

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

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REGULATIONS

M.Sc. TELEMEDICINE

ACADEMIC YEAR 2024 – 2025

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI – 32.

REGULATIONS

M.Sc. TELEMEDICINE

(Post-Graduate Degree Courses under Allied Health Sciences)

In exercise of the powers conferred by Section 44 of the Tamil Nadu Dr. M.G.R. Medical University, Chennai Act 1987 (Tamil Nadu Act 37 of 1987) the Standing Academic Board of the Tamil Nadu Dr. M.G.R. Medical university, Chennai hereby makes the following regulations:-

SHORT TITLE AND COMMENCEMENT

These regulations shall be called as “POST GRADUATE COURSE IN M.Sc. TELEMEDICINE of the Tamil Nadu Dr. M.G.R. Medical University, Chennai

They shall come into force from the academic year 2024-2025.

The regulations framed are subjected to modification from time to time by the Standing Academic Board.

OVER ALL OBJECTIVES

1. Understand Telemedicine Fundamentals:

- Equip students with comprehensive knowledge of telemedicine systems and remote healthcare delivery methodologies.
- Train students in teleconsultation, remote diagnostics, and telemonitoring technologies.

2. Develop Technical Expertise:

- Provide practical knowledge on operating telemedicine platforms and medical devices for remote patient care.

- Familiarize students with video conferencing tools, wearable health monitoring devices, and mobile health applications.
3. **Master Healthcare Data Management:**
 - Train students in managing digital health records and integrating telemedicine platforms with electronic health record (EHR) systems.
 - Educate students on securely transmitting and storing patient data using telemedicine systems.
 4. **Address Ethical and Legal Aspects:**
 - Teach students the ethical responsibilities and legal frameworks surrounding telemedicine, ensuring patient privacy and data security.
 - Instruct students on compliance with telemedicine regulations and healthcare laws (e.g., HIPAA).
 5. **Innovate in Remote Healthcare Solutions:**
 - Encourage students to research and develop new telemedicine tools and applications that can improve healthcare access, particularly in rural and underserved regions.
 - Support the integration of artificial intelligence (AI) and data analytics in telemedicine to enhance patient care.
 6. **Foster Multidisciplinary Collaboration:**
 - Train students to work effectively with healthcare professionals, IT experts, and policymakers to implement telemedicine solutions in healthcare systems.

Learning Outcomes

By the end of this course, students will be able to:

1. Understand the foundational concepts and technologies in digital health and telemedicine.
2. Analyze the impact of digital health on patient care and healthcare systems.
3. Evaluate ethical and legal considerations in the implementation of digital health solutions.

4. Design and propose innovative digital health interventions tailored to specific populations.
5. Stay informed about emerging trends and future directions in the field of digital health.
6. Develop concepts and present them as dissertation for final assessment

Course Overview

The MSc in Telemedicine offered by Tamil Nadu Dr. M.G.R. Medical University aims to equip students with comprehensive knowledge and skills in telehealth and digital healthcare technologies. This can be either an in-person or can be designed in hybrid form with contact session at the university. It should be designed to provide basic science students with a comprehensive understanding of digital health and telemedicine. The curriculum will cover foundational concepts, technologies, applications, and ethical considerations in the field. Students should engage in practical sessions, case studies, and assessments to reinforce their learning.

The MSc in Telemedicine equips healthcare professionals and IT specialists with the expertise to deliver healthcare using cutting-edge technology, enabling them to bridge the gap between patients and care providers, especially in remote and underserved areas.

SCOPE OF M.Sc. TELEMEDICINE

The M.Sc. in Telemedicine offers diverse career opportunities in the healthcare, IT, and public health sectors. Graduates can pursue careers in:

1. Telemedicine Consulting:

- Design and manage telemedicine programs in hospitals, clinics, and healthcare organizations.
- Support healthcare professionals in using teleconsultation and telemonitoring tools.

2. Healthcare Technology:

- Develop and implement telemedicine platforms, wearable health technologies, and remote diagnostic systems.
- Work in healthcare IT roles focusing on integrating telemedicine with hospital information systems.

3. **Public Health:**

- Implement telemedicine solutions in public health programs to improve healthcare access in rural and underserved areas.
- Use telemedicine for large-scale screenings, chronic disease management, and remote patient monitoring.

4. **Regulation and Policy:**

- Advise healthcare organizations on regulatory compliance and ethical practices in telemedicine.
- Contribute to policy development for telemedicine guidelines and standards.

PHILOSOPHY

- To develop healthcare professionals with expertise in using telemedicine technology to deliver quality healthcare remotely
- M.Sc Telemedicine emphasizes application of relevant theories into practice, education, administration and development of research skills.

M.Sc Telemedicine is bridge the gap between healthcare providers and patients through innovative telecommunication systems, enabling real-time consultations, diagnostics, and treatment

- The curriculum will cover foundational concepts, technologies, applications, and ethical considerations in the field. Students should engage in practical sessions, case studies, and assessments to reinforce their learning
- The M.Sc. in Telemedicine typically comprises both core and elective subjects. Students are also required to complete a research project and/or internship in a healthcare or telemedicine setting.

