# Hands-on-Training on

## "Basic Laboratory Techniques in Microbiology"

#### **Value Added Course**

**Duration 10 Days (30 Hrs) Dates 18-27 May, 2023** 





Organized by

## Department of Veterinary Microbiology

College of Veterinary & Animal Sciences S.V.P.U. of Agri. & Technology, Meerut-250110

#### **About the Course**

The department of Veterinary Microbiology is the constituent department of the College of Veterinary & Animal Sciences came into existence in 2012 after recruitment of the teaching staff on the regular posts. The key objectives of the department are to (i) impart education to the undergraduate and postgraduate students, admitted in the field of Veterinary Microbiology that comprises general and systematic studies of microbes, their immunological and biotechnological studies, experimental animal studies and prevention and control of infectious agents. Microbiology is an ever growing field and expertise in basic microbiological techniques provides an edge to the student. Hence this course is designed to provide an extensive hands on training in basic techniques used in Microbiology such as media preparation, isolation of micro-organisms, handling and purification of microbial cultures, use of different kinds of media in a Microbiology laboratory, various bacterial staining methods and differentiation of bacteria based morphological and cultural characteristics. This training will not only generate interest to study Microbiology in a student, but also impart skill and confidence to handle various microorganism. Each participant will perform each experiment and record his/her observations. Participants will be able to repeat any experiments if required.

We are continuously getting demand of a hands on training course (value added) on various laboratory techniques for disease diagnosis. In light of above facts, we planned to conduct a 10 day (30 hours) value added course programme for PG students (Veterinary and allied sciences) from 18th May to 27th May 2023.

#### **Key Differentiators**

- Certificate course under Department of Veterinary Microbiology, COVAS, SVPUAT
- Hands-on training on all the basic techniques.
- Limited seats for individual attention.
- Certification on successful completion of practical examination.

#### **Course Outcomes**

- The course is intended to equip the post graduate students with various microbiology laboratory techniques.
- Gain knowledge about morphology, structure of bacteria
- Familiar with various techniques used for isolation, cultivation and preservation of bacterial culture.
- Knowledge gained by this training course will help the students to perform their research work with ease and plan future prospective research.
- Understanding the principles and methodology of various advanced diagnostic techniques in microbiology

#### Topics to be covered

- Introduction to the Microbiology Laboratory, good laboratory practices and biosafety
- Principle and working of instruments used in a Microbiology lab i.e. sterilization
- Techniques for culturing and isolation of microorganism
- Identification of Microorganism
- Visualization of different types of microbes through microscopy
- ◆ Techniques for fungal isolation and identification.
- Zoonotic pathogens from clinical samples
- Parasitic investigation techniques
- Techniques for virus cultivation
- Staining techniques, Antibiotic sensitivity test
- ♦ Immunological techniques i.e. ELISA, RBPT
- Primer designing
- Molecular techniques i.e. PCR, SDS
- Bioinformatics
- Histopathology

#### Eligibility

Students pursuing Postgraduate degree/Final year interns UG students in Veterinary/Animal Sciences or any other allied sciences.

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18-27 May, 2023

#### **Application Form**

1.	Name of the student:
2.	College name
3.	I.D. No:
4.	Student Department
5.	Educational qualification:
6.	Address of Student:
7.	Correspondence Address
8.	Mobile Number
9.	Email ID of Student:
10.	Signature of Student with date
11.	Forwarded with OIC/ HOD

#### **Chief Patron**

Dr. K. K. Singh

Hon'ble Vice Chancellor

#### **Patron**

Dr. Rajeev Singh

Dean, COVAS

#### **Course Director**

Dr. Harshit Verma

Asst. Prof., Veterinary Microbiology

#### **Course Coordinator**

Dr. Shailja Katoch

Asst. Prof., Veterinary Microbiology

#### **Organizing Secretaries**

Dr. Shriya Rawat, Asst. Prof.

Dr. Vikas Jaiswal, Asst. Prof.

Dr. P.S. Maurya, Asst. Prof.

#### **Co-organizing Secretaries**

Dr. Naresh Chandra, Asst. Prof.

Dr. K. Ranjan, Asst. Prof.

Dr. M.K. Bharti, Asst. Prof.

#### **Course Director**

#### Dr. Harshit Verma

**Assistant Professor** 

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#### **Course Coordinator**

#### Dr. Shailja Katoch

**Assistant Professor** 

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