

**Institutional Development Plan
College of Veterinary Science, Ludhiana, GADVASU**

Application form for International Training of Students under NAHEP-IDP

- **Name of the Student** : _____
- **Admission No.** : _____
- **Mobile No.** : _____
- **Email Id.** : _____
- **Gender** : _____
- **Category (Gen/SC/ST/
OBC etc)** : _____
- **OGPA (attach self
attested copies)** : _____
- **Participation in Sports/
Co-curricular Activities
(attach self attested
copies)** : _____
- **Expiry Date of Passport** : _____

Signature of Candidate

Name:

Date:

INSTITUTIONAL DEVELOPEMENT PLAN (IDP)
GURU ANGAD DEV VETERINARY & ANIMAL SCIENCES UNIVERSITY,
LUDHIANA

Syllabus

1. Structure and Morphology of Bacteria, Bacterial Stains and Techniques
2. Growth and Nutritional requirement of Aerobic and Anaerobic Bacteria, Normal, Opportunistic & Saprophytic Bacteria Flora
3. Types & Sources of Infection & Methods of Transmission of Infection, Pathogenicity, Virulence, Determinants of Virulence, Epizootic and Enzootic Diseases, Bacteremia, Septicaemia and Toxaemia, Endotoxins, Exotoxins, Antitoxins, and Toxoids.
4. Isolation, growth, cultural, morphological, biochemical and antigenic characteristics, epidemiology, pathogenesis, diagnosis, prevention and control of following bacteria:
Staphylococcus, Streptococcus, Corynebacterium, Trueperella, Rhodococcus, Listeria, Erysipelothrix, Bacillus, Mycobacterium, Clostridium, Actinomyces, Nocardia, Streptomyces, Dermatophilus, Enterobacteriaceae (E. coli, Klebsiella, Salmonella, Yersinia, Proteus) Pseudomonas, Burkholderia, Pasteurella, Mannheimia, Actinobacillus, Haemophilus, Brucella, Vibrio, Campylobacter, Bordetella, Moraxella, Leptospira, Mycoplasma, Rickettsia, Coxiella, Neorickettsia, Ehrlichia, Anaplasma, Chlamydia and Chlamydophila
5. Introduction, classification and general properties of fungi, *Candida* and *Cryptococcus*, *Aspergillus* and *Penicillium*, Dermatophytes, *Malassezia*, Dimorphic fungi, *Rhinosporidium* and *Sporotrichum*, Mycetoma, Mycotic mastitis & Mycotic abortion, Mycotoxicoses.
6. Basic concepts and scope of Recombinant DNA technology,
7. Gene cloning, cloning and expression vectors.
8. Transformation and Transfection
9. Southern, Northern and Western blotting
10. Bioinformatics and Gene banks
11. Application of molecular and biotechnological techniques: (Polymerase chain reaction, Nucleic acid hybridization, DNA library, DNA sequencing and DNA fingerprinting)
12. Intellectual Property Rights (IPR)