Terms list for: Carnivore Gross Anatomy and Radiographic Anatomy Plus Palpable Structures

Note: items shown in "*small type*" are less likely to appear on gross anatomy lab exams. Also note that some terms are followed by a letter: "P" for palpable/observable structures and (for your convenience) "R" indicates most of the terms that are also on your radiology "To Know" list.

LABORATORY 1 (pp. 15-21)

Superficial structures

umbilicus
thoracic mammae (cranial & caudal)
abdominal mammae (cranial & caudal)
inguinal mammae
costal arch
superficial fascia & deep fascia
cutaneous trunci m.
preputial muscle
skin (regional thickness differences) and foot pads (p)

Thoracic limb: extrinsic muscles (mm.)

etc.
superficial pectoral muscle (descending & transverse parts)
deep pectoral muscle
brachiocephalicus m.
clavicular intersection
cleidobrachialis m.
cleidocephalicus m.
pars cervicalis (cleidocervicalis m.)
pars mastoideus (cleidomastoideus m.)

INDEPENDENT STUDY (pp. 6-15)

Thoracic limb: bones

Scapula (cranial/caudal borders, body, angles) (pr)
neck
spine (pr)
supraspinous fossa (r)
infraspinous fossa (r)
glenoid cavity
acromion process (pr) *cat: hamate+suprahamate*
serrated face
scapular notch
supraglenoid tubercle (r)
coracoid process
glenoid fossa (r)

Clavicle (r) (cat; mineralized clavicular tendon in dog)

Humerus
head (r)
intertubercular groove (r)
greater tubercle (pr)
lesser tubercle (r)
deltoid tuberosity (r)
tricipital line
brachialis groove
humeral condyle (r)
trochlea
capitulum
lateral & medial epicondyles (r)
olecranon fossa
supratrochlear foramen (r)
supracondylar foramen (cat)

Radius
head (r)
radial tuberosity
ulnar notch
medial styloid process (r)

Ulna
trochlear notch (r)
olecranon (pr)
anconeal process (r)
medial coronoid processes (pr) & lateral (r)
lateral styloid process (r)
radial fossa/notch (r)

Bones of the Carpus
proximal carpal bones: intermedioradial (radial (r)), ulnar (r) & accessory carpal bones (pr)
distal carpal bones:1, 2, 3, & 4 (r)

Bones of the Metacarpus
metacarpals: 1, 2, 3, 4, & 5 (pr)

Phalanges (proximal, middle, distal) (r)
ungual process (r)
ungual crest (r)
extensor process
proximal sesamoid bones
dorsal (and palmar) sesamoid bones (r)

LABORATORY 2 (pp. 22-25)

Ventral neck mm. & cervical deep fascia

sternocephalicus m. *(mastoid & occipital parts)*
sternohyoideus m.
sternothyroideus m.
superficial cervical lymph nodes (p)
deep fascia of the neck
carotid sheath
median raphe

THORACIC LIMB EXTRINSIC MM.

omotransversarius m.
trapezius m. (cervical & thoracic parts) (p)
rhomboideus m. (p)(capitis, cervicis, and thoracis parts)
latissimus dorsi m. (p)
thoracolumbar (deep) fascia
serratus ventralis m. (cervicis & thoracis parts)

LABORATORY 3 (pp. 26-31)

Thoracic limb: intrinsic mm. etc.

SHOULDER

deltoideus m.
infraspinatus m. (p) *with subtendinous bursa*
teres minor m.
supraspinatus m. (p)
subscapularis m.
teres major m.
coracobrachialis m.

BRACHIUM

tensor fasciae antebrachii m.
triceps brachii m. (long, lateral, accessory, & medial heads)
anconeus m.
biceps brachii m. (p)
transverse humeral retinaculum
brachialis m.

LABORATORY 4 (pp. 31-41)

Thoracic limb: intrinsic mm. (conti.)

ANTEBRACHIUM

antebrachial (deep) fascia
extensor retinaculum
flexor retinaculum
brachioradialis m. (cat, some dogs)
Extensor muscle group (p)
extensor carpi radialis m. *(longus & brevis in cat)*
common digital extensor m.
lateral digital extensor m.
extensor carpi ulnaris = ulnaris lateralis m.
supinator m.
pronator teres m.
abductor digiti I longus (aka abductor pollicis longus or extensor carpi obliquus m.)
Flexor muscle group (p)
flexor carpi radialis m.
superficial digital flexor m.
flexor carpi ulnaris m.(ulnar & humeral heads)
deep digital flexor m.(humeral, ulnar, radial heads)
pronator quadratus m.
carpal canal (p)
palmar annular ligament
digital annular ligaments (proximal & distal)

MANUS

interosseus mm.
dorsal elastic ligaments (paired in dog)
lateral elastic ligament (cat)

