

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

69, ANNA SALAI, GUINDY, CHENNAI - 600 032.



REGULATIONS

M.Sc. CARDIAC RHYTHM MANAGEMENT AND ELECTRO PHYSIOLOGY

ACADEMIC YEAR 2024 – 2025

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

REGULATIONS

M.Sc. CARDIAC RHYTHM MANAGEMENT AND ELECTRO PHYSIOLOGY

(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. CARDIAC RHYTHM MANAGEMENT AND ELECTROPHYSIOLOGY** 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.

OBJECTIVES

To Assist the Cardiologists in providing high quality Cardiac Care In Government and Private Institutions affiliated with this University.

SCOPE

Demand exist In the society of Echo cardio Companies, Hospitals Both Government and Private teaching institutions in nature.

AIM

To train a Group of Interested and Committed Individuals to assist in specific areas of Cardiac Rhythm Management and Electrophysiology to cater to the increasing burden of Cardiovascular Diseases.

GUIDELINES AND MINIMUM REQUIREMENTS

The Tamil Nadu Dr. M.G.R Medical University on receipt of the proposal from the Institution to start M.Sc. Cardiac Rhythm Management and Electrophysiology 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.

The Institutions are permitted to take maximum of 2-5 students of M.Sc. Cardiac Rhythm Management and Electrophysiology (Course Director: Student 1:2-5).

ELIGIBILITY FOR ADMISSION:

- 1. B.Sc.in Cardiac Technology**
- 2. Any B.Sc in Life science with Diploma in Cardiac Technology with 1 year experience in a recognized Cardiac Electrophysiology set up/lab.**
- 3. B.Sc. in Nursing with 1 year experience in a recognized Cardiac Electrophysiology set up / lab.**
- 4. B.Sc. in Radiology and Imaging Technology (3 years course) with 1 year experience in a recognized Cardiac Electrophysiology set up/ lab.**

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. Cardiac Rhythm Management and Electrophysiology 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. Cardiac Rhythm Management and Electrophysiology 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. Cardiac Rhythm Management and Electrophysiology 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. Cardiac Rhythm Management and Electrophysiology 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. CARDIAC RHYTHM MANAGEMENT AND ELECTROPHYSIOLOGY” can be allowed to migrate / transfer to another institution of Allied Health Science under the same University.
- b) Migration / Transfer can be allowed to other affiliated institution 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 will be held during October of the subsequent / 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

A minimum of three 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.

Marks qualifying for pass:

50% of marks in the University Theory Examinations

50% of marks in the Practical with Viva

50% of marks in aggregate in Theory, IA and oral taken together

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 practicals 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 Cardiac Rhythm Management and Electrophysiology 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 examiner should jointly conduct practical examination for each student
- One internal and one external examiner 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 Cardiac Rhythm Management and Electrophysiology.
- 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:

S.No.	Subject title	Internal Assessment		Theory	
		Max.	Min.	Max.	Min.
1	Cardiac Anatomy, Pathology & Microbiology in relation to Sterilization	50	25	100	50
2	Cardiac Physiology, Electronics, Radiation protection, Health physics	50	25	100	50
3	Cardiac Pharmacology in relation to Anti-arrythmias & Cardiac Genetics	50	25	100	50
4	EIG & Cardio Pulmonary Resuscitation CPR	50	25	100	50

Second year:

S.No.	Subject title	Internal Assessment		Theory	
		Max.	Min.	Max.	Min.
1	Cardiac Arrythmias and Investigation Modalities	50	25	100	50
2	Cardiac device therapy	50	25	100	50
3	Cardiac arrhythmias, Manoeuvres in the EP lab	50	25	100	50

Practicals in Second year Syllabus

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
Internal Assessment	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.
