospital & Health Information Administration (MHHIA)**

This interdisciplinary program, focusing on Health Information Management, Health care administration, Information Technology in Health care and Applied areas in Healthcare, is a unique postgraduate program specially designed based on recent health care market requirements.

The course structure is developed systematically, incorporating intensive training & specialized curriculum, to equip students to multi-task in today's competitive health care environment. Positioned at the top of the healthcare management team, these HIM professionals use their clinical knowledge of disease and surgical procedures, technical knowledge of computer systems, and their management skills to set up and monitor these healthcare systems.

Duration: 2 year (4 semesters)

Eligibility: Graduate in any discipline with minimum 50% marks.

#### **MSc Health Informatics**

This program is designed based on healthcare industry and IT industry requirements and enables students to become an efficient and constructive health informatics specialist with help of the knowledge & skills they acquired from intensive training & specialized curriculum. The program is offered jointly by School of Allied Health Sciences (SOAHS) and School of Information Sciences (SOIS), Manipal with two specializations.

Duration: 2 years (4 semesters)

Eligibility:

Healthcare IT Management: Bachelor's degree OR equivalent in MBBS/BDS/Nursing/ Allied Health courses with a minimum aggregate of 50 % marks.

Software Development & Management: Bachelor's degree OR equivalent in B.Sc. (with Phy/Math) /BCA / Engineering with a minimum aggregate of 50 % marks.

#### **Certificate Program in Medical Record Management**

The department also conducts a comprehensive 2-week certificate program for those who seek professional growth and wish to enhance and update their knowledge and skills in Medical Records Management. The content of the program is developed in a way to meet the demand of working professionals such as Medical Records Officer, Medical Records Technician, Medical Records Clerks and other healthcare professionals involved in management of patient health information.

Duration: 2 weeks (full time)

Eligibility: Graduation with 2 years of experience / 10+2 with 3 years of experience in Medical Records Department

#### **Certificate Program in Medical Coding and Billing**

Through the Medical Coding training program, a candidate will gain the knowledge needed to obtain an entry-level position in the medical coding and health insurance billing field. Upon certification, the candidate will have a working knowledge of coding systems ICD-10, CPT (Current Procedural Terminology) and ICD-



9-CM, so that one can assign the proper codes in medical computer systems. The candidate will be trained sufficiently with the medical terminology, medical billing, coding, and application areas of coding and billing.

Duration: 2 weeks (full time)

Eligibility: Undergraduate/postgraduate Students of any health science course, any health science graduates, candidates working in Medical Records Department with science background.

## Career opportunities

Traditional settings include: Managing an HIM/Medical records department, cancer registry, coding, trauma registry, transcription unit quality improvement, release of information, patient admissions, compliance auditor, physician accreditation, utilization review, physician offices and risk management.

Non-traditional settings include: consulting firms, government agencies, law firms, insurance companies, correctional facilities, extended care facilities, pharmaceutical research, information technology and medical software companies.

Since accreditation of hospitals and other health care settings are becoming increasingly important in the national scenario with agencies like NABH, JCI etc. involved in accreditation, role of health information managers are inevitable.

## Infrastructure and Facilities in the Department

### Health Informatics Laboratory

Health Information Management Department has a modern, well equipped Health Informatics Lab, with more than 25 workstation with sophisticated software required for advanced training in Health Informatics, Computer Application in Health, Medical Transcription and Database Management System. All the systems have internet connectivity to enable students learning process

for acquiring information on recent developments in health information management and research. This lab is also intended to facilitate student's participation in Seminars and Continuing Health Information Education Program.

Being attached to Kasturba Hospital, Manipal allows students to get hands-on-training from one of the largest and best medical records department of the country.

## Department Highlights

- The department has placement facility for its students.
- The department boast of some good industry alliances which gives the students chance to work and learn from big names in Indian Healthcare industry.
- The department conducts regular continuing health information education programs to allow its students to enrich their knowledge on recent advances in health care industry. The students are also provided with ample opportunities to interact with health care industry experts.
- The department conducts regular research activities that provide hands on research exposure to the students.
- All the passed out students of this course are well-placed at various well known healthcare organizations.
- The department is well-regarded in the healthcare industry as one whose students are capable of taking on independent responsibilities and making a mark for themselves.

Contact:

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## Alumni Feedback



*I would say... joining the Master's program in Health Information Management at Manipal University was one of the best decisions I had taken in my life.. The curriculum and training had really helped me in developing my qualities and skills to be a team player as a health information management professional. As the requirement for qualified HIM professionals are on the rise globally, Manipal University offers one of the best academic experience in India.*

*Teaching was my all time favourite dream and I was lucky enough to be a part of the teaching faculty of my Alma Mater for few years. The experience I earned from SOAHS and Manipal University has helped me continue my dream profession overseas as well. Today being a proud alumni of Manipal University, I am grateful to all my teachers and mentors at Manipal for all it has offered to be me what I am today.*

**Geena Mary Skaria (Batch of 2003)**

Lecturer, College of Allied Health Sciences, Gulf Medical University, Ajman, UAE



*"I am a Consultant with Application Management Services division of Deloitte US India. My job needs in-depth knowledge of US Healthcare industry. My post graduation at Manipal, i.e. Master of Science in Hospital & Health Information Administration, helped me learn the terminologies, structure and legislations of US Healthcare system alongwith the application of the management principles in hospital operations. It didn't just help me ascending well in the career path but also took me in the direction of my interests and be a subject matter expert (SME) in Healthcare Provider Industry."*

**Avinash Chander (Batch of 2006)**

Consultant - Healthcare Technology Consulting, Deloitte Consulting US India



## DEPARTMENT OF OPTOMETRY

Optometry is a primary eye care profession dedicated for the care of one of the most treasured human senses- Vision. The profession provides an intellectually stimulating career with a humanitarian role in today's society. Optometrists examine and diagnose conditions that affect the eye and visual system. They are trained to manage the defects of the eye and associated structures that do not warrant medical and surgical intervention.

### COURSES OFFERED

#### **Bachelor of Clinical Optometry (B.Optom)**

This course is designed to prepare the graduates for the dynamic practice of Optometry with patient-centered educational program. This course provides platform for the students in primary eye care and various other specialties like contact lens, low vision and pediatric and geriatric services

Duration: 3 year + 1 year internship

Eligibility: 10+2 or equivalent with minimum 45% marks

#### **Master of Optometry (M.Optom)**

This course aims to produce post-graduates of high standards in research & academics who are equipped with appropriate clinical skills to meet the challenges and problems of different specialties in eye care.

