DAY ONE CORE COMPETENCIES FOR TAMU DVM CURRICULUM

I. Comprehensive Patient Diagnosis (Problem Solving Skills), Appropriate Use of Clinical Laboratory Testing, and Record Management (80%)

1. **Perform a thorough physical examination at the standard of care for each of the following species, and accurately assess the patient's overall health.**
   - a. canine (10)
   - b. feline (10)
   - c. equine (10)
   - d. bovine (5)
   - e. small ruminant (5)
   - f. other species (10) (swine, avian, rodent, rabbit, reptile)
2. **Perform rectal examination.**
   - a. canine (5)
   - b. bovine (5)
3. **Demonstrate ability to complete a problem-oriented medical record with a complete problem list, differential diagnoses, diagnostic plan, treatment plan, client communications, and discharge instructions in at least 3 species (30).**
4. **Perform a thorough orthopedic (lameness) examination.**
   - a. small animal species (5)
   - b. large animal species (5)
5. **Perform a thorough neurologic examination and demonstrate the ability to localize a lesion.**
   - a. small animal species (5)
   - b. large animal species (2)
6. **Perform body condition scoring.**
   - a. canine (10)
   - b. feline (10)
   - c. equine (10)
   - d. bovine (10)
   - e. other species (10) (swine, avian, rodent, rabbit, reptile)
7. **Demonstrate ability to estimate weight.**
   - a. canine (5)
   - b. equine (5)
   - c. bovine (5)
8. **Ophthalmic testing**
   - a. Ophthalmic examination of the anterior and posterior chambers in at least two species (2)
   - b. Schirmer tear test; any species (2)
   - c. fluoroscein staining; any species (2)
   - d. Ocular pressure measurement; any species (2)
   - e. Perform retinal examination; any species (5)
9. **Dermatologic testing**
   - a. deep (2) and superficial (2) skin scraping
   - b. otic examination; any species (10)
   - c. otic cytology collection and interpretation; small animal or exotic species (5)
   - d. skin cytology; any species (5)
   - e. sample collection for fungal and bacterial culture; any species (5)
   - f. Wood's lamp examination (1)
10. **Reproductive testing**
    - a. examine the external genitalia of at least 3 species (5)
    - b. semen evaluation; any species (2)
    - c. vaginal cytology interpretation; canine
    - d. understand methods to accurately diagnose pregnancy in at least three species (3)

11. Parasitologic testing
- a. Collect a fecal sample and perform an appropriate examination to identify eggs, larvae, cysts, or oocysts.
- b. Qualitative flotation
  - 1) canine (5)
  - 2) feline (5)
- c. Quantitative flotation
  - 1) equine (5)
  - 2) food animal (5)

12. Make and stain a blood film and identify microbial/protozoan hemopathogens.

13. Identify *Dirofilaria immitis* microfilaria in a blood sample.

14. Demonstrate proper use of a microscope for hematology/cytology and urinalysis.

15. Perform fine needle aspiration of a lymph node; any species (2).

16. Perform fine needle aspiration of cutaneous/subcutaneous mass; any species (5).

17. Properly prepare and stain a cytology slide; any species (10).

18. Evaluate a cytology slide for sample quality.

19. Demonstrate the ability to correctly differentiate epithelial, connective tissue, and round cell tumors.

20. Identify and classify the various classes of inflammation.

21. Demonstrate the ability to cytologically identify at least four species of systemic fungi and rod-shaped and coccoid bacteria; any species.

22. Perform a gram stain; any species.

23. Demonstrate knowledge of radiographic safety.

24. Perform radiographic examination in at least 5 species.

25. Demonstrate an ability to interpret radiographs and detect abnormalities.
- a. canine thorax (10)
- b. canine abdomen (10)
- c. feline thorax (10)
- d. feline abdomen (10)
- e. long bones in small animals (10)
- f. equine growth plates (3)
- g. equine joints (10)
- h. avian coelom
- i. avian long bones
- j. canine or feline sinuses

26. Be able to properly position and expose intraoral radiographs; any species.

27. Demonstrate knowledge of indications for ultrasound examination.
- a. small animal
- b. large animal

28. Demonstrate knowledge of all equine musculoskeletal structures in the distal limbs and how each is related to clinical lameness.