Thoracic limb: joints

shoulder (scapulohumeral) joint (pr)
elbow joint (humeroulnar, humeroradial, radioulnar) (pr)
lateral & medial collateral ligaments
interosseous ligament
carpal joints (radiocarpal, intercarpal, carpometacarpal) (pr)
metacarpophalangeal joint (pr)
proximal interphalangeal joint (pr)
distal interphalangeal joint (pr)

INDEPENDENT STUDY (pp. 41-49)

Pelvic limb: bones

Os Coxae:
Ilium
wing (p)
body
iliac crest (p)
tuber coxae
tuber sacrale
greater ischiatic notch
Ischium
ischiatic tuberosity (pr)
ischiatic spine
lesser ischiatic notch
ischiatic arch
Pubis
iliopubic eminence (r)
pecten
obturator foramen (r)
Acetabulum
fossa and notch (r)
Femur
head (r)
neck (r)
greater trochanter (pr)
lesser trochanter (r)
third trochanter
trochanteric fossa (r)
trochlea (ridges and groove) (r)
medial & lateral condyles (pr)
medial & lateral epicondyles (r)
extensor fossa
Patella (r)
Tibia
medial & lateral condyles (p)
intercondyloid eminence (r)
tibial tuberosity (pr)
medial malleolus (r)
Popliteal sesamoid (r)
Fibula (head of (pr))
lateral malleolus (r)
Tarsal Bones
Proximal row: calcaneus (pr), tuber calcanei (p) *with sustentaculum tali,* talus (pr) *with trochlea.*
Distal tarsal bones: 1, *2, 3, 4 & central tarsal bone* (r).
Metatarsal bones
Phalanges (r): *ungual process* (r), UNGUAL CREST (r), *dorsal and plantar sesamoid bones* (r).

LABORATORY 5 (pp. 50-59)

Pelvic limb: mm. etc.

superficial & deep gluteal fascia
sacrotuberous ligament (absent in cat)
thoracolumbar (deep) fascia
fascia lata
femoral triangle
popliteal lymph node (p)

THIGH

- biceps femoris m.
  - *(caudal crural abductor m.)*
- semitendinosus m. (p)
- semimembranosus m. (p)
- sartorius m. *(cranial & caudal parts in dog)*
- gracilis m.
  - *symphysial tendon*
- pectineus m.
- adductor m.*(brevis & longus parts-more distinct in cat)*

RUMP

- gluteofemoralis (caudofemoralis) m. (cat)
- tensor fasciae latae m.*(cranial & caudal parts esp. dog)*
- superficial gluteal m.
- middle gluteal m.
  - *piriformis m.*
- deep gluteal m.
  - *articularis coxae m.*

LABORATORY 6 (pp. 59-63)

Pelvic limb: mm. (conti.)

CAUDAL HIP

- internal obturator m.
  - *gemelli mm.*
  - *quadratus femoris m.*
- external obturator m.

CRANIAL THIGH

- quadriceps femoris m.: rectus femoris m., vastus lateralis m., vastus intermedius m. & vastus medialis m.
  - (patella & patellar ligament)
- iliopsoas m.
  - *psoas major m.*
  - *iliacus m.*

CRUS

- superficial fascia
- deep crural fascia
  - crural extensor retinaculum
  - tarsal extensor retinaculum

CRANIOLATERAL LEG

- cranial tibial m.
- long digital extensor m.
- peroneus longus m.
  - *lateral digital extensor m.*
  - *peroneus brevis m.*

LABORATORY 7 (pp. 63-75)

Pelvic limb: mm. (conti.)

CAUDAL LEG

- gastrocnemius m.
- soleus m. (cat)
  - *caudal tibial m. (cat)*
- superficial digital flexor m.
- common calcanean tendon
- calcaneal bursa
- deep digital flexor m.: lateral digital flexor m. & medial digital flexor m.
- flexor retinaculum
- popliteus m. *with sesamoid in tendon of origin*

Pelvic limb: joints

symphysis pelvis (r)
sacroiliac joint
sacrotuberous ligament (absent in cat)
hip joint (coxafemoral) (pr)
- ligament of the femoral head
  - *transverse acetabular ligament*
  - *acetabular lip*

stifle joint *(femorotibial, femoropatellar)* (pr)
- patella/patellar ligament (p)
- meniscus (lateral & medial menisci)
- collateral ligaments (medial & lateral) (p)
- cruciate ligaments (cranial & caudal)

tarsal joint *(tibiotarsal, proximal intertarsal, distal intertarsal, tarsometatarsal)* (pr)
metatarsophalangeal (pr)
interphalangeal (proximal, distal) (pr)

INDEPENDENT STUDY (pp. 75-79)