Duration: 2 year full-time post graduation program

Eligibility: Bachelor in Optometry with minimum 50% marks

### Clinical Facilities

- Primary eye care clinic: Students will get exposure in general examination of eye and visual system, such as vision assessment, measurement of refractive errors, anterior and posterior segment evaluation and other tests.
- Pediatric and Orthoptic Clinic: This clinic specializes in evaluation, diagnosis and management of wide range of ocular problems and visual disorders in children as well as adults. It also offers vision therapy services for children and adults.
- Contact lens clinic: It offers fitting of contact lenses and follow-up care for therapeutic and cosmetic needs. It is designed to allow the students to gain

- clinical experience under close supervision by qualified staff and is equipped with instruments like slit lamp imaging system, corneal topographer, pachymeter etc
- Low vision & Rehabilitation clinic: This clinic helps the visually impaired patients to regain some independence in activities such as reading, recognizing faces, walking, managing house hold tasks, returning to work, enjoying hobbies and classroom participation. It provides a variety of vision enhancement devices for the visually impaired people to help to maintain independence and quality of life.
- Community eye care services: Community outreach programs organized by departments of Optometry and Ophthalmology help the students to understand the importance of community eye care and provide a great opportunity for the primary eye care delivery under the supervision of qualified teachers.

### Highlights

- Department of Optometry is affiliated to Association of Schools and Colleges of Optometry in India (ASCO) which is a member of World Council of Optometry (WCO)
- Resource center for International Association of Contact lens Educators (IACLE), Sydney, Australia
- Resource center for International Center for Eye care Education (ICEE), Sydney, Australia
- State-of-the-art facilities in primary eye care, contact lens, low vision and pediatric clinic
- Attached to a well equipped Ophthalmology department
- Opportunity to core Optometry research
- Advanced library with a large collection of books and on- line journals

### Career opportunities

- An independent practice (own eye clinic/ optical outlet)
- As a consultant optometrist in hospitals with ophthalmologists
- In specialty eye clinic as:
  - Contact lens specialist
  - Pediatric optometrist
  - Orthoptist
  - Low vision practitioner

- As a consultant optometrist in optical outlets
- As a technical expert/professional service executive in multinational companies which make contact lenses, ophthalmic lenses, ophthalmic/optometric instruments and ocular medications
- In public health and community eye care
- Teaching in optometry institutions
- In the area of research



**Contact:**

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 Department of Optometry  
 School of Allied Health Sciences  
 Manipal University, Manipal 576 104  
 Email: optometry.mcoahs@manipal.edu  
 Ph: +91 820 2922171

## Alumni Feedback



*Science, Freedom, Beauty, and Adventure what more could you ask of life?? And it was 6 years ago when I first set foot in Manipal. With time, I grew to love the place! The education provided is par standard. It was here that I learnt independence, tolerance and understood my priorities. Manipal has given me so much; ohhh looks like it was a small journey, but when I try to turn back I realize they were the big things, the beautiful young moments of my life. I could not bear to bring myself goodbye from the college which has given me so much*

**Priyanka**

B.Optom (2005-2009), M.Optom (2009-2011), Lecturer, Sankara College of Optometry, Bangalore



*Being a student of the department of Optometry at Manipal University, Manipal, one of the best in India was an Incredible and unforgettable experience in my Life. The Knowledge and skills acquired have placed me in the limelight of my profession as an Optometrist and has been a propelling force that has lead me in pursuing a Doctor of Optometry program currently, at KNUST Ghana.*

**Chineyemba Benedicta Nkonye,**

B.Optom (2005-2009) Student-Doctor of Optometry, KNUST Ghana



*The goal of any education is to give the student the ability to reason and think critically, and Optometry Department in SOAHS was the facilitator that developed my critical thinking skills. The values that were taught and lived out encouraged such attributes as integrity, commitment, respect, and service to others before self. This gave me a solid foundation not only for learning, but for life. Not only do I feel that I received the best education, but I was blessed also by wonderful, personal teachers, extracurricular activities, and scores of memories. I feel proud that I am a product of SOAHS.*

**Sandeep Kumar Pandey,** B.Optom (2006-2010)

Incharge - Optometry Department, Indira Gandhi Eye Hospital and Research Centre, Lucknow (U.P), India



*I entered School of Allied Health Sciences six years ago with a vague idea of what I wanted to do, be, and where I wanted to go. SOAHS was invaluable in not only helping me find my direction, but helping me learn the skills that I needed to get there. The education that I have received has left a lasting impression which I will carry throughout my career in the Optometry world. The faculty at Optometry department wanted each of us to succeed and they were always there to lend assistance in any way necessary. I could not have picked a better course and college!! I loved being there!!*

**Ms.Tejpal Kaur** B.Optom (2005-2009), M.Optom (2009-2011)

Lecturer, National Institute Of Ophthalmic Sciences,  
 The Tunn Hussein Onn National Eye Hospital, (THONEH), Malaysia





## DEPARTMENT OF RESPIRATORY THERAPY

Respiratory Therapy is an allied health profession which gives one opportunity to treat the critically ill admitted in Intensive care units to health. Respiratory therapists closely work with intensivists to evaluate and care for patients with breathing disorders. Respiratory therapy ranges from round-the-clock care to infants whose lungs are not fully developed to the elderly whose lungs are diseased. They are an integral part of the pulmonology team and emergency medical team tackling code blue and rapid response calls in-hospital.

### COURSES OFFERED

#### **Bachelor of Science in Respiratory Therapy (B.Sc. RT)**

The objective of the programme is to educate and train the candidates to independently evaluate, assess, diagnose, plan and practice respiratory therapy in critically ill patients. The course prepares students to give intensive care to patients suffering from diseases ranging from medical to cardiac, neuromuscular and pulmonary illness requiring ventilatory care and subsequent pulmonary rehabilitation. They are trained in pulmonary function testing and polysomnography which promises opportunity for independent practice.

Duration: 3+1 year of compulsory internship.

Eligibility: + 2/PUC with Science and minimum of 45%, Diploma in Respiratory Therapy (2 Years)

#### **Master of Science in Respiratory Therapy (M.Sc. RT)**

The programme helps in enhancing skills in adult, pediatric and neonatal respiratory care, to incorporate evidence based practices and to encourage research in the field. The curriculum includes licensure exams like Advanced cardiac life support, Pediatric advanced life support and International trauma life support which is accepted worldwide. The coursework provides the candidate with the platform to excel in teaching and administrative skills. MSc RT- Adult Respiratory care and Specializations: MSc RT Neonatal & Pediatric Respiratory Care are the specialty areas in masters programme.