29. Discuss common injuries associated with the following sport horse disciplines:
- a. dressage
- b. eventing
- c. barrel racing
- d. cutting/reining

30. Perform and interpret a complete urinalysis; any species (5).

31. Accurately interpret NOVA sample; any species (5).

32. Make a blood smear (2).

33. Prepare and determine spun PCV and total protein.

34. Perform saline agglutination test.

35. Use a refractometer to determine total protein and urine specific gravity; any species.

36. Discuss the importance of quality control with use of laboratory equipment.

37. Accurately interpret a complete blood count.
- a. canine (10)
- b. feline (10)
- c. equine (10)
- d. food animal (5)
- e. avian
- f. reptile
- g. small exotic mammal

38. Accurately interpret biochemistry panel and electrolyte results.
- a. canine (10)
- b. feline (10)
- c. equine (10)
- d. food animal (5)
- e. avian
- f. reptile

39. Accurately interpret a coagulation panel.

40. Perform a complete necropsy.
- a. small animal species (3)
- b. large animal species (3)
- c. other species (2)

41. Identify bacteria in culture; any species (5).

42. Identify and distinguish between normal and abnormal heart sounds on thoracic auscultation.
- a. canine (10)
- b. feline (10)
- c. equine (10)
- d. small exotic mammal (2)

43. Identify and distinguish between normal and abnormal respiratory sounds on thoracic auscultation.
- a. canine (10)
- b. feline (10)
- c. equine (10)
- d. food animal (5)
- e. small exotic mammal (2)

44. Perform an oral examination to include knowing proper dental nomenclature, dental formulas, noting missing or supernumeray teeth, recognizing fractured teeth, oral masses, resorbing teeth or discolored
- a. canine
- b. feline
- c. equine w/dental speculum
- d. food animal
- e. small exotic mammal

45. Age by dentition.
- a. equine
- b. ruminant
- C. puppies/kittens

46. Auscult and interpret gastrointestinal sounds.
- a. equine (10)
- b. food animal (5)

47. Interpret a test measuring IgG concentration in a foal or a ruminant.

48. Perform an immunodiagnostic test (specify whether it is an antigen or antibody); any species (3).

49. Determine the glucose level of an animal using a glucometer.

50. Properly assess a glucose curve.

51. Interpret urine protein:creatinine ratio results.

52. Interpret ACTH stimulation and low-dose dexamethasone suppression test.

53. Interpret fructosamine results.

54. Perform rectal scraping.

II. Comprehensive Treatment Planning Including Patient Referral When Indicated (80%)

1. **Demonstrate comprehensive individual treatment plans for a medical referral patient.**
   a. canine (10)
   b. feline (10)
   c. equine (10)
   d. bovine (5)
   e. one other species
2. **Demonstrate a comprehensive health plan for a group or herd of animals.**
   a. canine
   b. feline
   c. equine (2)
   d. bovine (2)
   e. one other species
3. **Demonstrate comprehensive individual treatment plans for a surgical referral patient.**
   a. canine (5)
   b. feline (3)
   c. equine (3)
   d. bovine
   e. one other species
4. **Write an accurate, legible pharmacy request for medications for TAMU patients.**
   a. oral; any species (10)
   b. intramuscular or subcutaneous; any species (10)
   c. topical; any species (10)
5. **Demonstrate oral medication administration.**
   a. canine (10)
   b. feline (10)
   c. equine (10)
   d. bovine (2)
   e. one other species
6. **Demonstrate intramuscular or subcutaneous medication administration.**
   a. canine (5)
   b. feline (5)
   c. equine (10)
   d. bovine (10)
   e. one other species
7. **Demonstrate application of a topical medication; any species (5).**
8. **Demonstrate application of ophthalmic medication in at least 2 different species (5).**
9. **Demonstrate administration of intravenous medication; any species (10).**
10. **Demonstrate intradermal administration of a medication or diagnostic agent.**
11. **Choose, calculate, and administer intravenous fluids.**
    a. canine (5)
    b. feline (5)
    c. equine (10)
    d. food animal
    e. one other species
12. **Perform an enema; any species.**
13. **Flush the nasolacrimal duct; any species (2).**
14. **Perform physical rehabilitation on patients; any species (3).**
15. **Discuss appropriate use of antibiotics in TAMU clinical patients (may include class of drug, expected toxicities, indications, and contraindications including legal issues and withdrawal times); at least 4 species (10).**