Vertebral column: bones

vertebra
- body (r)
- vertebral arch
  - pedicles (r)
  - laminae (r)
  - vertebral foramen (forms vertebral canal)
- processes
  - spinous process or spine (r)
  - transverse processes (r)
    - *vertebral endplate* (r)
  - articular processes*(cranial, caudal articular facets)*(r)
- intervertebral foramina (r)
  - *intervertebral disc space* (r)
  - *spinal canal* (r)

Cervical Vertebrae
- atlas (C1) (r)
  - wing of atlas (p)
    - *transverse foramina*
    - *lateral vertebral foramina (spinal n. C_1 exits)*
- axis (C2) (r)
  - spine of axis (p)
  - dens (r)
- C6 (r)

Thoracic Vertebrae
- spine (spinous process) (p)
- *anticlinal vertebra (T_{11})* (r)
- *accessory process* (r)
- *mamillary process*

Lumbar Vertebrae
- *Diaphragmatic crura attachment pts.* (r)

Sacrum (r)
- *median sacral crest*
- *wing*
- *promontory*

Caudal Vertebrae

Ribs
- *head, tuberculum, neck, body* (r)
- costal cartilages (costochondral junction) (pr)
- costal arch

Sternum
- *sternebrae*
- manubrium (pr)
- xiphoid process (pr)

LABORATORY 8 (pp. 81-87)

Trunk and neck: hypaxial mm. etc.
- longus capitis m.
- longus colli m.
- scalenus m.
- serratus ventralis m.
- serratus dorsalis mm. (cranialis & caudalis)
- external intercostal m.
- internal intercostal m.

Abdominal Wall
- linea alba (p)
- external abdominal oblique m.
  - *inguinal ligament (adjacent to the vascular lacuna)*
- internal abdominal oblique m.
  - cremaster m. (male dog; usually not in cat)
- transversus abdominis m.
- rectus abdominis m. (p)

Inguinal Canal
- superficial inguinal ring
- deep inguinal ring
- vaginal process (female)
- vaginal tunics (of vaginal process) covering spermatic cord (male)

LABORATORY 9 (pp. 87-88, 94-97)

Trunk and neck: epaxial mm. etc.
Iliocostalis System
- *iliocostalis lumborum mm.*
- iliocostalis thoracis mm.

Longissimus System
- longissimus thoracis et lumborum
- longissimus cervicis
- longissimus capitis

Transversospinalis System
- splenius m.
- semispinalis capitis m.
- *biventer cervicis m.*
- *complexus m.*

supraspinous ligament

nuchal ligament

Neck: nerves and vessels (pp. 94-97)
second cervical nerve (ventral branch)
- great auricular nerve
- *transverse cervical nerve*

external jugular vein (p)

mandibular lymph nodes (p)

medial retropharyngeal lymph node

superficial cervical lymph nodes (p)

accessory (eleventh) cranial nerve

ventral branches of cervical nerves 3,4,5

vagosympathetic nerve trunk

INDEPENDENT STUDY (pp. 89-92)

Vertebral column: joints
Vertebral Joints
- atlanto-occipital joint
- atlantoaxial joint (r)
  - *transverse ligament of the atlas*
  - *dorsal atlantoaxial ligament*
- intervertebral disks
  - anulus (annulus) fibrosus
  - nucleus pulposus
- *ventral longitudinal ligament*
- *dorsal longitudinal ligament*
- *yellow ligaments*

Ribs
- *intercapital ligament*

LABORATORY 10 (pp. 97-103)

Thorax
THORACIC INLET, INTERCOSTAL SPACES, HEART BEAT (p)

dorsal & ventral intercostal aa.

intercostal nn.

cranial & caudal thoracic mammae

axilla

axillary lymph node

lateral thoracic artery, vein, nerve

cranial epigastric artery
- cranial superficial epigastric artery

pleurae: (pleural space (r))
- pulmonary (visceral)
- parietal
  - costal
  - mediastinal
    - *pericardial mediastinal pleura*
    - *plica venae cavae*
  - diaphragmatic
- pulmonary ligament (caudal to root of lung)

mediastinum (contents of (r))

thymus

internal thoracic artery
- *musculophrenic artery*

LABORATORY 11 (pp. 103-109)

Lungs (r)

left lung
- cranial lobe (cranial & caudal parts)
- caudal lobe
  - *aortic impression*

right lung
- cranial lobe
  - *cardiac notch*
- middle lobe
- caudal lobe &
- accessory lobe

principal (mainstem) bronchi
- *carina*
- lobar bronchi

tracheobronchial lymph nodes

Thorax: vessels cranial to the heart

cranial vena cava (r)
- brachiocephalic vein
  - external jugular vein
  - subclavian vein
- azygos vein

thoracic duct
- *cisterna chyli*
- *tracheal ducts*

aorta (r):
- ascending aorta
- aortic arch
- descending aorta

coronary arteries (right & left)

brachiocephalic trunk
- left common carotid a.
- right common carotid a.
- right subclavian a.

