NET - ARS syllabus for Animal Nutrition

Unit 1: Energy and Proteins: Nutritional significance of carbohydrates, lipids and proteins.

Unit 2: Minerals, Vitamins and Feed Additives

Unit 3: Rumen eco-system and functions

Unit 4: Non-ruminant Nutrition

Unit 5: Nutrient Requirements
Unit 6: Forage Conservation and Evaluation Natural and cultivated forages

Their composition and nutritive values. Nutritive value Index. Forage quality evaluation in range animals -Role of indicator Methods-Advances in silage and haymaking- Factors affecting quality of conserved forages- Quality criteria and grading of silage and hay under tropics-artificial drying of forages.

Unit 7: Feed Processing and Technology


Unit 8: Anti-metabolites and Toxic Principles


Unit 9: Elements of Research Methodology

Principles of animal experimentation - Experimental designs in nutritional research. Modern methods of feed evaluation – In vitro, gas production and nylon bag techniques, Rumen simulation techniques - Rusitec Tracer techniques in nutrition research - Role of NIR Spectroscopy - Feed microscopy in quality evaluation of feedstuffs.

Unit 10: Clinical Nutrition

Role of nutrition to control digestive and metabolic disorders (milk fever, ketosis, ruminal acidosis laminitis, bloat), metabolic profile tests. Role of nutrition in immunity, nutrition and reproduction, nutrients as antioxidants. Role of nutrition in management of GI parasites.