

ANS 1101

Anatomy and Physiology

2 credits (45 hours=3 hours per week)

Department of Animal Science

Outline of the Curriculum

● Anatomy

- Terminology
- Structure and function of epithelial, glandular and connective tissues
- Anatomy of the digestive system of cattle and poultry
- Anatomy of male and female reproductive systems of cattle and poultry
- Anatomy of bovine udder
- Anatomy in relation to minor surgery i.e. castration, vasectomy and dehorning

Outline of the Curriculum

● Physiology

- Physiology of digestion of farm animals
- Reproductive endocrinology and physiology (male and female)
- Physiology of lactation

Evaluation Procedure

- Mid semester examination - 20%
- End semester examination - 80%
 - Theory Paper - 50%
 - Structured Type } - 50%
 - Essay Type } - 50%
 - Spot Examination - 30%

Terminology

- **Anatomy**- the science which deals with the structure of the body by means of dissection
- **Physiology**- the science which deals with the normal functions of the body

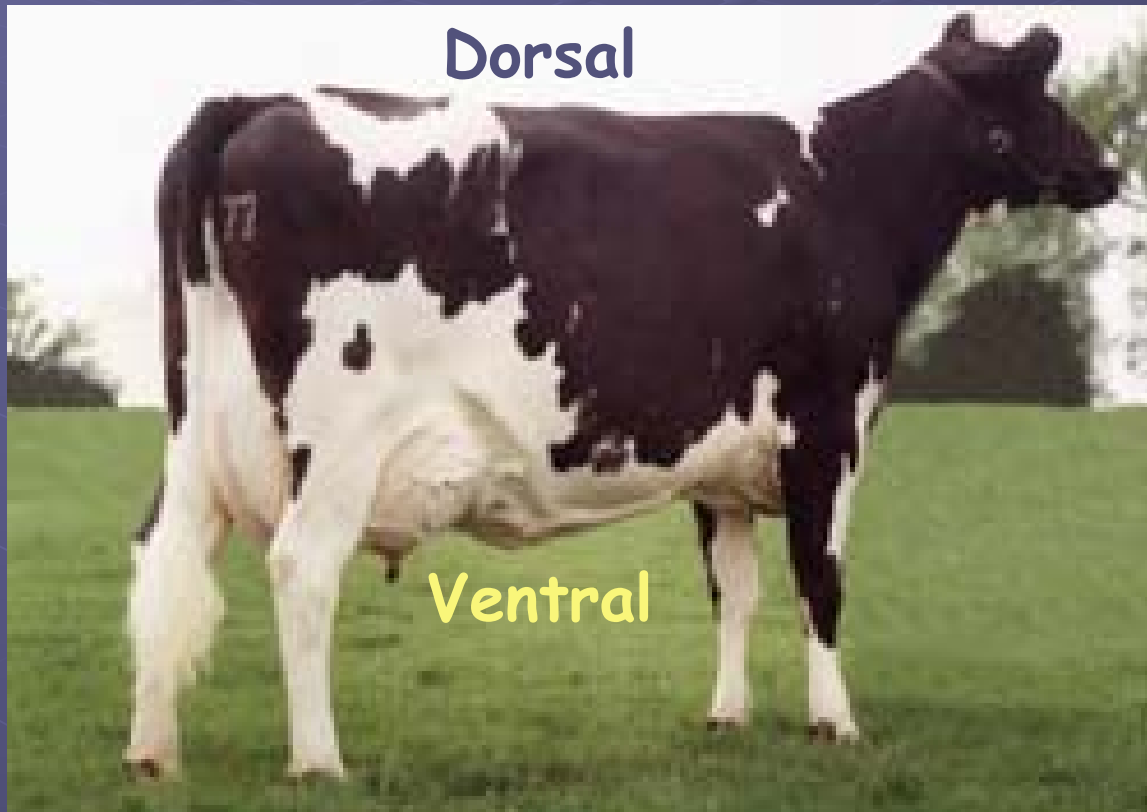
● Directional terms and planes of the animal body

1. Dorsal- towards or above the vertebral column eg. Kidneys are dorsal to other abdominal organs
2. Ventral- towards the belly/abdomen eg. Trachea is ventral to the oesophagus
3. Cranial- towards the head eg. Thorax is cranial to the abdomen
4. Caudal- towards the tail eg. Udder is caudal to the naval.