left subclavian a.
- vertebral artery
- costocervical trunk
- superficial cervical artery
- internal thoracic artery

Thoracic aorta: branches

- (dorsal) intercostal arteries
  - bronchoesophageal a.
    - *esophageal aa.*
    - *bronchial aa.*

phrenic nerve

INDEPENDENT STUDY (pp. 109-114)

Autonomic Nervous System

Central Nervous System
- *brain*
- *spinal cord*

Peripheral Nervous System
- *cranial nerves*
- *spinal nerves*
  - *afferent axons (travel in dorsal root)*
  - *efferent axons (travel in ventral root)*
  - *visceral efferent (vs. somatic efferent)*
    - *preganglionic neuron*
    - *autonomic ganglion*
    - *postganglionic neuron*

LABORATORY 12 (pp. 114-119)

Nerves and ganglia

cervicothoracic ganglion

vertebral nerve

ansa subclavia

middle cervical ganglion

cardiac nerves

vagosympathetic trunk

cranial cervical ganglion

vagus nerve (dorsal and ventral branches)

left & right recurrent laryngeal nerves
- *caudal laryngeal nerve*

dorsal & ventral vagal trunks

Heart and pericardium

fibrous pericardium

phrenicopericardial ligament

serous (membrane) pericardium
- parietal pericardium
- visceral pericardium (epicardium)

auricular (left) & atrial (right) surfaces of heart

coronary groove

subsinuosal interventricular groove

paraconal interventricular groove

right atrium (r)
- *sinus venarum*
  - *interatrial septum*
  - *intervenous tubercle*
  - *fossa ovalis*
  - *crista terminalis*
- right auricle
  - *pectinate muscles*

caudal vena cava (r)

coronary sinus

cranial vena cava

left & right atrioventricular orifices

endocardium

left & right atrioventricular valves
- *(parietal & septal cusps)*

right ventricle (r)
- chordae tendineae
- papillary muscles
- *trabeculae carneae*
- *trabecula septomarginalis*
- *conus arteriosus*

pulmonary trunk (r)
- *ligamentum arteriosum (fetal ductus arteriosus)*
- *lobar pulmonary aa.* (r)

lobar pulmonary vv. (r)

left atrium (r)
- left auricle

left ventricle (r)
- aortic valve (aortic root region (r))
  - semilunar cusps
    - *fibrous nodule*

left coronary artery
- *circumflex branch*
- *paraconal interventricular branch*

right coronary artery
great cardiac vein
- coronary sinus

LABORATORY 13 (pp. 119-129)

(superficial cervical lymph nodes (p))

Thoracic limb: arteries

subclavian a.
- superficial cervical artery

axillary artery
- *external thoracic a.*
- lateral thoracic a.
- subscapular a.
  - thoracodorsal a.
    - *caudal circumflex humeral a.*
- *cranial circumflex humeral a.*

brachial artery
- *deep brachial a.*
- *bicipital a*
- collateral ulnar a.
- *superficial brachial a.*
  - *cranial superficial antebrachial a.*
- *transverse cubital a.*

Thoracic limb: nerves

SCAPULA AND BRACHIUM

Brachial Plexus
- *cranial pectoral nn.*
- suprascapular n.
- subscapular n.
- musculocutaneous n.
  - *medial cutaneous antebrachial n.*
- axillary n.
  - *cranial lateral cutaneous brachial n.*
- thoracodorsal n.
- radial n.
- median n.
- ulnar n.

LABORATORY 14 (pp. 129-135)

Thoracic limb: vessels (conti.)

cephalic v.
- *accessory cephalic v.*
- median cubital v.
- *axillobrachial v.*
- *omobrachial v. (absent in cat)*

FOREARM AND PAW:

brachial a. (continued)
- common interosseous a. (absent in cat)
  - *ulnar a.*
  - caudal interosseous a.
  - *cranial interosseous a.*

median a. *(small in cat)*
- deep antebrachial a.
- *superficial palmar arch*
  - *palmar common digital aa.*
- RADIAL A. (LARGE IN CAT)

Thoracic limb: nerves (conti.)