Duration: 2 years

Eligibility: Candidates with Bachelors degree in Respiratory Therapy.

#### **Certificate course in Respiratory Therapy**

This programme updates diploma holders and on the job trainees in respiratory therapy making them eligible to appear for Indian licensure exams conducted by IARC.

Duration: 1 year with 1 month of compulsory internship.

Eligibility: On the Job Trainees in respiratory therapy with 3 years of experience.

#### **Emergency Medical Technician Course**

This course is designed to train candidates to manage emergencies at primary level in triage, accident sites and ambulances.

Duration: For candidates after PUC (1 year)

Eligibility: For candidates with any other health care degree (6 months).

### Infrastructure (Clinical Facilities)

- The department has a full-fledged respiratory therapy equipment lab with cylinders, flow meters, pressure regulators, adult & neonatal intubating mannequins, adult & paediatric resuscitation mannequins, various oxygen therapy equipments, mechanical vibrators, and mechanical ventilators.
- The Respiratory Therapy Department has a fully equipped modern Pulmonary Function Testing lab consisting of a portable PFT machine along with a high end state of the art Quark PFT machine for diffusion lung tests.
- Sleep Diagnostic Testing lab: Department has a diagnostic sleep machine for polysomnographic studies along with a CPAP titration machine.
- The department possesses the state of the art adult High Frequency Oscillatory Ventilator SENSOR MEDICS 3100b.

- Transport Ventilator: Department is equipped with Drager Oxylog 3000 for transportation of the critically ill in intra- & inter hospitals.

## Highlights

- The Department of Respiratory Therapy (First in India) was started by Prof. Ramkumar Venkateswaran, a well-known Anesthesiologist in 1995 on the similar lines of the respiratory therapy programme offered at The College of Allied Health Professionals, Loma Linda University, California. The course curriculum was tailored to suit the Indian medical system.
- Department offered a twinning programme in 2005 in collaboration with California College of Health Sciences, Independence University, California. 30 alumni of the department took this opportunity to graduate as Associates of Science in Respiratory Therapy.
- The students are given exclusive training in different speciality clinics like Medical ICU, Neonatal ICU, Pediatric ICU, Neurology ICU, Cardiology ICU, Surgical ICU, triage, operating rooms and Pulmonology department.
- Faculty of the department has publications in reputed national and international medical journals.
- The Department has taken over the responsibility of releasing the first biannual journal of respiratory therapy 'Indian Journal of Respiratory Care' (IJRC), on behalf of Indian Association of Respiratory Care. The department also releases annual respiratory care magazine "Inspire" every year.
- The department conducts CMEs and workshops at regular basis and celebrates World Respiratory Care Week every year since 2005.
- The department has organized two National Conferences in association with Indian Association of Respiratory Care (IARC).
- The courses offered under the department are accredited by Indian Association of Respiratory Care (IARC)

## Career opportunities

Till date twenty batches of students have passed out from the department and are successfully placed in India and Overseas. Respiratory therapy is expected to remain one of the top profession for job growth and opportunities in coming years. The opportunities are expected to increase by almost 40 percent over a ten-year period. Respiratory therapist job opportunities are in super speciality hospitals, marketing, educational institutes and research

### Contact

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Phone: 0820-29-22386/22033



## Alumni Feedback



*"Being a Manipalite or to be precise a Scoahsian is something that I am proud off to tell people internationally. A Manipalite is accepted worldwide without any barriers. The Department of Respiratory Therapy has trained me well to be a Respiratory therapist as well as a good teacher in the super speciality medical field" He completed BSc RT and MSc RT at SOAHS, Manipal*

**Sanjay Sashikumar (UG 2006 Batch, PG 2011 Batch)**

Lecturer, Department of Respiratory Care, University of Dammam, Saudi Arabia



*When I see smile of gratitude in my patient's and relative's face, I feel I have taken the right choice to become Respiratory Therapist and I can do something for the mankind.*

**Ms Savitha Joseph (2002 Batch)**

Respiratory Therapist in Al Adan Hospital, Ministry of Health, Kuwait.



# DEPARTMENT OF MEDICAL IMAGING TECHNOLOGY

Medical imaging Technology is one of the advancing profession with excellent job prospects. It is committed to offer Diagnostic and Therapeutic Radiological service facilities and assist procedures such as Ultrasonography, Computerized Tomography (CTscan), Magnetic Resonance Imaging (MRI) and Digital Subtraction Angiography (DSA).

## COURSES OFFERED

### Bachelor of Science in Medical Imaging Technology (B.Sc. MIT)

The Graduate program is designed to mold professionals in Medical Imaging Technology who can handle different imaging modalities efficiently, perform different medical imaging examinations and assist interventional radiological procedures.

Duration: 3 years + 1year internship

Eligibility Criteria: 10+2 or equivalent (Physics, Chemistry and Biology), Minimum of 45%



Digital Subtraction Angiography

### Master of Science in Medical Imaging Technology (M.Sc. MIT)

This program is designed to upgrade Medical imaging Technologist in advanced medical imaging procedures to work as Radiology Managers and actively participate

in research activities in the dynamic field of Medical Imaging.

Duration: 2 years

Eligibility Criteria: B.Sc. MIT (3 years fulltime + 1 Year of Internship or 1 Year post B.Sc., MIT with work experience)

### Diploma in Medical Imaging Technology (DMIT)

Duration: 2 years

Eligibility Criteria: 10+2 or equivalent (Science)



GE prospeed helical CT scanner

## Clinical Facilities

The department is equipped with the following state of the art equipment for diagnostic and therapeutic Imaging services:

- 1.5 T Magnetic Resonance Imaging (MRI)
- Computed Tomography(CT): Single Slice Helical CT & MDCT-64 Slice
- Digital Radiography (Titan 2000 Dual)
- State of art Digital Fluoroscopy(ICONOS R 200)
- Digital Subtraction Angiography (DSA)- Allura X Per FD20
- Computerized Radiography (CR System)
- General Purpose X-ray Units
- Picture Archival and Communication System (PACS)
- Radiology Information System (RIS)



## Highlights

- Digital environment: Filmless Department
- 3rd Institute to start post graduate program in this field in the country.
- Recognized by HPC, UK
- IMS accreditation



MDCT - 64 slice

## Career Opportunities

- BSc.MIT Graduates have the opportunity to pursue Masters and can specialize in any of the Imaging modalities
- Graduates can work as Imaging Technologists in Hospitals with Radio diagnostic facilities both in public and private sectors.
- Graduates can join as an application specialist in Medical Imaging equipment companies such as GE Health care, Philips, Siemens, etc.