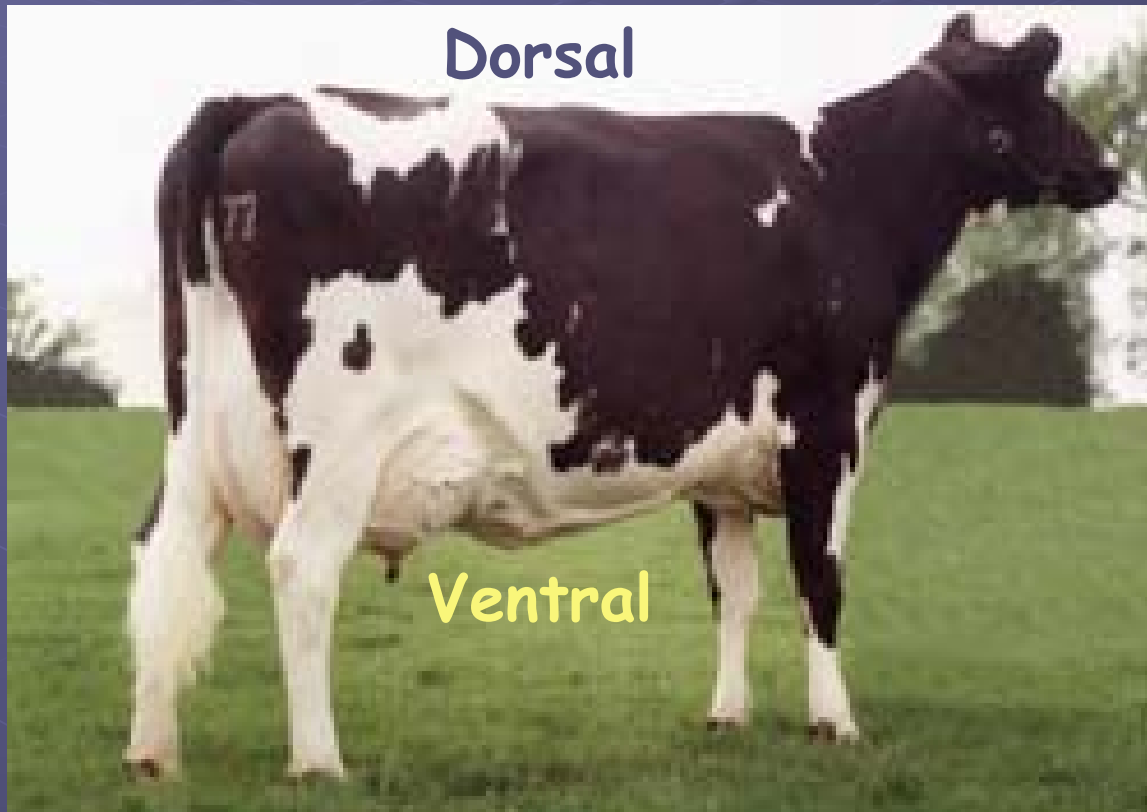
Directional terms and planes of the animal body



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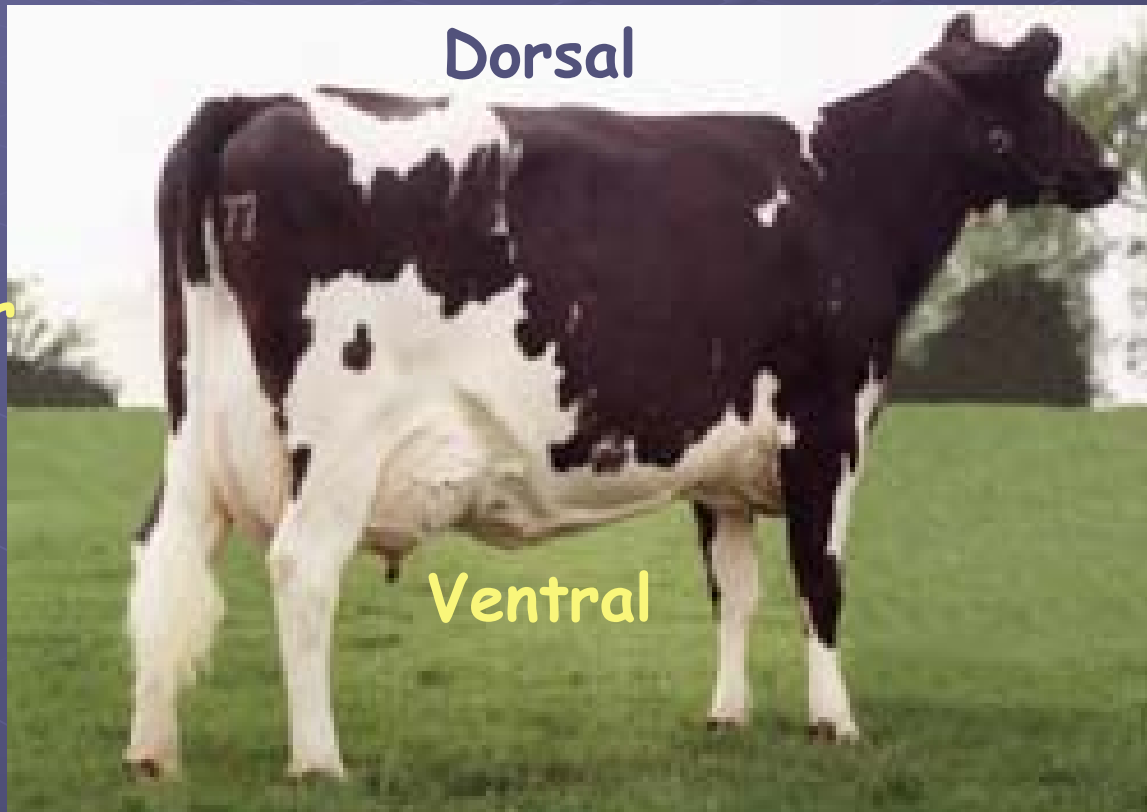