ANTERBRACHIUM AND MANUS

- radial n. (p)
  - deep & superficial branches
- median n.
- ulnar n. (p)
  - *caudal cutaneous antebracheal n.*
  - *dorsal & palmar branches*

LABORATORY 15 (pp. 138-143)

Abdominal wall: ventral and lateral

external pudendal a.
- caudal superficial epigastric artery
  - *cranial labial/ scrotal a.*

superficial inguinal lymph nodes (p)
cranial abdominal a.
deep circumflex iliac a. & v.
lumbar spinal nn. (ventral branches)
- *cranial iliohypogastric n. (L1)*
- *caudal iliohypogastric n. (L2)*
- *ilioinguinal n. (L3)*
- *lateral cutaneous femoral n. (from L4)*

INGUINAL STRUCTURES

inguinal canal
- external pudendal a. & v.
- genitofemoral nerve
- spermatic cord or vaginal process

Male

spermatic cord
- spermatic fascia *(external & internal)*
- cremaster muscle *(dog; usually absent in cat)*
- vaginal process
  - parietal & visceral vaginal tunics
  - mesorchium
  - mesoductus deferens
- ductus deferens
  - deferent artery/vein
- testicular artery/vein
  - pampiniform (venous) plexus

testis (p)
epididymis (p) (head, body, tail)
- ligament of the tail of the epididymis
- proper ligament of the testis

scrotum (p)

Female

vaginal process *(contains fat & round ligament of uterus)*

LABORATORY 16 (pp. 143-155)

Abdominal and peritoneal cavities

transversalis fascia
parietal & visceral peritoneum
falciform ligament (fat filled) (r)
round ligament of the liver
median ligament of the bladder
vaginal ring
deep inguinal ring
ductus deferens
caudal epigastric a. & v.

Abdominal viscera

greater omentum
omental bursa
urinary bladder (p)
uterus (p) (cervix, body, uterine horns)
spleen (pr)
gastrosplenic ligament
diaphragm
tendinous center
lumbar part(left crus & right crus (r))
costal part
sternal part
cupula (r)
aortic hiatus
esophageal hiatus
caval foramen
liver (r)
right medial & lateral lobes
quadrate lobe
left medial & lateral lobes
caudate lobe
caudate process *(with renal impression)*
papillary process
hepatic ducts
gall bladder
cystic duct
bile duct
stomach (r)
cardiac part (r)
fundus (r)
body (r)
pyloric part (r)
pyloric antrum (r)
pyloric canal
pylorus
greater & lesser curvatures

SMALL INTESTINE (pr)

duodenum
cranial duodenal flexure
descending part
caudal duodenal flexure
ascending part
duodenojejunal flexure
jejunum
mesenteric lymph nodes
ileum
ileal orifice (ileocolic orifice)

LARGE INTESTINE

cecum (r)
cecocolic orifice
colon (r) (ascending, transverse & descending (p))
right & left colic flexures
rectum (r)

LABORATORY 17 (pp. 155-163)

Abdominal viscera (conti.)

pancreas (r) (left lobe, body, & right lobe)
pancreatic duct
accessory pancreatic duct
major & minor duodenal papillae
adrenal glands (right & left) (r)
kidneys *(left)* (pr)/*and right* (r)
hilus
renal cortex
renal medulla
pyramids
renal crest
arcuate branches (of renal vessels)
renal sinus
ureter
renal pelvis
pelvic recesses
ovaries (r)
proper ligament of the ovary
uterine tube
infundibulum
abdominal ostium
tuberouterine junction
uterus (r) (cervix, body, uterine horns)
broad ligament of the uterus
mesovarium
suspensory ligament of the ovary
mesosalpinx
ovarian bursa
mesometrium
round ligament of the uterus

Peritoneum

parietal & visceral peritoneum

CONNECTING PERITONEUM:

lesser omentum
hepatoduodenal ligament
greater omentum
omental bursa
epiploic foramen
mesoduodenum
duodenocolic fold
mesentery (mesojejunoileum)
root of the mesentery
mesocolon
(ascending, transverse, descending)

LIGAMENTS OF THE LIVER:

right triangular ligament
left triangular ligament
coronary ligament
falciform ligament
umbilical v. remnant (round lig. of the liver)

Abdominal viscera: nerves

right & left vagus nerves
- dorsal & ventral branches
  - dorsal & ventral vagal trunks
    - *branch to celiacomesenteric plexus (celiac br.)*

sympathetic trunk
- major splanchnic n.
- *minor splanchnic n.*
- *lumbar splanchnic nerves*

celiacomesenteric plexus & ganglia:
- celiac plexus
  - right & left celiac ganglia
- cranial mesenteric plexus
  - cranial mesenteric ganglion

caudal mesenteric plexus & ganglion
- right & left hypogastric nerves

LABORATORY 18 (pp. 164-172)

Abdominal aorta: branches

lumbar arteries
celiac artery
- hepatic a.
  - *cystic artery*
  - *right gastric a.*
  - gastroduodenal a.
    - right gastroepiploic a.
    - cranial pancreaticoduodenal a.
- left gastric a.
  - *esophageal branches*
- splenic artery
  - *left gastroepiploic a. (aa.)*
  - *pancreatic branches*

cranial mesenteric artery
- common trunk (dog)
  - middle colic a.
  - right colic a.
  - ileocolic artery
    - *mesenteric ileal branch*
    - *colic branch*
    - *cecal artery*
      - *antimesenteric ileal branch*
- caudal pancreaticoduodenal a.
- jejunal aa.
- *ileal aa.*

common trunk (phrenicoabdominal a.)
- *cranial abdominal artery*
- *caudal phrenic a.*

renal arteries
ovarian a. / testicular a. in mesorchium
caudal mesenteric artery
- left colic artery
- cranial rectal artery

deep circumflex iliac artery
Portal Vein
- gastroduodenal vein
- splenic vein
  - *left gastric vein*
- cranial & caudal mesenteric veins