- Graduates can take up Teaching positions in Educational Institutions and can pursue research activities in Medical Imaging.

Contact:

Head of the Department

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School of Allied Health Sciences

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Excellent training programs for students

## Alumni Feedback



*Manipal University provides an excellent machinery setup for the Medical Imaging Sciences which helps us to grow professionally well utilizing them.*

**Albin Babu M Wilson (2009 Batch)**

Lecturer, Medical Imaging Sciences, Gulf Medical University, Ajman, United Arab Emirates



*I found the experience of being an Alumni of Manipal University was exceptionally good and it was a turning point of my entire carrier in the field of Medical Imaging Technology. Medical Imaging Faculty with a commendable knowledge on this field over here was really a great Team which can influence and Mold a student professionally and personally.*

*Clinical exposure which I experienced from Kasturba Medical college, Manipal was incomparable and this institution made me a strong and confident Medical Imaging Professional which helped me to contribute towards different areas like Research and Development activities in Philips Health care and Radiology Departments of Various Hospital around the globe.*

**Arjun PV (2010 Batch)**

Medical Imaging Technologist, NMC Hospital Dubai



*Enrolling in a master's program at Manipal University for MSc MIT was nothing less than a dream. I feel privileged to acclaim that I am an alumni of MU. As a student I worked in Kasturba hospital as an Imaging technologist in the department of medical imaging where I got enormous exposure to various state of the art technology. At Manipal, I matured in more ways than I knew I could. The university gives you more than just an education. It gives you freedom, responsibilities, guidance and many life lessons. If you are in thirst of knowledge, education & fun, Manipal University is the best place to go to!!!*

**Bibin Raveendran (2010 Batch)**

MRI Technologist, American Hospital, UAE



## DEPARTMENT OF NUCLEAR MEDICINE TECHNOLOGY

Nuclear Medicine Technology (NMT) is concerned with the diagnostic and therapeutic use of radionuclides in various benign and malignant disorders of the human body. Nuclear Medicine department carries out a wide range of procedures with the help of different radiation detectors, the most common being the Gamma Camera, and PET CT scanner. In addition to routine diagnostic and therapeutic work, personnel are also frequently involved in clinical trials work, Quality assurance and research. Nuclear Medicine technology is a constantly evolving and rewarding career and an integral part of a health care system.

### COURSES OFFERED

#### **BSc Nuclear Medicine Technology (B.Sc. NMT) + Post Graduate Diploma in Nuclear Medicine Technology (PGDNMT)**

It is a full-time, four years educational program that leads to a career in diagnostic and therapeutic nuclear medicine. During the program, students acquire academic knowledge, technical skills, and critical thinking experiences necessary to become proficient healthcare professionals. Participants put their scientific knowledge into practice, and are prepared in nuclear medicine procedures related to patient diagnosis and treatment. Qualified graduates work in Hospital set up as a part of Health care team or independently, in research area as assistants and in quality control departments. Academic job chances are also available to them.



Radiopharmacy Preparation

Duration: 4 years integrated

Eligibility: Pass in 10+2 with minimum of 45% marks (Science stream)

#### **Master of Science in Nuclear Medicine Technology (M.Sc. NMT)**

M.Sc. NMT curriculum has been tailored to provide motivated professionals having enhanced knowledge and skills with a better sense of accomplishment and increased self-confidence; they are also encouraged to take up teaching and do Ph.D. in Nuclear Medicine Technology as there is a dearth of teachers in this branch.

Duration: 2 years full time course

Eligibility: Candidates desiring admission to the M.Sc. in Nuclear Medicine should have passed on any one of the following courses - B.Sc in Nuclear Medicine (BNMT) with DNMT, DMRT (Diploma in Medical Radio Isotopes Technology), PG Diploma in Nuclear Medicine Technology, B.Sc.in Medical Imaging Technology, B.Sc. with Mathematics, Physics and Biology as major subjects.

#### **M.Sc. NMT Lateral Entry**

This course is specially designed for students who have a recognized post graduate diploma in Nuclear Medicine Technology (DMRT, PGDNMT etc)

Duration of the course is 1 year and they need to clear three papers of 1st year M.Sc. NMT along with the second year papers to be eligible for the award of the degree.



Dual head GE Infinia Hawkeye Gamma camera

## Clinical Facilities

The students are well trained in the state of the art facility of Kasturba Hospital, Manipal.

This Centre is well equipped with the most sophisticated instruments like Dual head SPECT-CT Gamma Camera, Spectrometer, G.M. counter, Uptake probe, Liquid Scintillation counter, RIA gamma counter and other RIA accessories, Electronic balance, Chromatography accessories, Dose Calibrator, Survey Meter, Contamination Monitor, Area Monitor, Microscopes, centrifuges... etc. Both undergraduate and postgraduate students are trained in technologies like imaging, non-imaging diagnostic nuclear medicine, nuclear physics practical work and therapy.



RIA Laboratory Work



Thyroid Uptake probe

## Career Opportunities

To work as AERB recognized technologists

To have a career in teaching

Contact:

Head of the Department

Department of Nuclear Medicine

School of Allied Health Sciences

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## Alumni Feedback



*My four years in Manipal University doing my Bachelors in Nuclear Medicine Technology was the best decision of my life. Manipal University has the best infrastructure any student could dream of, the well stocked libraries, the cafeteria and different avenues for entertainment. Nuclear Medicine faculties are well qualified and from them I have gained knowledge about the field as well as about the bigger lessons in life which equips you in your professional life. All in all I would say Manipal is the place to be in your student life.*

**Blessy Sara Philip (2004 Batch)**

Radiology Technologist- Nuclear Medicine, Hamad Medical Co-operation, Qatar





## DEPARTMENT OF RADIOTHERAPY & ONCOLOGY

Radiotherapy is a modality of treatment for persons with cancer. As a part of the radiation therapy team the medical physicists and radiation technologists are involved in clinical treatment planning process and responsible for the accurate delivery of radiotherapy to the cancer patient.

