

## **1. Eligibility Criteria**

### **Eligibility Criteria for Admission into PhD Program of MIT School of Bioengineering Sciences & Research**

Candidates from science and technology background seeking admission to the Ph.D. Program, whether full time or part time, shall have to possess requisite percentage of marks / grade point average in qualifying examination as indicated below:

For candidates with MSc qualification:

1. The required minimum qualification for admission to a Ph.D Program shall normally be a two years Master's or M.Phil Degree from any accredited Indian or Foreign University in the relevant field. She/he must have obtained either a minimum of 60% marks or Equivalent Grade in the M.Phil degree or in the Master's Degree (for all disciplines except Engineering and Technology). In addition, overall 60% at all academic levels will be desirable.

For candidates with MTech/BTech qualification

2. Applicants with M. Tech / BTech / M.E./M.S. qualification in relevant disciplines with excellent academic record with minimum CGPA of 6.0 on a 10 point scale or equivalent or 60% marks and with 60% aggregate in X<sup>th</sup>, XII<sup>th</sup> and B.Tech /B.E. will be considered eligible for admission in Ph.D. Programs in Engineering and Technology.
3. Applicants with M.B.B.S./BDS degree or equivalent in relevant discipline with excellent academic record with minimum CGPA of 5.5 on a 10 point scale or equivalent or 55% marks may be considered eligible for admission to Ph.D. Programs in the relevant field.
4. Foreign/ NRI applicants / Applicants with a Masters' degree from a foreign university must apply with an equivalence certificate of AIU along with the Online Application Form

### **Exemption from Written Examination**

Candidates who have cleared an All India Examination or NET of UGC / CSIR / ICAR (ASRB) / GPAT / ICMR / GATE/ BINC in the last 2 years shall be exempted from the written part of the selection process. However, they will be required to appear for the Personal Interview.

## **2. Duration of the Programme**

Ph.D. programme shall be for a minimum duration of three years, including course work and a maximum of six years.

## **3. Modes of Ph.D. Programme**

- A candidate shall take admission to Ph. D. programme in Bioengineering School either in **Full Time** OR in **Part Time** mode.
- **Full Time Students:** Full time students will have to work from the MIT School of Bioengineering Sciences & Research at MIT ADT University. Any fellowship holder will be treated as sponsored registrants or else candidate might take their admission as

self-sponsored registrants under this category. Self-sponsored full time students who are employed in some Institute/ Organization should have been granted leave for a minimum period of 3 years.

- **Part Time Students:** This can include “Internal” Registrant (Faculty/ Staff of University) and Registrants from other Institute/Industry/ Organization. They should visit the School of Bioengineering Sciences and Research as per the requirement of the Ph.D. Programme. They should be physically stationed with the research guide for at least six months during the PhD program. Part-time candidate should submit a No Objection Certificate (NOC) in a prescribed format (**Appendix 1**) at the time of Ph.D. application/ admission. It is to be noted that these candidates will also have to complete the Pre PhD courses assigned by the MIT University to be eligible for full PhD registration.

#### **4. Areas offered for Ph.D. in Bioengineering**

The MIT school of Bioengineering, a constituent unit of MIT ADT University will offer PhD in any of the following three general specializations or related fields therein:

##### **I. Biotechnology**

- Microbiology
- Molecular Biology
- Genomics
- Proteomics
- Enzymology
- Nanobiotechnology
- Pharmacology
- Tissue Engineering

##### **II. Bioinformatics**

- Drug Design
- Protein Modelling
- Database design and development
- Artificial Intelligence and Machine Learning
- Data mining and Text mining
- Reaction Modeling
- Voice and Image Processing
- Software design and development

##### **III. Biomedical sciences**

- Sensor: Biosensors, Chemical Sensors.
- Lab on Chip
- Biomedical devices
- Nanomaterials
- Artificial organs, robotics, implants, prosthesis

#### **Selection Procedure**

Selection to the PhD programs would be based on performance in a written test, previous academic record and an interview. Only such applicants, who obtain the minimum required marks in aptitude test, subject specific test and the indicated total percentage of marks, will be considered for final preparation of result as given below:

- General/SC/ST/OBC:[Research Aptitude and Bioengineering Aptitude Test (FM: 30 + 70 = 100) = Weightage: 40%; Academic record & Interview (FM: 30 + 70 = 100) = Weightage: 60%; and Total Weightage: = 100%].
- A relaxation of 5% in qualifying marks of the entrance test will be applicable for SC/ST/ OBC students.