AIM

The M.Sc. in Telemedicine aims to develop healthcare professionals with expertise in using telemedicine technology to deliver quality healthcare remotely. The program seeks to bridge the gap between healthcare providers and patients through innovative telecommunication systems, enabling real-time consultations, diagnostics, and treatment.

GUIDELINES AND MINIMUM REQUIREMENTS TO START M.Sc. TELEMEDICINE

Any Undergraduate / Postgraduate in Medical, Dental, AYUSH & Super Speciality, Paramedical, and Allied Health Sciences to start M.Sc. Telemedicine programme. The Tamil Nadu Dr. M.G.R Medical University on receipt of the proposal from the Institution to start M.Sc. Telemedicine will undertake the first inspection to assess suitability with regard to physical infrastructure, clinical facility and teaching faculty in order to give permission to start the programme.

Institution will admit the students only after taking approval from The Tamil Nadu Dr. M.G.R Medical University.

ELIGIBILITY FOR ADMISSION:

The Minimum qualification for admission into M.Sc. Telemedicine will be any Undergraduate / Postgraduate in Medical, Dental, AYUSH & Super Speciality, Paramedical, and Allied Health Sciences with the minimum of 50% aggregate mark.

ELIGIBILITY CERTIFICATE:

Candidates who have passed any qualifying examination as stated in above other than the Tamil Nadu Dr. M.G.R. Medical University shall obtain an “Eligibility Certificate” from this University by remitting the prescribed fees along with the application form and required documents before seeking admission to any one of

the affiliated institutions. The application form is available in the University website: web.tnmgrmu.ac.in.

AGE LIMIT FOR ADMISSION

A candidate should have completed the age of 22 years at the time of admission.

REGISTRATION

A candidate admitted to M.Sc. Telemedicine course under Allied Health Sciences in any one of the affiliated institutions of this University shall register his/her name with this University by submitting the prescribed application form for registration duly filled, along with the prescribed fee and a declaration in the format to the Academic Officer of this University through the affiliated Institution within 30 days from the cutoff date prescribed for the course for admission. The application should have the date of admission of the course.

COMMENCEMENT OF THE COURSE:

The course shall commence from **1st September** of the Academic Year.

MEDIUM OF INSTRUCTION

English shall be the Medium of Instruction for all the Subjects of study and for examinations of the M.Sc. Telemedicine Course under Allied Health Sciences.

CURRICULUM

The curriculum and the syllabus for the course shall be prescribed in these regulations and are subject to modifications by the Standing Academic Board from time to time.

DURATION OF THE COURSE

The duration of certified study for the M.Sc. Telemedicine under Allied Health Sciences course shall **extend over a period of TWO academic years**.

The candidate should complete this course in **4 years (double the duration)** from the date of joining the course.

WORKING DAYS IN THE ACADEMIC YEAR

Each Academic year shall consist of not less than 270 Working Days.

ATTENDANCE REQUIRED FOR ADMISSIONS TO APPEAR FOR EXAMINATION

- 80% attendance in Theory, 80% Practical & 80% Dissertation / Project is mandate and IA also mandatory.
 - No candidate shall be permitted to appear in any one of the parts of M.Sc. Telemedicine course under Allied Health Sciences Examinations unless he/she has attended the course in the subject for the prescribed period in an affiliated institution recognized by this University and produce the necessary certificate of Study, attendance and satisfactory conduct from the Head of the Institution.
 - A Candidate is required to put in a minimum of *80% of attendance out of 270 working days in both theory and practical separately in each subject before admission to the examination except for 1 year candidates where attendance will be counted from the date of joining. The academic year should consist of not less than 270 working days.

CONDONATION OF LACK OF ATTENDANCE

There shall be no condonation of lack of attendance.

MIGRATION/TRANSFER OF CANDIDATE:

- a) A student studying in “M.Sc. M.Sc. TELEMEDICINE” can be allowed to migrate / transfer to another institution of Allied Health Science under the same University.
- b) Migration / Transfer can be allowed to another affiliated institutions under extraordinary circumstances.

The Vice Chancellor has the power to issue Migration / Transfer order.

RE-ADMISSION AFTER BREAK OF STUDY

The regulations for re-admission are as per the University Common Regulation and Re-admission after Break of Study for all courses.

