Level 4 (Year 2 – Semester II)

Course Code	AT 2203			Course Title	Animal breeding and Stock Management		
Year	2	Semester	2	Credits	03	Theory (hr)	15
						Practical (hr)	60
						IL (hr)	60

Aim of the Course:

To provide the students with knowledge and skills on genetics, animal breeding and stock management, so that students can use it for development and improvement of animal breeds ultimately supporting enhancement of total productivity of animal production.

Intended Learning Outcomes:

At the end of this course, the students should be able to:
- Describe the principles of Mendelian, qualitative and quantitative genetics used in animal breeding.
- Demonstrate different artificial animal breeding methods
- Explain modern techniques used to modify and improve the reproductive performance of animals.
- Describe different management aspects of brood stock with respect to housing, feeding, replacement and health
- Identify and apply suitable animal breeding method for different animal species in order to maintain a continuous supply.

Course Capsule:

Theory (Through Expert Seminar ; Teaching Sessions; LMS)
Principles of selection, Mendelian genetics, structure and function of genes, Recombinant DNA technology, Animal genetic diversity, changes of gene frequency, qualitative and quantitative traits, variance, Estimation of breeding value, Heritability and repeatability, single and multiple trait selection, inbreeding and cross breeding and heterosis, principle of Animal breeding, Breeding systems, planning of breeding programs, natural and artificial breeding (semen collection, artificial insemination, embryo transfer), Development of breeds, techniques used to modify reproduction.

Practical (Student Centered In-Class and Field Work)
Selection procedure; Structure and gene function; Recombinant DNA technology; Estimation of variance, breeding value, heterosis; Planning of breeding programs with respect to the herd composition; Dummy preparation; Semen collection; Artificial insemination (AI); Embryo transfer; Pregnancy diagnosis; Sexing; Vaccination; Feeding for brood stocks; Replacement/Culling; Development of breeds; Application of new techniques to modify reproduction

Assessment:

Continuous assessment: 40%
End semester assessment: 60%

Continuous Assessment:

Activity	Contribution %
Module exam 01	5 %
Module exam 02	5%
Module exam 03	5%
Assignments	5%
Mid exam	20%

End Exam

Activity	Contribution %
Written exam	40 %
Practical exam	20 %