

Reproduction and Fertility - a Species Approach

Overview

This module will enable you to gain a comprehensive insight into the physiology of reproduction and the management and manipulation of fertility to optimise animal productivity.

Subject areas: general principles of reproduction; introduction to reproductive anatomy and physiology; control of breeding; fertilisation, conception and pregnancy; reproductive disorders and disease; embryo transfer and assisted reproduction; reproduction management.

Students will be required to specialise in three of the following: cattle; small ruminants; pigs; camelids, rabbits and poultry; equids.

INDICATIVE STUDY CALENDAR

Unit No	Unit Title		Week no. of course
Module 1 - General Reproduction			
Unit 1	i. ii.	Anatomy of the Reproductive System The Ovarian Cycle	1-2
Unit 2	i. ii.	Hormonal Control of the Oestrous Cycle Signs and Detection of Oestrus	3 - 4
Unit 3	i. ii	The Male Embryonic Development	5 -6
Unit 4	i. ii	Artificial Insemination Control of Ovulation	7 - 8
Unit 5	i. ii	Fertilisation, Conception and Pregnancy Parturition and the Puerperium	9 - 10
Unit 6	i ii	Embryo Transfer and Assisted Reproduction Reproductive Management	11 - 12
	TMA (from module 1)		13 -15
Module 2 - Bovine Reproduction and Fertility			
Unit 7	i. ii. iii. iv.	Anatomy of the Reproductive System and Clinical Examination Normal Breeding Practice Normal Pregnancy, Parturition and Puerperium Zebu Cattle and Water Buffalo	16 -30 , Choice of 3 species modules, 4 weeks per module + revision
Unit 8	i. ii iii. iv.	Abnormal Pregnancy and Dystocia Retention of the Fetal Membranes and the Abnormal Puerperium Infertility in the Bull Zebu Cattle and Water Buffalo	
Unit 9	i. ii. iii.	Fertility, Subfertility and Infertility in the Female The Artificial Control of Reproduction Zebu Cattle and Water Buffalo	
Module 3 - Small Ruminant Reproduction			
Unit 10	Reproductive Anatomy and Physiology		
Unit 11	i. ii. iii.	Fertilisation, Conception and Pregnancy Control of Breeding Reproductive Disorders and Diseases	
Unit 12	i. ii.	Assisted Breeding and Embryo Transfer Management and Reproductive Performance	
Module 4 - Pig Reproduction			
Unit 13	i. ii.	Anatomy of the Reproductive Tract The Breeding life of the Pig; Birth to Mating	
Unit 14	i. ii.	The Breeding Life of the Sow; Conception to Parturition The Breeding Life of the Sow; The Postparturient Period	

Unit 15	i. Manipulation of Reproduction ii. Recording for Reproductive Performance	
Module 5 - Equine Reproduction		
Unit 16	i. The Structure and Physiology of the Reproductive System ii. Clinical Examination iii. Management of Mating and Coital Behaviour iv. The Donkey	
Unit 17	i. Pregnancy, Parturition and the Puerperium ii. Infertility and Subfertility in the Mare iii. The Donkey	
Unit 18	i. Dystocia, Retained Fetal Membranes, Parturient and Post-Partum Disorders ii. Male Infertility iii. Manipulation of Reproductive Function iv. Fetal Sexing	
Module 6 - Poultry, Camelid and Rabbit Reproduction		
Unit 19	i. Anatomy and Physiology of the Male and Female Reproductive System ii. Breeding Poultry Management iii. Embryogenesis iv. Incubation	
Unit 20	i. An Introduction to the Camelid Family ii. Reproductive Physiology of the Camelids iii. Improving Reproductive Efficiency	
Unit 21	Reproduction and Fertility in the Farmed Rabbit	
	TMA s (from species options)	30 - 34
	Revision and Examination preparation	33 - 35
	Examination	36