VACATION

There is no vacation

CUT-OFF DATES FOR ADMISSION TO EXAMINATION

- **31st October** of the Academic Year concerned
- The candidates admitted up to 30th September of the Academic Year shall be registered to take up 1st year examination during October of the next year.
- All kinds of admission shall be completed on or before 30th September of the Academic year.
- There shall not be any admission after 30th September even if seats are vacant

REVALUATION / RETOTALING OF ANSWER PAPERS

Revaluation/Re-totaling of answer papers is not permitted

INTERNAL ASSESSMENT MARK

The Internal Assessment should consist of the following points for evaluation

- Theory
- Practical/Clinical

Note

- A minimum of two written examinations shall be conducted in each subject during a year and the average marks of the three performances shall be taken into consideration for the award of Internal Assessment marks
- A minimum of one practical examination shall be conducted in each subject (wherever practical has been included in the curriculum) and grades of ongoing clinical evaluation to be considered for the award of Internal Assessment Marks.

Classification of results

- 50% pass in each of the theory and practical separately.

- If the candidate fails in either practical's or theory paper he/she has to reappear for both the papers (theory and practical)
- The candidate should complete this course in 4 years (double the duration) from the date of joining the course.
- Candidate, who fails in any subject, shall be permitted to continue the studies into the second year.

However the candidate shall not be allowed to appear for the final year examination till such time that he/she passes all subjects of the first year M.Sc Telemedicine examination.

- Minimum pass marks shall be 50 % in each of the Theory and practical papers separately.
- A candidate must have minimum of 80% attendance (irrespective of the kind of absence) in theory and practical in each subject for appearing for examination.
- A candidate has to pass in theory and practical exam separately in each of the paper.
- If a candidate fails in either theory or practical paper he/she has to re-appear for both the papers (Theory and practical).
- All practical examinations must be held in the respective clinical areas.
- One internal and One external examiners should jointly conduct practical examination for each student
- One internal and One external examiners should evaluate Dissertation and jointly conduct viva-voce for each student.
- For Dissertation Internal examiner should be the guide and External examiner should be the Faculty of Telemedicine.
- The topic of the Dissertation should be submitted at the end of the first year of the course. The candidate should also inform the name of the guide for the

Dissertation to the University while submitting the topic. If there are changes in the topic, the same has to be informed six months prior to the final year examination. The Dissertation should be submitted duly signed by the HOD and the same has to be forwarded to the Controller of Examination through the Head of the Institution two months prior to the Examination.

- If the Dissertation is not approved (Failed), the results shall be withheld till the resubmitted Dissertation is approved (Passed).
- If the candidate fails in the Written / Practical Examination, but his / her Dissertation is approved (Passed), the approval of the Dissertation shall be carried over to the subsequent examination.

Logbook:

Each student should maintain a log book and record the procedures they do / observe. This will include the seminars that they presented, and conferences attended. The same will have to be countersigned by their supervisor. It must be assessed by the HOD and submitted at the time of discussion of project in the practical examination.

CARRY OVER OF FAILED SUBJECTS

- A candidate has to pass in theory and practical examinations separately in each of the paper.
- If a candidate fails in either theory or practical examination, he /she has to reappear for both (theory and practical)
- The candidate has to successfully complete the course in double the duration of the course (i.e. 4years from date of joining)

NUMBER OF EXAMINERS

One Internal and One External examiner should jointly conduct practical/oral examination for each student.

SCHEME OF EXAMINATION

FIRST YEAR

Paper	Subject	Internal Assessment		Theory	
		Max	Min	Max	Min
I	Fundamentals of digital Health including Telemedicine	50	25	100	50
II	Data Management	50	25	100	50
III	Application of digital Health for Chronic Disease Management including Rural & Under served areas.	50	25	100	50
IV	Education and Research including Augmented Reality & Virtual Reality	50	25	100	50

SECOND YEAR

Paper	Subject	Internal Assessment		Theory	
		Max	Min	Max	Min
I	Mental Health	50	25	100	50
II	Ethical & Legal aspects of Digital Health	50	25	100	50
III	Artificial Intelligence & Emerging Technologies in Digital Health	50	25	100	50

PRACTICAL / VIVA

(Connectivity, Wearable and Remote Monitoring devices)	Internal Assessment		Practical		Viva	
	Max	Min	Max	Min	Max	Min
	50	25	100	50	50	25

Project	Max	Min
Project	100	50
Viva / Practical	100	50
I. A	50	25
Total	250	125

- If the candidate fails in one Theory paper he/she needs to write only the respective the Theory paper. In case, the theory paper has practical and the candidate fails only in that practical he/she needs to write both theory and practical again and vice versa.
- The candidate has to pass all the first year papers before he/she enters the second year.
- Double the Duration rule will be followed.
- Dissertation / Project needs to be submitted before starting of theory examination.
 - a) There are few courses which have to submit project at a fee of Rs.1000/-. This can be changes or modified as Dissertation after placing it in the respective expert committee and Examination Reforms Committee.
 - b) It is also recommended to address the issue of Question Paper setters and Evaluators for all the new courses which have been recommended now and the data can be obtained from the Experts themselves.
 - c) To provide copy of the evaluated answer sheets along with marks as per mark statement to the students on request. Accordingly, the photo copy of

the answer scripts will be provided with distribution of marks for each answer, to the failed candidates.
