

**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)** : \_\_\_\_\_

**Signature of Candidate**

**Name:**

**Date:**

**Training on Assisted Reproductive Technologies**  
**(Syllabus)**

**Artificial Insemination**

- Planning and organization of AI centre
- Preparation of teaser animals
- Selection, care, training and maintenance of male animal used for breeding purpose
- Techniques of semen collection
- Semen evaluation techniques
- Sterilization, storage of equipment used for semen collection and Artificial insemination
- Preparation of extenders and extension of semen
- Preservation of semen-Thawing of semen and technique of AI-Handling and maintenance of LN2 containers.

**Oestrus synchronization procedures**

**Multiple Ovulation and Embryo Transfer- In Vitro Fertilization**

- Selection of Donor / Recipient animals - Evaluation of reproductive tract (through rectal palpation and trans-rectal ultrasonography)
- Superstimulatory / superovulatory protocols in donor (How to prepare timelines/)
- Transvaginal ultrasound guided ovum-pickup (basic requirements)
- Preparation of media used for oocyte maturation.
- Preparation Semen for in-vitro fertilization
- In vivo production of embryos (collection methods)
- Quality evaluation and grading of embryos.
- Steps involved in cryopreservation of embryos
- Critical steps for handling and loading of cryopreserved embryos
- Methods of transfer of embryos