

**Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,  
CHHATRAPATI SAMBHAJINAGAR.**



**CIRCULAR NO.SU/Cert.Course/Sub-Campus/NEP/13/2024**

It is hereby inform to all concerned that, the syllabi prepared by the Departmental Committee, **Academic Council at its meeting held on 08 April 2024 has accepted** the following curriculum under the Faculty of Science & Technology **run at Dr.Babasaheb Ambedkar Marathwada University, Sub-Campus, Dharashiv** as appended herewith.

Sr.No.	Syllabi of Deptt of BAMU, Sub Campus, Dharashiv.	Department
1.	Certificate Course in Understanding Medical Reports	Biotechnology
2.	Advanced Certificate Course in Medical Report Interpretation	Biotechnology
3.	Certificate Course in PCR & RTPCR	Microbiology

This is effective from the Academic Year 2024-25 and onwards.

All concerned are requested to note the contents of this circular and bring the notice to the students, teachers and staff for their information and necessary action.

University Campus,  
Chhatrapati Sambhajanagar.-  
431 004.

REF.NO.SU/NEP/2024/1804-12\*\*\*\*\*

Date:- 18.06.2024.

  
**Deputy Registrar,**  
**Academic Section**

**Copy forwarded with compliments to :-**

- 1] **Head of the Department, Department of Biotechnology, Microbiology**, Dr.Babasaheb Ambedkar Marathwada University, Sub-Campus, Dharashiv.
- 2] The Director, University Network & Information Centre, UNIC, with a request to upload this Circular on University Website.  
Copy to :-
  - 1] **The Director, Board of Examinations & Evaluation**, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajanagar.
  - 2] The Section Officer,[M.Sc.Unit] Examination Branch, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajanagar.
  - 3] The Programmer [Computer Unit-1] Examinations, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajanagar.
  - 4] The Programmer [Computer Unit-2] Examinations, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajanagar.
  - 5] The In-charge,[E-Suvidha Kendra], Examinations, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajanagar.
  - 6] The Public Relation Officer, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajanagar.
  - 7] The Record Keeper, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajanagar.

**Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar**

**Sub Campus, Dharashiv**

**Department of Microbiology**

**Certificate Course in PCR and RTPCR**

**Credits: 02**

**Contact Hours: 30**

### **About**

- Detection of viral pathogen is a priority area in the recent times and the participants trained in this course will be the work force for future needs.
- Training will provide ample job opportunities, especially in health sector and research set up.
- Each and every participant will be provided opportunity to conduct experiments with full access.
- Theoretical and practical aspects of viral diseases and basic concepts of infection biology will be taught to the participants. The course will empower participants to determine the detection of viral pathogens in different samples.
- Such a skill is in high demand in the present day scenario, due to outbreak of new viral diseases.

### **Eligibility**

Graduate students in any area of biology studied genetic/molecular biology course

### **Fees Structure**

Student will be provided Study material and Hands on training at a cost of Rs.5000/student.

### **Admission Process**

Admission will be on first come first serve basis. **Only 15 students** will be admitted per batch.

### **Curriculum**

- A) PCR alternative to gene cloning- advantages, principle and Procedure, optimization of PCR, Designing of primers, Identification of PCR products, Variations in basic PCR- Inverse, asymmetrical , multiplex, Hot start, ligation mediated, RT-PCR , Real-time quantitative PCR, DD PCR and Immuno PCR.

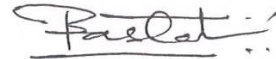
**(03 Hours)**

- B) Applications- DNA cloning for sequencing, DNA-based phylogeny, or functional analysis of genes; the diagnosis of hereditary diseases; the identification of genetic fingerprints (used in forensic sciences and paternity testing); the detection and diagnosis of infectious diseases. PCR based Site directed mutagenesis, Identification of pathogens (03Hours)
- C) Basic concepts of infection biology (02Hours)
- D) Examples of Viral Diseases (02 Hours)
- E) Hands on Training (Laboratory) (20 Hours)

### Evaluation

Students will be evaluated on the basis of theory and practical examination at the end of course

Theory Examination	: 25 Marks
Practical Examination	: 25 Marks
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	50 Marks



Professor and Head  
Department of Microbiology  
Dr. Babasaheb Ambedkar Marathwada University,  
Sub Campus, Osmanabad