### COURSES OFFERED

#### Bachelors of Science in Medical Radiotherapy Technology (B.Sc. MRT)

The graduate programs educates and train students to become competent Radiotherapy Technologists and enable them to independently manage all the machineries available in the field of radio therapy and help Radiation Oncologists in the proper treatment of malignant diseases, with minimum radiation hazards and quality patient care.

Duration: 4 years (3+1 year internship)

Eligibility: 10+2 science/ Pre-University examination in science with 45% marks in Physics, Chemistry, and Mathematics as compulsory subjects with biology/statistics/computer science as optional subjects in English medium.

#### Master of science in Medical Radiation Physics M.Sc (MRP)

Medical Radiation Physics is a discipline concerned with Application of physical concepts and methods to the understanding of human body in health and disease. This course designed to produce post-graduates with specialized skills in Medical Radiation Physics, as applied to Radiotherapy, Radiology and Nuclear Medicine. The students are trained mainly in Physics of Radiotherapy and in Radiation Safety pertaining to Radiotherapy.

Duration: Two years (Four Semesters)

Eligibility: B.Sc with Physics as Major or B.Sc with Physics as one of the major subject from any University recognized by UGC in English Medium with 60% marks in aggregate of the subjects.

### Clinical Facilities

- Medical Linear Accelerator capable of delivering 3DCRT and IMRT
- HDR treatment unit for brachytherapy
- Varian Acuity conventional simulator for 2D imaging
- CT scanner for radiotherapy planning
- Contouring stations TOMOCON, Oncentra Masterplan.
- Radiation treatment planning systems like Precise Plan, Oncentra Master plan and Plato Sunrise for 3DCRT, IMRT and Brachytherapy.

### Highlights

- Atomic Energy Regulatory Board (AERB) has approved the syllabus of both M.Sc.MRP and B.Sc. MRT
- Experienced Medical Physics teaching faculty(>7years)
- Experienced Radiation Technologists(>15years)
- State- of- the- art technology



Medical Linear Accelerator

### Career opportunities

#### Radiation Technologist:

- Radiation Technologist/Radiographers in an University hospital setup/Hospital having Radiation oncology department.
- Application specialist in vendor firms
- Abroad opportunities

**Medical Physicist:**

- Medical Physics Faculty in an University/Teaching institution
- Application specialist in vendor firms
- Radiological Safety Officer only in a Hospital setup provided they possess clearance from regulatory body
- Radiological safety officer/ Medical Physicist/Health Physicist/Hospital Physicist/Radiological Physicist in a University hospital setup/Hospital having Radiation oncology department.
- Medical Physics consultant for/in a hospital setup.
- Higher studies abroad.



Conventional Simulator



Treatment Planning System



Immobilizing Devices

Contact:  
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 Department of Radiotherapy and Oncology  
 School of Allied Health Sciences  
 Manipal University, Manipal 576 104  
 Email: office.coahs@manipal.edu  
 Ph: +91 820 2922947 / 2922517

**Alumni Feedback**



*Manipal has got a very lively campus, very calm and relaxed environment which is perfect for students. It's also a perfect place to mingle with people from different cultures and background. Any high authority in the college is always accessible. Teachers are always very helpful and approachable. All our teachers have got clinical experience and it's very helpful when it comes to practical sides of the course. Department was equipped with all modern facilities and we were allowed to practice on those new technologies. College has got a very good library with many international references and online services. My life at Manipal was very colourful as well as focused.*

**Rachitha Antony**, 2006 batch  
 Medical Physicist in Peter MacCallum Cancer Centre, Australia



*The Manipal University campus can complete all the expectations of a student. The University library is one of the finest libraries i had ever seen in my life. As a student I really enjoyed my life in Manipal*

**Jincy Vincent**, 2008 batch  
 Radiotherapy Physicist in Sussex Cancer Center, Brighton, UK



## DEPARTMENT OF CARDIOVASCULAR TECHNOLOGY

In the field of medicine, the speciality of Cardiology has grown to such an extent that each cardiac disease needs to be diagnosed by highly skilled doctors with sophisticated equipment and trained technologists as a team. Cardiovascular technologists perform various procedures such as Electrocardiogram, Stress testing, Ambulatory ECG/BP monitoring, Cardiac ultrasound and invasively, cardiac pacing and assist cardiac intervention.

### COURSES OFFERED

#### Bachelors of Science in Cardiovascular Technology (B.Sc. CVT)

This course trains students in all diagnostic modalities of cardiology, especially performing and interpretation of Electrocardiogram, Treadmill Testing, Ambulatory ECG, BP monitoring, Cardiac Pacemaker programming and Interpretation, Echocardiography, (under supervision) assisting and hardware selection in Interventional cardiology like coronary angiography, angioplasty, device closure in

Duration: 3 years + 1 year compulsory Internship.

Eligibility: Pass in 10+2 with aggregate of 55% marks (PCMB).

#### MSc. Echocardiography

Masters degree in Echocardiography is a specialized field in Cardiology. The course offers vast knowledge in Echocardiography. The degree holders after completion are capable of performing and interpreting of all types of heart diseases independently. They are specially trained in three Dimensional Echo and newer Doppler modalities like Tissue Doppler, Strain and strain rate imaging.

Duration: Two years.

Eligibility: BSc. Cardio vascular Technology/cardiac care technology

Selection criteria: by Entrance test and viva-voce

#### M.Sc. Cardiac Catheterization and Interventional Technology

Interventional cardiology is a rapidly growing speciality. Currently congenital heart disease, Ischemic heart diseases, Valvular heart disease are mostly treated by cardiac Intervention. This specially redimizes thorough knowledge of hardware, techniques and procedural complications. The professionals are an integral part of the team compromising of Cardiologists, Technologists and Scrub nurses.

Duration: Two years.

Eligibility: BSc. Cardio vascular Technology/cardiac care technology/BSc. Nursing/BSc. Imaging

### Clinical Facilities

The department has six Echocardiography machines for clinical training purposes. Students are exposed to Clinical correlation and application of Echocardiography, severity assessment of valvular heart diseases, categorizing the congenital Heart Diseases for device closure, dyssnchrony analysis in dilated cardiomyopathy with LBBB and post CRT analysis etc. The department also has a modern digital cath lab. Undertakes all types of procedures like coronary intervention, peripheral intervention, device closure for congenital Heart disease, all types of cardiac pacemakers, cardiac resynchronization therapy, implantable cardioverterdefibrillator etc.

### Highlights

- Cardiac sonographers registration under Indian academy of Echocardiography.
- The course focuses mainly on two areas like Echocardiography and Cardiac catheterization/ Interventional Technology. After first two years the candidates have the option of choosing one of the above based on their academic performance.

