

Tennessee Specific Industry Certification Animal Science Content Area Resource

This Tennessee Specific Industry Certification (TSIC) resource provides additional guidance as you prepare your veterinary and animal science instructional materials. The general knowledge and skills are provided as a guide for developing lessons and lab activities that lead to deeper understanding of content. The list of sample terms are just that, a list of sample terms that will be helpful to build each student's knowledge base for this content area.

General knowledge and skills for Anatomy and Physiology

- Describe the components of the skeletal system for companion and food animals including the structure, function, joints, and the importance and/or superiority to the overall system
- Describe the makeup of the exterior anatomy of companion and food animals including the purpose that each part plays in the life of the animal
- Evaluate the overall structural soundness of companion and food animals through visually inspecting and provide oral and written evaluations
- Identify and describe the functions of the infundibulum organs
- Describe the interaction of the muscles groups and bone structure in bodily function
- Determine when an animal has been properly or overfed by live inspection and by carcass weight
- Knowledge of the major body system and organs including functions, shape, order or importance
- Identification, care, and prevention of major disease and infections
- Methods used by production and companion animals to control body temperature
- Methods to stimulate maturation of poultry reproductive system
- Organs with smooth muscle
- Explain the processes at each stage of the estrus cycle
- Identify the USDA quality grades for all meat species

Sample terms associated with content area

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|-----------------------------|------------------------|
| ○ Adduction | ○ Circulatory |
| ○ Albumen formation | ○ Comb |
| ○ Albumin | ○ Conformation |
| ○ Anatomy | ○ Corpus luteum |
| ○ Breeding value | ○ Croup |
| ○ Brisket | ○ Diaphragm |
| ○ Canter | ○ Diestrus |
| ○ Capture and fertilization | ○ Digestion |
| ○ Carcass yields | ○ Digestive secretions |
| ○ Cardiovascular | ○ Duodenum |
| ○ Ceca | ○ Edible |



Tennessee Specific Industry Certification Resource Topics and Terms

- Endocardium
- Estrogen
- Estrus
- Eukaryotes
- External fat thickness
- Feather quality
- Feed quantity
- Fibroblasts
- Fox trot
- Gait
- Gall bladder
- Gallop
- Gallop and run
- Gaskin
- Gastrin
- Genotype
- Gizzard
- Gracilis
- Heart
- Heredity
- Hides
- Hock
- Infundibulum
- Intermuscular fat
- Internal rotation
- Intramuscular fat
- Involuntary
- Kidney
- Lard
- Lateral flexion
- Light intensity and duration
- Liver
- Locomotion
- Luteinizing hormone
- Marbling
- Mastitis
- Metestrus
- Mucus
- Myocardium
- Myometrium
- Nucleus
- Offal
- Osteocytes
- Oviduct
- Oxytocin
- Pace
- Pancreas
- Pelvic limb
- Pericardium
- Physiology
- Proestrus
- Progesterone
- Prokaryotes
- Protein
- Proventriculus
- Reproductive
- Respiration
- Retail cuts
- Retroperitoneal
- Running walk
- Saliva
- Seam fat
- Semimembranosus
- Shedding of feathers
- Shell formation
- Shell gland
- Skins
- Small intestine
- Smooth muscles
- Spinning fibrous layers
- Spleen
- Striated
- Structural soundness
- Sweat glands
- Synovia
- Tallow
- Testicle
- Tibialis anterior
- Trot
- Urinary
- Uterus
- Waddles
- Waste consistency
- Water consumption increase
- Yield grade