Cranial/
Anterior



Directional terms and planes of the animal body

Caudal/
Posterior



Cranial/
Anterior



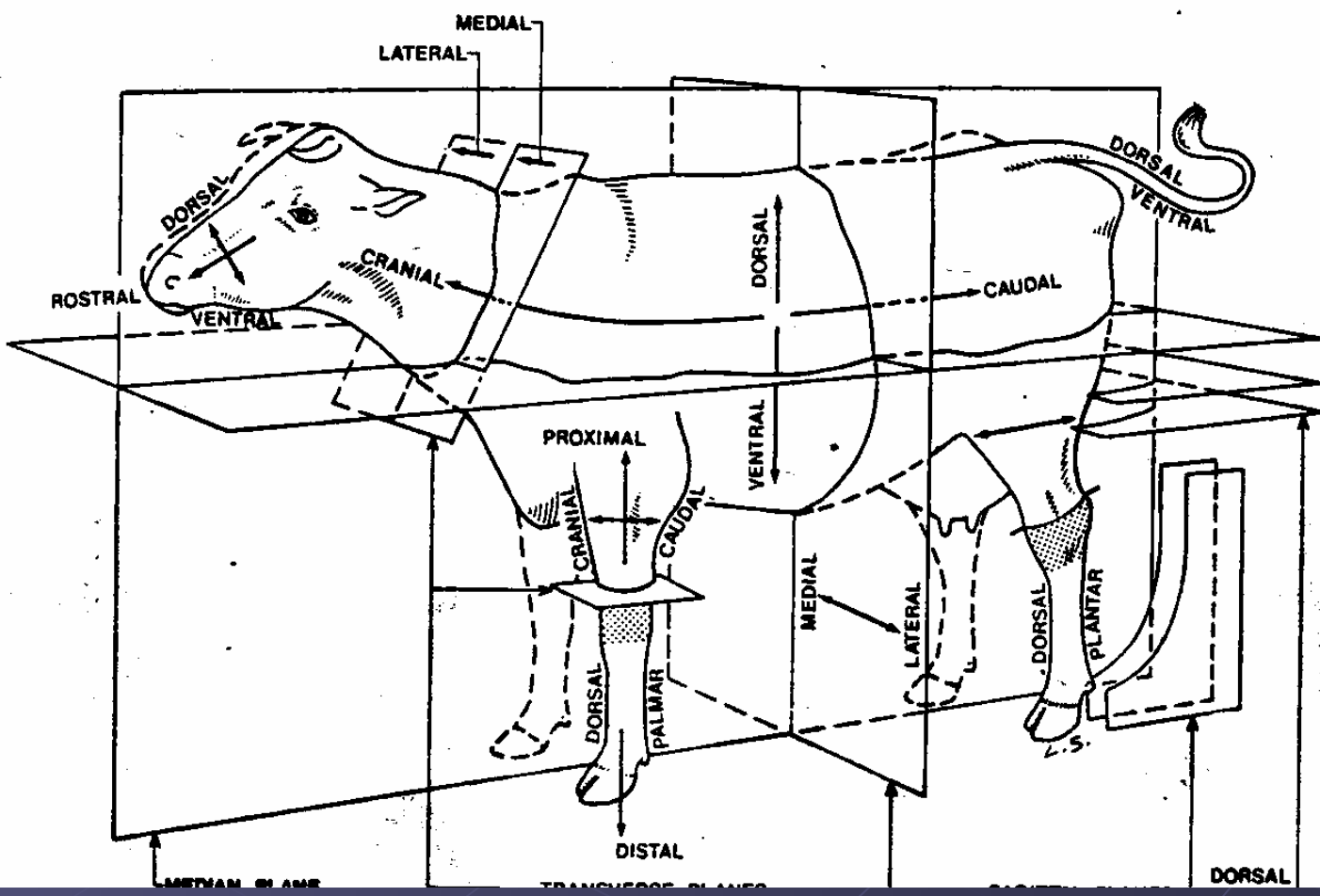
Outline of the Curriculum

5. Proximal - relatively closer to the vertebral column or the long axis of the body vertebral column or the long axis of the body eg. Knees are proximal to the hooves
6. Distal - relatively away from the vertebral column or the long axis of the body vertebral column or the long axis of the body eg. Elbow joint is distal to the shoulder joint
7. Median Plane - It is an imaginary plane passing through the body craniocaudally and divides the body in to equal right and left halves.

Directional terms and planes of the animal body

8. Sagittal Plane - Any plane parallel to the median plane
9. Transverse Plane - At the right angle to the median plane it divides the body into cranial and caudal parts.
10. Medial - towards the median plane eg internal organs are medial to the thoracic wall
11. Lateral - away from the median eg thoracic wall is lateral to the internal organs

Directional terms and planes of the animal body



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