Pune District Education Association's

Annasaheb Magar Mahavidyalaya, Hadapsar, Pune-411028

Department of Microbiology

Certificate course

""The Techniques in Immunology and Molecular Biology"

Aim:

Certificate course in "The Techniques in Immunology and Molecular Biology" has been designed for students to enrich their knowledge for future career in diagnostic labs.

Objectives:

Students can seek a career in testing of clinical samples. This certificate course program will assist them to gain skills and knowledge about diagnostic tests and data analysis.

Course Structure:

The certificate course comprises of theory and practical sessions. The practical sessions will be extensive at par to the hands on training.

After completion of the certificate course by the students, he/she will be awarded certificate to augment their resume for seeking a fine career in future.

Expected certificate course outcome:

The certificate course outcome is aimed on progression pathways of the student:

- i. Can join industry as Technician in diagnostic lab.
- ii. Can become Entrepreneur in small scale unit
- iii. Can become instructor at vocational / ITIs in the subject.
- iv. Can join Advanced Diploma (Vocational) courses under MLT.



P.D.E.A.'s



Annasaheb Magar Mahavidyalaya, Hadapsar, Punc-28 Department of Microbiology (U.G.)

Date: - 20/12/2019

Notice

Certificate Course for Students of T.Y.B.Sc. (Microbiology)

Department of Microbiology has arranged a Certificate Course on "The Techniques in Immunology and Molecular Biology" from 1st January 2020 to 08th February 2020 of 30 lectures duration. The topics covered during course will be different from your regular syllabus. This will help you in pursuing service in diagnostic labs after graduation.

A certificate will be awarded to those students, who will complete the course successfully.

Interested students should enroll their names before 25th December 2019.

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Time table Incharge Departmine Microbiology Principal Principal Hadapsar, Pune - 44 to22

Hadapsar, Pune-411928.

P.D.E.A.'s Annasaheb Magar Mahavidyalaya, Hadapsar, Pune-28 Department of Microbiology (U.G.)