Recent advances like Tissue Doppler imaging, 3dimensional imaging, and newer intervention technology



## Career opportunities

After successful completion students would find placement in superspeciality hospitals, cardiac centers & teaching institution

## Professional accreditation

Registration under Indian academy of Echocardiography.

Contact:  
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Manipal College of Allied Health Sciences  
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Ph: +91 820 2922704



Echocardiography (Heart Scan) by highly Sophisticated Mechinec

## Alumni Feedback



*"Excellent Knowledge center, very good and efficient teaching staff. The Department of BSc & MSc Cardiovascular Technology (CVT) at School of Allied Health Science is a Knowledge Hub. Lots of exposure to a variety of cases. They use all the Standardized tools and kits for evaluations and treatment Planning "*

**Priyanka Antony (2012 Batch)**

Cardiovascular Technologist, M.S. Ramaiah Narayana Hrudayalaya, Bangalore



*Yes, It always brings great pleasure and Proud when I talk about MU....As a former student I can promise to my juniors that once you are out from the Institute with the University certificate You can proudly step forward to your bright career with out any tension, You can face any Interview/exams .....it is sure that you will be the winner, And you will feel proud yourself with the good exposure which you got.....So be a part of Manipal and achieve the Goal.....*

**Soumya Jose (2010 Batch)**

Cardiovascular Technologist, Tawam Hospital, Al Ain, Abudhabi, UAE



## DEPARTMENT OF RENAL REPLACEMENT THERAPY & DIALYSIS TECHNOLOGY

### Introduction

The Nephrology department of KMC Manipal houses a state-of-the-art haemodialysis unit with trained dialysis nurses and technicians with 24-hour back up. The water purification systems include a reverse osmosis plant of international standards. The Centre has a dedicated haemodialysis facility for patients suffering from Hepatitis B. Recognised for performing renal transplants, it was the first department to provide this service in the region. The department also boasts of Plasmapheresis facility to facilitate plasma removal, which is required in certain neurological and autoimmune disorders.

Dialysis technology is a highly specialized field of nephrology (care of the kidneys).

Dialysis technology involves health care workers with a variety of job titles like Dialysis technologist, hemodialysis technician and renal dialysis technician. In clinical practice settings, dialysis technologists provide dialysis treatment. The dialysis technologist is responsible for all medical devices and equipment involved in renal replacement therapies such as reprocessing and water treatment equipment along with patient care and equipment operation, maintenance and repair.



Hemodialysis Monitoring

### Clinical facilities

- Hemodialysis unit with 22 machines
- CRRT facility
- CAPD facility
- Renal transplant unit
- Plasmapheresis and hemadsorption



Special procedure CRRT

### Course offered

#### **Bachelor of Science in Renal Replacement Therapy & Dialysis Technology (BSc RRT & DT)**

This course provides comprehensive training in the theoretical and technical aspects of dialysis and transplantation. The spectrum of renal replacement therapy ranging from Hemodialysis, Peritoneal dialysis, Critical care Dialysis/ Continuous renal replacement therapy and Renal Transplantation is covered with emphasis on technical aspects and patient care. Hands-on training is combined with didactic lectures and group teaching sessions. This course will equip the student with knowledge and skills of a high standard required in the modern renal unit.

Duration: 3 years + 1 year compulsory internship

Eligibility: Qualification: BSc.

Candidate should complete second year P U C with science preferably Biology, Physics and Chemistry from a reputed institution / any other equivalent course.

Candidate should have obtained an aggregate of at least 45% marks in Biology, Physics and Chemistry.

OR

Post P.U.C 3 year Diploma in Dialysis Therapy Course from a recognized Institution to be given one year exemption (one year internship) provided they pass a separate entrance exam.

Opportunities: The exponential increase in Chronic Kidney Disease globally has resulted in a rapid increase in demand for dialysis facilities and renal technicians and nurses. The job prospects for adequately trained renal technicians is promising both in India and abroad. Moreover, this graduate degree will open up prospects for further postgraduate studies in this ever widening field of health care.

### **Master of Science in Renal Replacement Therapy & Dialysis Technology (MSc RRT&DT)**

This course is the first of its kind in India and is specifically designed to produce postgraduates with special knowledge of the renal sciences and Renal Replacement Therapy(RRT) who will assist the Nephrologist and also take up teaching, training and research roles in the field of Nephrology, Dialysis and Transplantation. The curriculum builds on graduate level competencies in RRT and includes thorough coverage of the basic sciences as applied to Nephrology and RRT and also extends to training in research methodology, statistics and teaching skills. The course will equip the student with skills to train renal technicians, conduct research in kidney disease and RRT and perform a vital role in the modern renal unit.

Duration: 2 years

Eligibility for admissions: MSc.

Candidates desiring admission to the M.Sc in Renal Replacement Therapy and Dialysis Technology should have the following qualification

Candidate must have passed the B.Sc degree course in Dialysis Technology from a recognized institute and minimum one year working experience in the Department of Nephrology from the reputed institute (If not done one year internship, then two year experience is required).

OR

Candidates those who have completed two years dialysis technician course after B.Sc graduation (from a recognized University) and should have a minimum of three years experience in the department of Nephrology from reputed institute.

### **Career Opportunities**

With the increasing demand for renal technicians and nurses there is need to build a cadre of suitably qualified trainers and teachers in this field. Opportunities exist both in India and abroad for these specialized health care personnel not only in clinical Nephrology but also in academic Nephrology.

Contact:

Head of the Department  
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## DEPARTMENT OF CARDIOVASCULAR-THORACIC SURGERY

### Overview

The Cardiovascular & Thoracic Surgery Department at Manipal was established in 1961. In April 1970, it was the first center in Karnataka and the second in South India to perform open heart operations. Regular open heart surgery programmes, however, commenced from June 1978 with Dr. Pitambar Shatapathy, performing as the chief Cardiac surgeon. A three-year MCh course in the specialty was also started by Dr. Shatapathy in 1981 and 30 candidates have been successfully trained since then.

### Course offered

#### B.Sc. Perfusion Technology

Bachelor of Science in Perfusion Technology or B.Sc. (Perfusion Technology) is a three year graduate programme. Perfusion is defined as those functions necessary for the support, treatment, measurement, or supplementation of the cardiopulmonary and circulatory system of the patient. Course involves the study of physiology, pathology and associated equipment used to support and/or assume the function of the heart and/or lungs during medical procedures. The perfusion technologist prepares and operates the heart-lung machine and other sophisticated equipment as directed by healthcare physicians. The perfusionist utilizes technology such as heart/lung machines, ventricular assist devices and artificial hearts, as well as pharmacological interventions to maintain the patient during the period of circulatory support.