Pelvic Viscera, Vessels, & Nerves

pelvic diaphragm:
- levator ani m.
- coccygeus m.

pelvic nerve & pelvic plexus

EXTENSIONS OF PERITONEAL CAVITY:
- *pararectal fossa*
- *rectogenital pouch*
- *vesicogenital pouch*
- *pubovesical pouch*

LABORATORY 19 (pp. 173-185)

Pelvic vessels

TERMINAL BRANCHES OF AORTA:
- median sacral artery
- external iliac artery (enters vascular lacuna)
- internal iliac artery
  - umbilical artery
  - internal pudendal artery
    - vaginal a. / prostatic a.
      - uterine a. / a. of ductus deferens
        - *caudal vesical artery*
        - *middle rectal artery*
      - *ventral perineal a.*
      - caudal rectal a.
    - artery of the penis (clitoris)
      - artery of the bulb of the penis
      - deep artery of the penis
      - dorsal artery of the penis

Pelvic viscera

urinary bladder (r)
- *trigone of the bladder*
- median ligament of the bladder
- lateral ligaments of the bladder

urethral muscle (urethralis m.)
rectum
anal canal
- *columnar zone (has anal columns)*
- *anocutaneous line (intermediate zone)*
- cutaneous zone (p)
  - anal sac (paranal sinus) - opening (p)
- anus
- internal anal sphincter m. (smooth)
- external anal sphincter m. (striated)

rectococcygeus muscle

Male genitalia

prostate gland (r)
urethra
- pelvic part
  - prostatic part
    - *urethral crest*
    - *colliculus seminalis*
  - *(post-prostatic part—covered by urethralis m.)*
- penile part

prepuce
- preputial orifice
- *fornix of the prepuce*

retractor penis muscle
penis (root, body, & free part) (p)
- corpus cavernosum penis (paired)
  - tunica albuginea
  - crus (at root of penis)
    - ischiocavernosus m. (covers crus)
- corpus spongiosum penis
  - bulb of the penis (p)
    - bulbospongiosus muscle (covers bulb)
- glans
  - pars bulbus glandis
  - pars longa glandis
- os penis
  - *urethral groove*
- bulbourethral glands (cat)

Female genitalia

cervix of uterus
- cervical canal
  - *internal uterine ostium (uterine body opening)*
  - *external uterine ostium (vaginal opening)*

vagina
- fornix

vestibule
- urethral tubercle
  - urethral opening
- *vestibular bulbs*
- fossa clitoridis (p)

clitoris
vulva (p)
- labia
- *rima pudendi (vulval cleft)*
- dorsal & ventral commissures

LABORATORY 20 (pp. 186-195)

Pelvic limb: arteries

caudal gluteal a. (branch of internal iliac a.)
- cranial gluteal a. [& nerve]
- *iliolumbar a.*

external iliac a. (to level of vascular lacuna)
- deep femoral artery
  - pudendoepigastric trunk
    - caudal epigastric a.
    - external pudendal a.
  - *medial circumflex femoral a.*
    - *deep & transverse branches*

femoral triangle (p)
femoral a. (begins at level of vascular lacuna) - pulse (p)
- *superficial circumflex iliac a.*
- *lateral circumflex femoral a.*
- proximal caudal femoral a.
- saphenous a. (p)
  - cranial & caudal branches - pulse (p)
- descending genicular a.
- *middle caudal femoral a.*
- distal caudal femoral a.

popliteal a.
cranial tibial a.

Pelvic limb: superficial veins

medial saphenous v. (feline venipucture site)
lateral saphenous v.
- cranial branch (canine venipucture site)

LABORATORY 21 (pp. 195-204)

Pelvic limb: nerves

Lumbosacral Plexus:
- obturator nerve
- femoral nerve
  - saphenous nerve
- pudendal nerve
  - caudal rectal nerve
  - *perineal nerves*
  - dorsal nerve of the penis
- *caudal cutaneous femoral nerve*
- *lumbosacral trunk*
  - caudal gluteal nerve
  - cranial gluteal nerve
- sciatic nerve
  - common peroneal nerve
    - *lateral cutaneous sural nerve*
    - superficial peroneal n.
    - deep peroneal n
      - *dorsal digital nn.*
  - tibial n.
    - *caudal cutaneous sural nerve*
    - *plantar digital nn.*