Date: - 20/12/2019

Syllabus of Certificate Course

~~~	Syllabus of Certific	eate Course
SN	Title of Topic	No. of lecture/s required
1	Calibration of Instruments	01
2	Haemodialysis	01
3	Allergen testing	01
4	Immuno diffusion technique	01
5	Radio Immuno diffusion technique	01
6	Detectors in Diagnostics Test	
	d) Fluorescents	01
	e) Radio labelled	01
	f) Biotin avidin	01
7	Stem cells Biology	01
8	Elispot Assay	01
9	Detection of antigen in cells & tissues	01
10	Isolation of leucocytes sub population	01
11	Fluorescent cell sorter	01
12	Immuno histochemistry	01
13	DNA Array	01
14	DNA sequencing	01
15	Protein Array	01
16	PCR	01
17	Primer design	01
18	Plasmid mapping	01
19	Restriction enzymes	01
20	SDS PAGE	01
21	DNA Hybridization	01
22	r-RNA finger printing	01
23	Mutation detection	01
24	Blotting Techniques	01
25	Molecular diagnostics techniques	01
26	Molecular Biology in forensic science	01
27	Genotoxicity	01

Prepared by:

Dr. Patil N.N.

Mr. Deshpande M.V.

Dr. Khisti U.V.

Dr. Shinde S.R.

Ms Jagtap P.D.

Mrs. Sherkar S.D.

Mrs. Borade U.B.

Approved by

BoradevB

Department of Microbiology Annasaheb Magar Mahavidyalinya Hadapsar, Puna 411029

### P.D.E.A.'s Annasaheb Magar Mahavidyalaya, Hadapsar, Punc-28 Department of Microbiology (U.G.)

Date: - 20/12/2019

S.No.	Time Tabl	e of Certificate Cor	irse	
ENT W	ring of Lobie	Name of the Speaker	Date	Timing
	Calibration of Instruments	Dr.Khisti U.V.	01/01/2020	9.00am to 10.00am
3	ZIR/HOMANYSIS	Dr.Khisti U.V.	02/01/2020	4.30pm to 5.30pm
	Allergen testing	Dr.Khisti U.V.	03/01/2020	4.30pm to 5.30pm
4	Immuno diffusion technique	Dr.Khisti U.V.	04/01/2020	4.30pm to 5.30pm
5 6	Radio Immuno diffusion technique	Dr.Shinde S.R.	06/01/2020	9.00am to 10.00am
6	Detectors in Diagnostics Test	Dr,Shinde S,R,	07/01/2020	9,00am to 10,00am
	a) Fluorescents	Dr.Shinde S.R.	08/01/2020	4,30pm to 5,30pm
The state of the s	b) Radio labelled	Dr.Shinde S.R.	09/01/2020	4.30pm to 5.30pm
	e) Biotin avidin	Mr.Deshpande M.V.	10/01/2020	9,00am to 10,00am
7	Stom cells Diology	Mr.Deshpande M.V.	11/01/2020	9.00am to 10.00am
8	Blispot Assay	Mr.Deshpande M.V.	13/01/2020	9.00am to 10.00am
0	Detection of antigen in cells & tissues	Mr.Deshpande M.V.	14/01/2020	9,00am to 10,00am
10	Isolation of leucocytes sub- population	Dr.Patil N.N.	16/01/2020	9,00am to 10,00am
II.	Fluorescent cell sorter	Dr.Patil N.N.	17/01/2020	9,00am to 10,00am
12	lmmuno histochemistry	Dr.Patil N.N.	20/01/2020	9,00am to 10,00am
13	DNA Array	Mrs.Sherkar S.D.	21/01/2020	9,00am to 10,00am
14	DNA sequencing	Mrs,Sherkar S.D.	22/01/2020	9.00am to 10.00am
15	Protein Array	Mrs,Sherkar S.D.	23/01/2020	9,00am to 10,00am
16	PCR	Mrs.Sherkar S.D.	24/01/2020	9.00am to 10.00am
17	Primor dosign	Mrs, Borade U.B.	25/01/2020	9.00am to 10.00am
18	Plasmid mapping	Dr.Patil N.N.	27/01/2020	9.00am to 10.00am
19	Restriction enzymes	Mrs, Borade U.B.	28/01/2020	4.30pm to 5.30pm
20	SDS PAGE	Mrs. Borade U.B.	29/01/2020	9.00am to 10.00am
21	DNA Hybridization	Mrs, Borade U.B.	30/01/2020	4.30pm to 5.30pm
22	r-RNA finger printing	Ms.Jagtap P.D.	01/02/2020	9.00am to 10.00am
23	Mutation detection	Mrs, Borade U.B.	03/02/2020	9.00am to 10.00am
24	Blotting Techniques	Ms,Jagtap P.D.	04/02/2020	9.00am to 10.00am
25	Molecular diagnostics techniques	Ms.,Jagtap P.D.	05/02/2020	9.00am to 10.00am
26	Molecular Biology in forensic science	Ms.Jagtap P.D.	07/02/2020	9.00am to 10.00am
27	Genotoxicity	Ms.Jagtap P.D.	08/02/2020	9.00am to 10.00am

Time table Incharge coartment of Microbiology

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PDEA's Annasaheb Magar Mahavidyalaya, Hadapsar, Pune-411028
Certificate Cour. of Microbiology Department (Year 719-20)
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Department of Microbiology.

Certificate Cou. of Microbiology Department (Year 119-20) Title:- The Techniques in Immunology and Molecular Biology PDEA's Annasaheb Magar Mahavidyalaya, Hadapsar, Pune- 411028

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Anneseheb Magar Mahavidyalayi

Hadaosar, Pune - 411028



### P.D.E.A.'s

### Annasaheb Magar Mahavidyalaya, Hadapsar, Punc-28

Department of Microbiology (U.G.)

Date:- 09/02/2020

### REPORT

On Certificate Course for Students of T.Y.B.Sc. (Microbiology)

Department of Microbiology has conducted a Certificate Course on "The Techniques in Immunology and Molecular Biology" from 1st January 2020 to 08th February 2020 of 30 lectures duration. This course was conducted for pursuing service in diagnostic labs after graduation. Twenty five students participated and completed the course.

Course

coordinator

Clepartment of Microbiolog

Annasahed Mapar Mahavidyalaya

Hadapsar, Funey 411028

Principal

Principal Principal

Annasaheb Magar Mahavidyataya, Hadapsar, Pune-411028.



# P. D. E. A's Annasaheb Magar Mahavidyalaya,

Hadapsar, Pune -411028.

CERTIFICATE OF APPRECIATION

## This certificate is awarded to

Name of the student:
Jagadale
Purva
Mahadev

T.Y. BSc

Year: 2019 - 20

For successful completion of Certificate course entitled

The Techniques in Immunology and Molecular Biology

32 / E

The Table

Mr. M. V. Deshpande Course coordinator

Dr. Mrs. N. N. Patil

IQAC Coordinator Dr. R. P. Joshi

Vice-Principal Dr. P. P. Mulay

Dr. P. N. Shelke Principal