Duration: 3 years + 1 year compulsory internship

Eligibility: Pass in 10+ 2 with minimum of 55% marks (PCMB)

### Clinical Facilities

#### Operation Theatre

There are two dedicated ultra-modern operation theatres. Each operation theatre is equipped with laminar airflow, AC with Hepa-filter, high-tech operation table, anaesthesia machine, monitoring devices, OR lights, heart lung machine etc.

### CT-ICU

There is 6-bedded modern cardiac intensive care unit (ICU) with one to one nursing and equipped with all necessary sophisticated equipment and monitoring devices.

#### Step-Down ICU

8 bedded step down ICU for monitoring of stable patients during post-operative period.

### Clinical Activities

#### Types of Surgeries Performed

The Department carries both closed heart and open-heart operations and all minor and major thoracic and vascular surgeries. The common surgeries performed are:

#### Adults:

Valve repair/replacement Surgery, Coronary artery Bypass surgery, Beating Heart surgery, Redo CABG and Valve replacement surgery, Post infact VSD, Combined CABG with valve replacement surgery and closed heart surgeries like PDA ligation, Pericardectomy to name a few

#### Children:

ASD closure, VSD closure, TOF repairs and surgery for blue babies, PAPVD repairs, PDA ligations, Coarctation repairs

**General Thoracic Surgeries:** All types of lung resections including lobectomy, pneumonectomy and mediastinal tumor surgeries

#### Vascular Surgery:

Peripheral Vascular Bypass and Embolectomy, Aortofemoral and Femoropopliteal Bypass, Major vascular surgeries, Aortic Aneurysm, Dissections and Vascular Trauma

#### Cardiac Anaesthesia:

- Highly qualified and trained Cardiac Anaesthesiologist
- Latest techniques in cardiac anaesthesia
- Analgesia for painless postoperative care
- State of art anaesthesia machine
- Latest monitoring devices



Cardiac Surgery in progress

## Career Opportunities

A perfusionist, also known as a clinical Perfusionist or a cardiovascular Perfusionist, is a specialized healthcare professional who use the heart-lung machine during cardiac surgery and other surgeries that require cardiopulmonary bypass to manage the patient physiological status.

The Perfusionist is one of the highly trained member of the cardiothoracic surgical team which consists of cardiac surgeons, anesthesiologists, physician assistants, surgical technicians, and nurses. The perfusionist's main responsibility is to manage the physiological and

metabolic needs of the cardiac surgical patient so that the cardiac surgeon may operate on a still heart. This is accomplished through the utilization of the heart-lung machine, as well as its associated components of an oxygenator, filters, reservoirs and tubing. The Perfusionist is solely responsible for the management of circulatory and respiratory functions of the patient which has a great effect on the patient systemic condition and allows the cardiac surgeon to focus on the actual surgical procedure and less on the immediate needs of the patient. Other responsibilities include autologous blood collection and processing, implementation and management of the intra-aortic balloon pump, adult and infant extracorporeal membrane oxygenation (ECMO). In many tertiary hospitals, Perfusionist are also key personnel in placing and managing patients on ventricular assist devices as bridge to recovery or heart transplantation and supporting patients receiving lung or liver transplants. In certain hospitals, Perfusionist can be involved in procurement of cardiothoracic donor organs for transplantation.

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Cardiothoracic Operation Room

## Alumni Feedback



*My journey at Manipal brought me several key elements and skills along with absolutely fantastic and invaluable time, validating my decision to study at Manipal University. Perfusion Technology is combination of medicine and technology with tremendous amount of exposure. It is highly practical based program with immense amount of self-study. 'Aiding surgeon in cardiac surgery' fascinated me the most, along with boundless scope in research, influenced and affirmed my decision to become a perfusionist. As i would soon be ending my journey at Manipal i would say I'm proud and entirely satisfied to have been part of the SOAHS family.*

**Tanaya Desai (2012 Batch)**



## DEPARTMENT OF CLINICAL PSYCHOLOGY

Clinical Psychology discipline related services started at Kasturba Hospital, Manipal in 1974 and has seen tremendous growth in its course of 37 years. Over the years, its aims, objectives and priorities have grown keeping in mind the international trends. In order to facilitate further development, from the year 2000, the discipline was given the status of an independent department of Kasturba Medical College, Manipal. In 2010, the department became affiliated to School of Allied Health Sciences. The department functions in liaison with the Department of Psychiatry and other specialties.

Established within Kasturba Hospital, that has emerged as an internationally recognized healthcare institution providing tertiary care to patients, the M. Phil training program in Clinical Psychology at the department provides a unique blend of exposure, only available in a general hospital setting.

It aims to advance clinical psychology, both nationally and internationally, through a commitment to excellence in teaching, research and clinical leadership within the areas of psychology. The Department brings together its academic and clinical expertise to enhance the quality of mental and physical health service delivery, at both the clinical and the community level.

The department is recognised by the Rehabilitation Council of India the statutory body and nearly 100 students have successfully completed their M. Phil training and licensing. Since its inception, it has been catering to various specialised needs such as clinical services, teaching and research, in the area of mental health.

### Courses Offered

#### **M. Sc. Clinical Psychology**

Department of Clinical Psychology, School of Allied Health Sciences, Manipal University is the first of its kind to offer a Master's program in Clinical Psychology in a clinical setting.

Duration: 2 years (4 semesters)

Eligibility:

- Candidates who have obtained a Bachelor's Degree in Psychology or equivalent, with a minimum 55% marks in aggregate or equivalent grade point average.
- Students who have completed Bachelor's degree with Psychology as a core subject (completed minimum 60 hours or equivalent).

Selection of students: On the basis of performance in the written entrance test and interview, together with marks obtained in the qualifying degree examination

#### **M.Phil: M.Phil in Clinical Psychology**

Duration: 2 years

Eligibility : Indian Nationals

The candidates must have passed full time MA or M.Sc. Psychology from a recognized University with a minimum of 55% marks in aggregate in the master degree course as a whole.

### Clinical Facilities

The department is well equipped with all the latest assessment tools including diagnostic psychometry, personality assessment, neuropsychological assessment, sexual dysfunction assessment and intelligence testing. Recent additions include the latest treatment technology such as Neuro-biofeedback, Cognitive Retraining software. It is also the only department in India to have a computerized Rorschach Exner scoring system.