16.	**Discuss appropriate use of nonsteroidal anti-inflammatory drugs in TAMU clinical patients (may include expected toxicities, indications, and contraindications); any species (10).**
17.	**Discuss appropriate clinical use of corticosteroids in TAMU clinical patients, including expected toxicities, indications, and contraindications; any species (10).**
18.	**Discuss appropriate use of anthelmintics, antiprotozoals, and pesticides including class of drugs, expected toxicities, indications and contraindications, and legal issues and withdrawal times if appropriate; at least 2 species (5).**
19.	**Perform a toenail trim.**
	a. canine (2)
	b. feline (2)
	c. avian, reptile, or small mammal
20.	**Perform food animal hoof trim (2).**
21.	**Display knowledge of equine hoof care.**
22.	**Demonstrate proper horseshoe removal.**
23.	**Discuss and explain to a client the nutritional needs and appropriate diets for different life stages.**
	a. canine
	b. feline
	c. two other species
24.	**Discuss and explain proper dental homecare to a client.**
	a. canine
	b. feline
25.	**Discuss and explain to a client the nutritional needs and appropriate diets for specific medical problems in small animals.**
	a. obesity
	b. renal disease
	c. urinary calculi
	d. hepatic disease
	e. pancreatic diseases
	f. anorexia
	g. diarrhea
	h. allergic disease
26.	**Perform an ear flush in a small animal species.**
27.	**Place esophagostomy tube in a small animal species.**

III. Anesthesia, Pain Management, and Patient Welfare (80%)

1. **Identify parts of an anesthetic machine and be able to troubleshoot problems.**
2. **Accurately set up a breathing and a nonrebreathing system.**
3. **Properly intubate:**
   a. canine (10)
   b. feline (5)
   c. equine (5)
   d. one other species (2)
4. **Develop an anesthetic plan for several species involving:**
   a. sedation
      1) canine (10)
      2) feline (10)
      3) equine (10)
      4) one other species
   b. general anesthesia
      1) canine (10)
      2) feline (10)
      3) equine (5)
      4) one other species
5. **Monitor general anesthesia and complete an anesthetic record.**
   a. canine (10)
   b. feline (10)
   c. equine (5)
   d. one other species
6. **Properly place monitoring equipment in at least four different species.**
   a. ECG (10)
   b. pulse oximeter (10)
   c. blood pressure (10)
7. **Perform local analgesic blocks.**
   a. canine (3) including intraoral
   b. feline - ringblock for declaw procedure
   c. equine (3)
   d one other species (2)
8. **Perform an equine joint injectioin (any joint).**
9. **Demonstrate understanding of how to keep accurate records for controlled drugs (Must have DEA and DPS license for clinical practice).**
10. **Develop a protocol for acute pain management.**
    a. canine (5)
    b. feline (5)
    c. equine (5)
    d. one other species
11. **Develop a protocol for chronic pain management.**
    a. canine (5)
    b. feline (3)
    c. equine (5)
    d. one other species
12. **Participate in at least one euthanasia procedure of a TAMU clinical patient.**
13. **Understand the different methods used for euthanasia in the canine, feline, equine, bovine, avian, reptile, and small exotic mammal.**
14. **Educate clients on animal welfare issues (5).**
15. **Understand and discuss the veterinarian's role in animal cruelty cases, hoarding, and pet overpopulation.**

DAY ONE CORE COMPETENCIES FOR TAMU DVM CURRICULUM

IV. Basic Surgery Skills, Experience, and Case Management (80%)

1. **Demonstrate sterile technique in a surgical setting.**
   a. canine (5)
   b. feline (5)
   c. equine (5)
   d. one other species
2. **Demonstrate proper knot-tying technique.**
   a. instrument tie
   b. hand tie
3. **Demonstrate proper suturing technique.**
   a. simple interrupted pattern
   b. subcuticular pattern
   c. vertical mattress pattern
   d. horizontal mattress pattern
   e. pursestring suture
   f. staple placement
   g. Lembert pattern
   h. Cushing pattern
   i. Utrecht stitch
4. **Perform suture/staple removal (3).**
5. **Demonstrate proper bandaging techniques.**
   a. Robert-Jones
   b. Simple bandage (2)
   c. Cast
   d. Splint
6. **Perform wound management in at least three species (3).**
7. **Discuss post-operative case management with a client.**
   a. canine (5)
   b. feline (5)
   c. equine (5)
   d one other species
8. **Perform OHE.**
   a. canine (5)
   b. feline (3)
9. **Perform neuter.**
   a. canine (5)
   b. feline (3)
   c. one other species
10. **Perform skin laceration repair or simple mass removal.**
11. **Perform a skin biopsy and prepare for histopathology and culture/sensitivity.**
12. **Perform dental prophylaxis in at least two species (2).**
13. **Perform tooth extraction.**
14. **Prepare and sterilize a surgery pack (3).**
15. **Scrub in and participate in an exploratory laparotomy (2).**
16. **Perform external bone fixation on plastic bones.**
17. **Discuss the diagnosis and treatment of cranial cruciate injury in a canine.**
18. **Participate in evaluation of a joint injury/disease in at least two species.**
19. **Discuss the diagnosis and treatment of patellar luxation in a canine.**
20. **Discuss methods of fixation for common fractures in small animal species.**
21. **Participate in management of surgical referral patients.**
    a. small animal species (10)
    b. equine (5)
    c. one other species
22. **Perform or discuss procedure for wedge biopsy of the liver.**
23. **Perform or discuss procedure for full-thickness intestinal biopsies.**