## 5. **Syllabus for entrance examination**

Candidates will be asked to answer questions related to research and bioengineering aptitude. Syllabus of research aptitude includes: Basics of Research Methodology, Statistics, Logical Approaches to Research: Top down and Bottom up, Research Proposal. Bioengineering Syllabus will include three sections: Section A will include questions on basic biotechnology principles, methods and techniques, section B on bioinformatics and IT skills and section C on basics of physiology, biochemistry and robotics. Question papers would be composed of both the MCQ and Descriptive types of Questions.

## 6. **Fellowships/ Assistantship Details**

To avail the fellowship the student must have a valid Score in NET / GATE/ SET/ BINC/ SLET/ Equivalent in their respective discipline. Also a meritorious candidate with one or more published/ accepted research article (s) and prior research experience may be considered by the university on a case per case basis.

- Institute fellowships are available for full-time scholars.
- Only those with superior performance in the PhD Entrance Test shall be eligible for Institute Fellowship with initial amount of Rs.20, 000/- per month for the first two years.
- After satisfactory performance (i.e. clearing all the registered subjects and getting the synopsis approved) in the first year, the Institute fellowship will be enhanced to Rs.24, 000/- per month from third year onwards upto a maximum of six years.
- Only if a student publishes at least one research paper in SCI journals of repute, then his/her Institute fellowship amount will be enhanced to Rs.24, 000/- per month in the third year.
- Applicants who have qualified in UGC-JRF/CSIR- NET/any other national level test for pursuing PhD would avail the fellowships directly from the respective organizations.
- Fulltime students have to work as "Teaching Assistant" under faculty guide. Candidate will be expected to provide assistance in conducting classes/ workshops/ tutorial development/ other research activates under guidance of Ph.D. supervisor.

## 7. **Seats and Reservations**

Total Intake for Ph.D in Bioengineering 5 (2020)

*All the reservation of seats will be maintained as per the current government norms.*

## **8. How to Apply?**

- Candidate should submit dully filled the Hard/ Soft copy of Application form in prescribed format along with a tentative research proposal (within 1000 words) stating his/her research of interest.
- Tentative application fee : INR 1,500
- Payment mode: Net-banking, MIT Bioengineering account
- Candidates might visit faculty profiles from “<http://mituniversity.edu.in/bio>” or also call/mail the individual faculty members before filling the Ph.D. application form and Ph.D research area selection.

## **9. Eligibility for the Award of Ph.D. Degree**

Candidates should be qualified / completed the following steps:

- Qualified in Ph.D. Entrance Examination
- Completion of Ph.D. Course Work
- Qualified in Comprehensive Examination
- Qualified in Assessment of Research Proposal submitted by the candidate
- Qualified in Annual/ biannual Research Progress Seminar (including Published Research Papers)
- Qualified in Pre-Synopsis Seminar
- Synopsis Submission
- Ph.D. Thesis Submission
- Qualified in Ph.D. Thesis Evaluation

**Appendix 1.**

**No Objection Certificate from University/ Organization/Institution for Ph.D.  
Applicant Under Part Time Category**

(To be typed on letterhead of the Institution/University)

To  
The Vice Chancellor  
MIT Art, Design and Technology University, Pune  
Maharashtra - 412201.

Dear Sir,

This is to certify that Shri./Smt./Kum. \_\_\_\_\_ is an employee of our Institute since \_\_\_\_\_ and is currently serving as \_\_\_\_\_ (designation).

Our Institution has no objection to his/her application in the \_\_\_\_\_ (department) to join the Ph.D. Programme at MIT Art, Design and Technology University, Pune-412201, under Part Time category.

Signature & Seal of the Head of the University/ Institution.

[An additional **No Objection Certificate + Biodata of Co-supervisor** (to be enclosed giving details of designation, qualification, research experience, etc) should be provided by the candidate from proposed Co supervisor (external), which is **Optional**]  
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