Pes: arteries

- dorsal pedal artery
  - arcuate a.
    - *dorsal metatarsal aa.*
      - perforating branch
        - *plantar digital aa.*

INDEPENDENT STUDY (pp. 209-224)

Skull bones

CRANIUM AND CRANIAL CAVITY:

calvaria (r)
frontal bone (p)
- frontal sinus (r)

parietal bone
- sagittal crest (some breeds) (p)
- *temporal lines*
- *temporal fossa*
- *tentorium osseum*

occipital bone
- occipital condyles (r)
- foramen magnum
- *paracondylar process*
- external occipital protuberance (pr)
- nuchal crest (p)
- *hypoglossal canal*
- *jugular foramen*

temporal bone
- zygomatic process
  - zygomatic arch (pr)
- petrosal part (r)(contains inner ear)
  - *internal acoutic meatus*
- tympanic bulla (r)
- external acoustic meatus
- *mastoid process*
- *stylomastoid foramen*

basisphenoid bone
- *alar canal*
- *hypohyseal fossa*
- *round foramen*
- *oval foramen*

presphenoid bone

ethmoid bone
- cribriform plate (r)

FACE:

incisive bone (p)
nasal bone (p)
nasal cavity:
- nasal aperture
- nasal septum (vomer: osseous nasal septum (r))
- nasal conchae (turbinates) (r) (dorsal & ventral)
- ethymoidal (conchae) labyrinth
- nasal meati (dorsal, middle, ventral, common)

orbit
- *orbital margin*
- orbital ligament
- *orbital fissure*
- *optic canal*
- *fossa for the lacrimal sac*

pterygopalatine fossa
- *foramina (caudal palatine; sphenopalatine; maxillary)*

maxilla (maxillary bone) (p)
- maxillary recess (sinus)
- infraorbital canal (foramen (p))
  - *maxillary foramen*

hard palate (r)
- *palatine fissures* (r)
- *major & minor palatine foramina*

mandible (pr)
- body (pr)
- ramus (r)
  - coronoid process (pr)
- mandibular foramen & canal
- mental foramina (p)
- mandibular symphysis
- *condylar process* (r)
  - temporomandibular joint (pr)
- angular process (pr)

hyoid apparatus (stylohyoid, epihyoid, ceratohyoid, basihyoid, and thyrohyoid) (r)
teeth – crown; neck; shearing type (p)
- incisor, canine, premolar (PM4: carnassial tooth in maxilla), molar (M1: carnassial tooth in mandible) (r)
- alveolus

as per radiology "To Know" list - be able to Identify: enamel, pulp canal, periodontal ligament, lamina dental, etc

LABORATORY 22 (pp. 225-235)

Head: superficial structures

philtrum (p)
platysma m.
orbicularis oris m.
buccinator m.
levator nasolabialis m.
superior & inferior palpebrae
- palpebral fissure
- medial & lateral palpebral commissures (p)
- orbicularis oculi m.
- *retractor anguli oculi m.*
- *levator palpebrae superioris m.*

conjunctival sac
- palpebral conjunctiva (p)
- bulbar conjunctiva (p)
- *fornix*

lacrimal caruncle
lacrimal puncta (dorsal & ventral) (p)
lacrimal duct
lacrimal sac
nasolacrimal duct
plica semilunaris (third eyelid) (margin (p))
- *superficial gland of the third eyelid (difficult to see)*

rostral auricular muscles
scutiform cartilage
caudal auricular muscles

Oral cavity, tongue & salivary glands

LIPS (p)

vestibule (p)
- *parotid & zygomatic duct openings*

oral cavity proper
tongue (p) (root, body, apex)
- papillae (filiform, conical, fungiform, foliate & vallate)
- lingual frenulum (p)
- lingual vein (p)
- *lyssa*

sublingual caruncle (p)
- *sublingual fold*
- mandibular salivary duct
- major sublingual salivary duct

mandibular salivary gland (p)
sublingual salivary gland (monostomatic gland)
parotid salivary gland
- parotid duct (opening (p))

buccal salivary gland (cat only)
palate (pr)
- incisive papilla & duct
  - *vomeronasal organ (difficult to see)*

Pharynx
oropharynx (r)
- palatoglossal arch (p)
- palatine tonsil (p)
  - semilunar fold

nasopharynx (r)
- palatopharyngeal arch
- auditory tube

laryngopharynx
- *pharyngoesophageal limen (border)*

Pharyngeal mm.
- *cricopharyngeus m.*
- *thyropharyngeus m.*
- *hyopharyngeus m.*

LABORATORY 23 (pp. 235-241)

Larynx (pr)
epiglottic cartilage (epiglottis) (pr)
- *aryepiglottic fold*

thyroid cartilage (p)
- *rostral cornu & caudal cornu*
- *caudal thyroid incisure*

cricoid cartilage (p)
- cricothyroid ligament

arytenoid cartilage
- vocal process
- *muscular, corniculate & cuneiform processes*

vestibular fold
laryngeal ventricle (absent in cat)
glottis
- vocal fold (cat: vocal ridge)
  - *vocal ligament*
  - *vocalis muscle*
- *vocal processes of arytenoid cartilages*
- *rima glottidis (glottis cleft)*

Larynx: intrinsic mm.
- cricothyroid m.
- cricoarytenoideus dorsalis m.
- cricoarytenoideus lateralis m.
- thyroarytenoideus m.
  - vocalis m.

