

**B.Sc. II Year  
Semester-III  
Skill Enhancement Course**

**SEC-1(2 hrs/week)**

**(2 Credits) Lectures: 30**

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**Artificial Insemination**

**Unit-I**

1. Study of male and female reproductive systems. (4h)
2. Gametogenesis and Oestrus cycle. (4h)
3. Semen: Definition, Collection by AV method, Collection technique, Evaluation, Freezing, Handling and Storage. (6h)
4. Heat detection. (1h)

**Unit-II**

5. Study of AI Equipments. (4h)
6. Time and Technique of AI. (4h)
7. Pregnancy diagnosis. (2h)
8. Visits to Veterinary Hospitals and AI Centres. (5h)

**Reference Books:**

1. Advances in Dairy animal production – Mudgal.
2. Dairy Bovine production – CK Thomas.
3. Handbook of Animal husbandry – ICAR publication.
4. Animal husbandry and Dairy Science – Jagdish Prasad.
5. A text book of Animal husbandry - G E Banerjee.
6. Livestock production and management – NSR Sastri and Thomas.
7. Reproduction in farm animals – Hafeez.
8. Animal Genetics and Breeding – Dr. Satish Kulkarni, Dr. Pandurang Gangasagar.

**B.Sc. II Year  
Semester-III  
Skill Enhancement Course**

**SEC-2 (2 hrs/week)**

**(2 Credits) Lectures: 30**

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**Conservation of Green Fodder**

**Unit-I**

1. Principles of conservation and its significance. (3h)
2. Suitable crops for conservation and stage of harvesting. (3h)
3. Silage making: (9h)
  - a. Definition and Standards of Silage.
  - b. Types of silo pits and their dimensions.
  - c. Ensiling, care during and after ensiling.
  - d. Chemical changes during ensiling.

**Unit-II**

4. Hay making: (10h)
  - a. Definition
  - b. Characteristics of good quality hay
  - c. Curing of hay
  - d. Factors affecting quality of hay.
5. Visit to Silage and Hay Unit. (5h)

**Reference Books:**

1. Silage and Hay Making, ICAR – Chatterjee BN.
2. Applied Animal Nutrition-Feeds and Feeding – Peter R. Cheeke.
3. Tropical feeds, FAO – Gohl BO.
4. Fodder production and Grassland management for Veterinarians - Reddy DV.
5. Feeds and Principles of Animal Nutrition –Banerjee GC.
6. Animal nutrition and feeding practices in India – SK Ranjhan.