DAY ONE CORE COMPETENCIES FOR TAMU DVM CURRICULUM

V. Basic Medicine Skills, Experience, and Case Management (80%)

1. **Obtain a complete individual patient or herd history, including the chief complaint, history of present illness, and past history.**
   a. canine (10)
   b. feline (10)
   c. equine (10)
   d. bovine (2)
   e. other species (5)
2. **Participate in case management of medicine referral cases.**
   a. canine (10)
   b. feline (10)
   c. equine (10)
   d other species (3)
3. **Evaluate and properly record medical records for a case involving a population of animals in at least two species (3).**
4. **Properly place a nasogastric tube in a horse (5).**
5. **Calculate correct dosages and dosing intervals for medications to be administered in TAMU patients.**
   a. oral (10)
   b. SQ/IM (10)
   c. IV (10)
   d. ophthalmic (5)
6. **Place a catheter in the:**
   a. jugular vein; any species (5)
   b. cephalic vein; small animals (10)
   c. lateral saphenous vein; small animals (2)
   d Intraosseous: any species
7. **Discuss normal reproductive behaviors including estrous cycles and gestation periods.**
   a. canine
   b. feline
   c. equine
   d. bovine
   e. ovine
   f. caprine
   g. porcine
8. **Discuss the normal birthing process and how to recognize abnormalities in:**
   a. small animal species
   b. equine
   c. food animal
9. **Discuss neonatal care (normal nursing behavior, weaning procedures).**
   a. small animal
   b. large animal
10. **Palpate and express anal sacs; canine (2)**
11. **Demonstrate proper restraint techniques.**
    a. Small canine including placing gauze and nylon muzzle.
    b. Large canine including placing gauze and nylon muzzle.
    c. Feline including picking up a fractious cat and placing a rigid e-collar.
    d. Equine including:
       1) lip twitch
       2) lip chain
       3) halter and lead
       4) move into and out of stocks
       5) foal restraint

e. Bovine including:
   1) halter and lead
   2) move into and out of a chute
   3) nose tongs
   4) calf restraint
   5) casting (ex., Running W)

f. Small ruminant haltering

g. Other Species
   1) swine (hog snare)
   2) avian
   3) reptile
   4) rodent or rabbit

h. Other techniques
   1) tail tie (equine or bovine)

12. Discuss recognition and handling of aggressive patients.

13. Collect blood via:

a. jugular venipuncture; 4 species (10)
b. cephalic venipuncture; 2 species (10)
c. medial saphenous venipuncture; feline (5)
d. lateral saphenous venipuncture; small animal or exotics (5)
e. tail vein; bovine or reptile (2)
f. facial sinus; equine (2)

14. Collect a urine sample via cystocentesis via palpation or blind technique (5).

15. Collect a urine specimen via catheterization; any species.

VI. Emergency and Intensive Care Case Management (80%)

1. **Effectively triage emergency patients.**
   a. small animal
   b. large animal
2. **Collect and interpret reliable blood pressure data.**
   a. canine (10)
   b. feline (5)
   c. equine (5)
   d. one other species
3. **Perform centesis of a body cavity.**
4. **Detect ECG abnormalities in at least three species (3).**
5. **Demonstrate a working knowledge of cardiac resuscitation codes and associated client goals.**
6. **Perform CPR on a small animal patient (real or mock).**
7. **Calculate and administer the appropriate fluid type, volume, and rate.**
   a. canine (10)
   b. feline (5)
   c. equine (10)
   d one other species
8. **Outline a specific plan to resuscitate a patient with hypovolemic shock.**
   a. canine
   b. equine
   c one other species
9. **Calculate medication used as a CRI.**
   a. small animal species (2)
   b. large animal species (2)
10. **Demonstrate knowledge of proper nutritional management of a critical care patient.**
11. **Place intranasal O_2 in a small animal species.**
12. **Calculate and discuss appropriate procedures for administering a blood transfusion.**
13. **Demonstrate knowledge of methods for seizure control in a patient with status epilepticus.**
14. **Determine if a dog has laryngeal paralysis.**

