

# **Mahatma Gandhi University**

Priyadarsini Hills P.O., Kottayam, Kerala - 686 560

(Established by Kerala State Legislature by Notification No. 3431/Leg. C1/85/Law, dated 17th April 1985)

34030/AC A12-1/2022/AC A 12

30.03.2022

#### **NOTIFICATION**

Applications are invited for M. Tech Programme in Advanced Polymeric Materials conducted in the International and Inter University Center for Nanoscience and Nanotechnology (IIUCNN) for the academic year 2022-23.

i) <u>How to Apply</u>: Only online mode of application is there to apply for the Entrance Test (CAT- MGU 2022) and to register options for admission to the various academic programmes in different teaching departments. Candidates need to register only one application for maximum of four different programmes. However, the candidate need to pay separate application fee for different programmes. If a candidate submits more than one online application, his/her candidature is liable to be cancelled.

#### ii) Eligibilty

i. MSc in Nanoscience and Nanotechnology, Physics, Chemistry, Material Science, Polymer science or an equivalent degree with not less than 50% Marks

Or

ii. B.Tech in Polymer Engineering/Technology or Nanoscience and Nanotechnology or Chemical Engineering/ Technology or Electronics and Communication or Biotechnology or Materials Science or Mechanical, an equivalent degree with not less than 50%

# iii) Number of Intake

General Seats: 10

International Students: 02

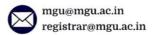
#### iV) <u>Duration of the course</u>

The course shall extend over a period of two academic years consisting of four semesters.

# V) Admission

Admission shall be normally restricted to those with valid GATE score on merit basis. In case, seats remain vacant due to lack of candidates with GATE score, candidates will be considered on the basis of an entrance test.







#### Vii ) CAT- MGU 2022-23: TENTATIVE SCHEDULE

Online Registration of application	05-04-2022 Onwards
Last Date of Online Submission of Application	25-04-2022
Final confirmation of Application	26-04-2022
Downloading of Hall ticket	17-05-2022
Entrance Examination	28-05-2022, 29-05-2022
Entrance Result	21-06-2022
Interview/G.D/Written Test	Date will be announced by department concerned
Rank List & Admission	Date will be announced later
Commencement of Classes	Date will be announced later

# Viii) Entrance Test Centre

There will be test centres in Thiruvananthapuram, Kottayam, Ernakulam, Kozhikode and Kannur. The applicants can opt a maximum of 3 centres on a preferential basis. However the centres opted by an applicant is only his/her options, actual centre will be allotted by Mahatma Gandhi University which will be final. In most cases the centre opted by the applicant will be allotted. But the University may allot a different Centre either due to preponderance or shortage of applicant. In such cases candidates can either choose the centre allotted by the university or can claim refund of application fee.

#### iX ) Examination date and Time

29.05.2022, 10.00 a.m - 12.00 Noon

### **Registration fee:**

For General candidates (Including All India Quota Candidates): Rs. 1100/- (Rupees One thousand and one hundred only)

For SC/ST candidates: Rs. 550/-(Rupees Five hundred and fifty only)

**For International Students**: US\$ 100 (Equivalent Indian Rupees on the date of payment)

# X) Entrance Test Syllabus

**Basics of polymer**: Types of polymers, Techniques of polymerization, Types of copolymers, Concept of reactivity ratio, Natural polymers, Addition and condensation polymer, Polymer alloys and blends, Properties of commodity and engineering polymers,

Thermosetting polymers and their applications, Elastomers, TPEs rubber technology, plastics technology, Processing of polymers, Testing and characterisation of polymers, speciality polymers, Additives for polymers.

**Basics of Material Science** - Nature and Properties of Materials, Physics of Materials, Mechanical Behaviour of Materials, Phase Equilibrium in Materials, Heat Treatment of Metals, Corrosion and Degradation of Materials, Materials Characterization, Quantum dots

**Basics of Nanoscience and nanotechnology** – Basics of nanoscience and nanotechnology, chemical synthesis of nanomaterials, Top-down techniques, Semiconductor nanoparticles, Organic nanoparticles, polymer nanocomposites, nanotechnology for biomedical applications

**Basics of Biotechnology** - Introductory Biological Chemistry, Animal and Plant Physiology, Recombinant DNA Technology, DNA Typing, Proteomics and Beyond, Biodiversity and Taxonomy, Microbiology and Macromolecule, Biostatistics.

**Basics of Electronics and communication**: Basic Concepts in Electrical Engineering, Kirchhoff's laws, Magnetic circuits, DC machines, Three phase circuits, Transformers, three phase induction motor, Amplifiers and oscillators

# Xi ) General Instructions

- 1. Candidates will be notified to submit the certificates within the stipulated date and those who fail to comply with this will not be considered in the admission process.
- 2. If a candidate fails to report for counselling on the specified date, his/her claim for selection will not be considered anymore.
- 3. The selection of candidates will be provisional and subject to the verification of original documents.
- 4. Those who are awaiting final semester results of qualifying exam can also apply provided that they should produce certificates and marklists of qualifying examination before the closing date of admission.
- 5. The University will not send any individual communication to the applicants regarding the time allotted for downloading the halltickets, entrance examination dates etc. All such information will be published on the CAT website and print media. So candidates are advised to go through the website www.cat.mgu.ac.in regularly or keep in contact with the helpline number provided.

# Xii) Fee Structure for the M.Tech Programme in Advanced Polymeric Materials

Item	Amount	Remarks
Tuition fee**	25000	Per Semester

Admission Fee*	500		
Lab Fee**	15000	Per Semester	
Caution Deposit*	1500		
Library Caution Deposit*	1000		
Library Fee*	1500		
ID card *	100		
Stationary Fee**	800		
University Union Fee***	55	Per Semester	
University Dept Student Fee***	55		
Medical Inspection Fee***	5	800	
Sports Affiliation Fee***	315	80	
Student Welfare fund***	50	Go	
Students Safety Insurance Fund ***	100		
Quasi University Fee *	10		
Magazine Fee***	30	(0)	
Calendar Fee**	35	(5)	
Audio visual Fee**	500		
Student Affiliation Fee*	750		
Journal Fee***	300		
Department development Fund **	500		
Student Aid fund **	265		
Matriculation Fee *	250		

<sup>\*</sup> At the time of admission

# Xiii) For more details

Phone: 0481 27 33 595 Email : cat@mgu.ac.in

# Dr. Prakash Kumar B Registrar

# То

- 1. The H.O.D (International and Inter University Center for Nanoscience and Nanotechnology (IIUCNN))
- 2. PS to VC/PVC
- 3. PA to Registrar/FO/CE

<sup>\*\*</sup> Per Semester

<sup>\*\*\*</sup> Per Year

- 4. JR 2(Admn)/DR 2(Acad)/AR 4 (Acad.)
- 5. Content Management Section. (For Publishing the notification on the University Website)
- 6. PRO (For issuing press release)
- 7. IT Cell (To make necessary changes as per notification on the CAT website )
- 8. ACA 1 / ACA5 / ACA 12 / CSS Sections
- 9. Stock file/File copy