Department is offering the following clinical services...  
Psychotherapy; Behaviour Therapy; Hypnosis;



Profiling the strengths and weakness



Biofeedback; Neuropsychology & Assessment; Memory assessment; Family/Marital/Sex therapy; Personality assessment; IQ assessment; All type counselling

community mental health, government organizations, research projects and NGO's. Many alumni are working in middle- east and European countries.

### Highlights

The department is recognised by the Rehabilitation Council of India and nearly 125 students have successfully completed their M. Phil training and licensing

### Professional accreditation

Recognized by Rehabilitation Council of India

Contact:  
 Head of the Department.  
 Department of Clinical Psychology  
 School of Allied Health Sciences  
 Manipal University, Manipal-576104  
 Ph: +91 820 2933505  
 Email: psychology@manipal.edu

### Career opportunities

Opportunities available in the field of clinical psychology are wide and varied. Apart from clinical setting prospects are available in corporate sectors, school settings,



Understand your child: Parental counselling

## Alumni Feedback



*"I always wanted to be a clinical psychologist and I was under the impression that Clinical Psychology training is offered only in major mental hospitals. The clinical psychology training in the Department of Clinical psychology, Manipal hospital was new and different; and first of this kind in India!!!!"*

*Being based in a general hospital setting, I had the opportunity not only to upskill my therapeutic skills in primary mental disorders, but also a wide variety of psycho social problems within the context of physical disorders, depression, anxiety, stress-related and somatoform disorders.*

*Manipal training has not only provided me the opportunity to be a qualified clinical psychologist competent to deal with any mental illness, but it also helped me with the integrated personal growth in all areas of life".*

**Joseph Mathew (1998 Batch)**, Senior Clinical Psychologist  
 Goulburn Vally Area Mental Health, Monash St, Shepparton, VIC-3630, Australia  
 jocyin@yahoo.com joseph.mathew@gvhealth.org.au



*I joined the Department of Clinical Psychology at Kamala Nehru College at Manipal University, Manipal in 2007. The training and exposure were intense and were followed by accreditation and registration as a Clinical Psychologist with Rehabilitation Council of India. The reason I joined MU was that it was reputed and considered in the top three universities in India.*

**Bandna Rekhi (2007 Batch)**  
 Mental Health Advocacy Project Manager, Paiwand



# EXERCISE & SPORTS SCIENCES

Exercise and Sports Science is an interdisciplinary field that explores the complex nature of human movement and how the body responds to acute and chronic physical exertion such as general fitness regimens, recreational activities and elite sports. Exercise science encompasses many disciplines, but not limited to exercise physiology, movement analysis, training and conditioning and sport and exercise psychology. Sports science is a sub discipline that explores the factors influencing sport performance and strategies to improving it. There is a growing demand for exercise and sports scientists around the globe, particularly in India.

## Courses Offered

### MSc Exercise and Sports Sciences

India's skyrocketing prevalence of non-communicable diseases on one side and the performance of Indian sportsmen at the international arena on the other side is evidence enough that our country is in immediate need for exercise and sports science professionals. This program is a two year (four semesters) program designed to cater to the need of exercise and sports science professionals in our country and across the globe. The mission of this program is to provide education that would enhance health, quality of life and sports performance by discovering and applying the knowledge pertaining to human movement.

On completion, graduates will have competencies in performing, physiological performance assessment, movement / biomechanical analysis of sports motion, training and conditioning athletes, rehabilitation of sports injuries and manage a fitness/wellness facility.

Duration: 2 years (4 semesters)

Eligibility: Graduates in Physiotherapy, Occupational Therapy, and Exercise / Sports Science

Facilities: State of the Art infrastructure for sports and exercise in MARENA, a 1,42,042 sq.ft, six storeyed centrally air conditioned sports complex. Comprehensively equipped laboratory facilities for motion analysis and physiological performance measurement.

## Highlights

The institute attracts many athletes (national and international) for a comprehensive rehabilitation following sports injuries and return to sport

Multi-disciplinary environment at Manipal University

Externship at India's top sporting organizations during the final semester which can open up future employment

## Career Opportunities

Exercise and sports science professionals have a varied scope of practice as an exercise/sport physiologist, movement analysts/ biomechanists, trainers in sports medicine centers corporate fitness/wellness industries and occupational health, conditioning specialists in professional sports organizations, sports science administrators/faculty and as scientists involved in research pertaining to health and human performance.

Contact:

Course Co-ordinator: Dr. Fiddy Davis, Associate Professor and Program Coordinator, School of Allied Health Sciences, Manipal University, Manipal.

Mobile: +91 94482 52299

Email: fiddy.davis@manipal.edu

## Testimonials



"I was delighted to know that School of Allied Health Sciences at Manipal University is offering a master degree in exercise and sports science. I am presently at Manipal University for rehabilitation following ACL reconstruction. The facilities for sport and exercise, along with a dedicated faculty, make Manipal University an ideal place for a career centric professional course like this to start. At present there is a serious dearth in sports science professionals in India, I sincerely hope that this course will cater to the need."

Olympian Diju Valiyaveetil  
Indian Badminton Player





## EXTRA CURRICULAR ACTIVITY







#### AIR

The nearest airport is about 70 Kms away at Mangalore. Indian Airlines, Kingfisher and Jet Airways operate daily flights to Mangalore from Mumbai, Chennai and Bangalore. The drive from Mangalore airport to Manipal takes approximately 90 minutes. Prepaid taxis are available at the airport.

#### RAIL

The nearest railway station is Udupi (4 kms), on the Konkan Railways line. Trains from Mumbai to Mangalore and Trivandrum stop at Udupi. Mangalore railway station is 70 kms from Manipal. Mangalore is connected by rail to Bangalore, Chennai, Mumbai, Thiruvananthapuram and all major cities daily.

#### ROAD

Manipal is just off the National Highway (NH66), connecting Goa and Mangalore. It is also well connected by road to Bangalore via Mangalore. Regular, efficient bus services operate between Mumbai, Goa, Bangalore, Mangalore and Manipal.

Birth day celebration in Orphanage



Children Day celebration in Hospital



Clean Manipal Campaign



Cloth Distribution Drive



Paediatric ward visit



Paediatric ward visit



Play time in orphanage



Sports day in orphanage



Sports day in orphanage



Sparsh-a fund raising event



Gili gili magic at Sparsh



Health Camp