DAY ONE CORE COMPETENCIES FOR TAMU DVM CURRICULUM

VII. Health Promotion, Disease Prevention/Biosecurity, Zoonosis, and Food Safety (80%)

1.	**Perform a TB test.**
2.	**Perform a brucellosis card test.**
3.	**Demonstrate an ability to properly interpret a state identification ear tag (i.e., Brucellosis).**
4.	**Demonstrate the ability to accurately complete a state health certificate.**
5.	**Demonstrate the ability to accurately complete the form for federally-regulated diseases (i.e., EIA, Brucellosis, TB).**
6.	**Demonstrate the ability to accurately report foreign animal diseases and emerging diseases.**
7.	**Discuss the environmental health of a production system; any species.**
8.	**Discuss a zoonotic disease with a client/owner (5).**
9.	**Discuss vaccination protocols with a client/owner.**
	a. canine (10)
	b. feline (10)
10.	**Discuss vaccination protocols.**
	a equine (10)
	b food animal (10)
11.	**Discuss protocols associated with biosecurity (i.e., quarantine procedures, transport, physical barriers) in an animal population with a client/owner.**
12.	**Discuss food safety issues with a faculty member (2).**
13.	**Explain a management plan for parasite control to a client/owner.**
	a. small animal (4) to include heartworms, fleas, ticks, and intestinal parasites
	b. equine
	c. food animal
	d. small ruminant
14.	**Perform a preputial wash or scrape on a bull or a vaginal wash on a cow and evaluate the sample for the presence of tritrichomonas foetus using culture and microscopy.**

DAY ONE CORE COMPETENCIES FOR TAMU DVM CURRICULUM

VIII. Client Communication and Ethical Conduct (90%)

1. **Actively participate in 2 ethics sessions with veterinary practitioners.**
2. **Explain a disease process and discharge instructions to a client/owner.**
   a. small animal (20)
   b. equine (20)
   c. other species (5)
3. **Explain wellness and preventative care to a client/owner.**
   a. small animal (20)
   b. equine (10)
   c. other species (5)
4. **Based on actual hospital cases (any species), actively discuss with clinicians the fees charged, different treatment options available to the client, and actual costs of services (10).**
5. **Actively participate in discussion with owner/client regarding:**
   a. euthanasia/grief
   b. emergency treatments
   c. difficult financial decisions
   d. unrealistic owner expectations
   e. verbally abusive client
6. **Based on actual hospital cases (any species), actively discuss with clinicians issues that arise regarding liability and malpractice (10).**
7. **Discuss with a faculty member ethical dilemmas that can arise during the pre-purchase examination of any species.**
8. **Actively participate in discussions with clinicians on animal welfare issues (any species) including:**
   a. abuse
   b. hoarding
   c. shelter management
   d. wildlife issues
   e. slaughter or harvest practices
9. **Actively participate in discussions with clinicians on animal behavioral issues.**
   a. canine (5)
   b. feline (3)
   c. equine (3)
   d. one other species
10. **Be part of a team and demonstrate active participation (10).**
11. **Prepare complete written discharge instructions using appropriate laymen's terminology.**
    a. small animal (20)
    b. equine (20)
    c. one other species (5)

DAY ONE CORE COMPETENCIES FOR TAMU DVM CURRICULUM

IX.	**Strong Appreciation for the Role of Research, Continuing Education, and Professional Participation in Furthering Veterinary Medicine (50%)**
1.	Improve scientific literacy by reading and interpreting information/data from at least 40 research papers (clinical, basic science, epidemiology, etc.).
2.	Participate in a basic science or clinical research setting for at least 50 hours.
3.	Document international experience.
4.	Participate in the summer research program.
5.	Demonstrate being an author or co-author on a publication or poster.
6.	Attend at least 10 journal clubs or resident/intern/faculty seminars.
7.	Document attendance at local, state, or national conferences and attend poster, abstract or continuing education sessions (2).
8.	Make scientific presentations to a TAMU CVMBS club, class, or rounds group (5).
9.	Attend 10 noon or evening club or industry sponsored educational seminars.
10.	Participate and complete DVM/MBA, DVM/PHD, DVM/MS, or DVM/Certificate Program.
11.	Participate in external tours or experiences where biomedical research, animal use, animal welfare, or animal conservation are discussed or implemented (2).
12.	Participate in organized veterinary medicine (SCAVMA, TVMA, etc.).
13.	Actively participate in the CVM Open House for at least 2 years.
14.	Actively participate in at least one SCAVMA-approved organization each year.
15.	Demonstrate being an officer or committee chair in the class or in a SCAVMA-approved organization.