Ear: external
auricle (pinna)
- auricular cartilage
- marginal cutaneous sac
- *helix, tragus, incisures, etc*
- external ear canal (r)
- annular cartilage

Mastication mm.
temporalis m. (temporal m.) (p)
masseter m. (p)
medial & lateral pterygoid mm.
digastricus m.

zygomatic salivary gland

Lingual mm.
styloglossus m.
hyoglossus m.
genioglossus m.

Hyoid mm.
sternohyoideus m.
thyrohyoideus m.
mylohyoideus m.
geniohyoideus m.

LABORATORY 24 (pp. 241-246)

Eye etc.
orbit
- periorbita

lacrimal gland
superficial gland of the third eyelid

MUSCLES:
levator palpebrae superioris m.
rectus muscles (dorsal, ventral, medial, & lateral)
retractor bulbi m.
ventral oblique m.
dorsal oblique m.
- trochlea

EYEBALL:
bulbus oculi (eyeball)

EXTERNAL FIBROUS COAT
- cornea (p)
- sclera (p)
  - *limbus (corneoscleral junction)*

MIDDLE VASCULAR COAT (UVEA)
- iris (p)
  - pupil (p)
- choroid
  - tapetum lucidum
- ciliary body
  - *ciliary processes*
    - *zonule (zonular fibers)*
- lens
  - anterior (p) & posterior chambers
    - aqueous humor
  - vitreous chamber
    - vitreous body

INTERNAL COAT (RETINA)
- *ora serrata*
- optic disc
- fundus

Head: superficial veins
external jugular vein
linguofacial vein
- lingual vein
- facial vein
  - *dorsal nasal v.*
  - *angularis oculi v.*

maxillary vein

LABORATORY 25 (pp. 246-256 & 259-260)

Head: nerves

facial nerve (cranial nerve VII)
- *caudal auricular branches*
- ventral buccal n.
- dorsal buccal n.
- auriculopalpebral nerve
  - rostral auricular branches
  - palpebral branches

mandibular n. (branch of trigeminal nerve (V))
- *auriculotemporal nerve*
- *buccal n.*
- lingual n.
- inferior alveolar n.
- *mylohyoid n.*

maxillary n. (branch of trigeminal nerve (V))
- infraorbital n. – p. 259

vagus nerve (cranial nerve X) – p. 260
- *cranial laryngeal n.*
- *caudal (recurrent) laryngeal n.*

cervical sympathetic trunk
- cranial cervical ganglion – p. 259

hypoglossal nerve (cranial nerve XII) – p. 260

Cervical structures

thyroid gland (p)
external & internal parathyroid glands
esophagus (r)
- *pharyngoesophageal limen*

trachea (pr)
- tracheal cartilages

medial retropharyngeal lymph node (p)

Head: arteries

common carotid artery (pulse (p))
- *caudal & cranial thyroid arteries*
- internal carotid artery (cat: partially absent)
  - carotid sinus
- external carotid artery
  - occipital artery
  - *cranial laryngeal artery*
  - lingual artery
  - facial a.
    - sublingual a.
  - *caudal auricular a.*
  - *superficial temporal a.*
  - maxillary a.
    - inferior alveolar a.
    - *caudal deep temporal a.*
    - *middle meningeal a.*
    - external ophthalmic a.
    - *palatine aa.*
    - infraorbital a.

INDEPENDENT STUDY (pp. 256-260)

READ - NEED NOT DISSECT!!

Cranial Nerves:

I. Olfactory n.
II. Optic n.
III. Oculomotor n.
- *ciliary ganglion*

IV. Trochlear n.
V. Trigeminal n.
- ophthalmic n.
  - *frontal, infratrochlear, ciliary, & ethmoidal nn.*
- maxillary n.
  - *zygomatic n.*
  - infraorbital n.
    - *superior alveolar branches*
- mandibular n.

VI. Abducent n.
VII. Facial n.
- *pterygopalatine ganglion & nerve*

VIII. Vestibulocochlear n.
IX. Glossopharyngeal n.
- *pharyngeal plexus*

X. Vagus n.
- *proximal & distal (sensory) ganglia*
- cranial laryngeal n.
- caudal laryngeal n. (recurrent laryngeal n.)

XI. Accessory n.
XII. Hypoglossal n.

version: 8/2011