**Advisor Sign off**

<table>
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<tr>
<th>End of 1&lt;sup&gt;st&lt;/sup&gt; year</th>
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<td>End of 2&lt;sup&gt;nd&lt;/sup&gt; year</td>
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<td>Tasks Completed</td>
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*When all tasks are completed, please hand this book into the Office of the Associate Dean for Academic Affairs*
AVMA Statement on Clinical Competencies Outcomes:

Veterinary graduates must have the basic scientific knowledge, skills and values to practice veterinary medicine, independently, at the time of graduation. At a minimum, graduates must be competent in providing entry-level health care for a variety of animal species.

The school/college must develop relevant measures and provide evidence that graduating students have attained the following competencies:
1. comprehensive patient diagnosis (problem solving skills), appropriate use of clinical laboratory testing, and record management
2. comprehensive treatment planning including patient referral when indicated
3. anesthesia and pain management, patient welfare
4. basic surgery skills, experience, and case management
5. basic medicine skills, experience and case management
6. emergency and intensive care case management
7. health promotion, disease prevention/biosecurity, zoonosis, and food safety
8. client communications and ethical conduct
9. critical analysis of new information and research findings relevant to veterinary medicine.

GENERAL GUIDELINES

Skills must be signed off by an NCSU faculty or staff member unless a practice training program has been approved or the skill is starred. Approved practice training programs are listed on the Clinical Competencies website. Starred skills may be signed off during any extramural practice experience.

ESSENTIAL MATERIAL:
EVERY VETERINARY STUDENT MUST GET SIGNED OFF ON THE FOLLOWING

• Act as primary surgeon for at least 10 surgical procedures, including feline castration, feline spay, canine castration, and canine spay.
• Attend one approved diversity training experience (i.e. Cultural Awareness Seminar) each of the first three years of veterinary college
• One research-related educational experience before graduation, including those students with a graduate degree.
• Completed required sections of the Emerging and Exotic Diseases of Animals (EEDA) and USDA Initial Accreditation Training (IAT) online learning modules and obtain IAT certificate

CORE MATERIAL:
90% OF THE FOLLOWING SKILLS MUST BE COMPLETED BEFORE GRADUATION

Husbandry/Restraint/Routine Client Education skills

• Demonstrate the ability to identify the major categories for common domestic species. Includes being able to identify yearling heifer, steer calf, brood cow, etc. Identify common coat colors in the horse, mare, gelding, stallion, foal, yearling.
• Demonstrate the ability to safely catch and restrain a horse, a cow, a pig and a sheep. Includes haltering, leading, twitching, restraining for venipuncture, and picking up feet.
• Demonstrate a quick release knot and a quick-release halter tie or a quick release tail tie.
• Demonstrate the ability to safely catch and restrain a dog, a cat, a bird species, a reptile species, one small mammal other than a dog or cat.
• Demonstrate the ability to observe animal and state whether behaviors observed are normal/abnormal, one large animal species, one small animal species, one species of your choice
• Demonstrate the ability to identify and evaluate basic large animal foods types: at least 3 types of hay, 2 types of grain, 2 major pig feeds
• Demonstrate ability to counsel potential owner on pet/animal selection criteria (eg:spp/breed vs. owner lifestyle)*
• Demonstrate ability to educate owner regarding the biological needs (housing, routine care, general feeding guidelines) of one small animal and one large animal species*
• Demonstrate ability to educate owner regarding the socialization, behavioral needs, and training (including housetraining, if appropriate) of one small animal and one large animal species*
• Demonstrate ability to educate owner regarding routine reproduction of one small animal and one large animal species*
• Demonstrate ability to counsel owner on core vaccination requirements for one small animal and one large animal species*
• Demonstrate ability to counsel owner on parasite control regimes for one small animal and one large animal species*
• Demonstrate the ability to counsel potential owner on selection of, biological requirements of, and proper husbandry techniques for a zoological species commonly seen in practice.*
• Load and operate projectile drug delivery device.
• Demonstrate nutritional assessment for any species
• Develop a complete wellness lifestage feeding plan for any species

**Physical exam skills**

• Perform basic physical exam dog, cat, horse, cow or small ruminant, pig, one reptile species, one bird species, one small mammal other than dog or cat, one other species of your choice. Includes TPR, demonstrating the ability to localize and describe sounds in the thorax, localize and demonstrate organs within the abdomen, demonstrate abdominal palpation and auscultation. Must know normal TPR for a small mammal, dog, cat, horse, and cow. Must be able to name and identify major lymph nodes in appropriate species. Must be able to perform rectal exam and express anal sacs in dog.
• Body condition scoring in dog, cat, horse, cow
Perform the following specialty exams:

**Orthopedic (lameness) exam** on a small animal patient and a horse, including naming and identification of all major joints, recognizing normal angles and range of motion for major joints and the hoof, use of a goniometer, use of a hoof tester, use of a hoof pick, use of a hoof gauge, flexion tests, thigh circumference measurement in dog.

**Neurologic exam** small animal patient, horse, must demonstrate:

- Patellar reflex
- Withdrawal reflex
- Panniculus reflex
- Deep pain assessment
- Menace response
- Palpebral reflex
- Pupillary light reflex
- Conscious proprioception
- Hopping
- Bladder palpation/expression

**Ophthalmic exam**, including use of direct and indirect ophthalmoscope, ocular pressure measurement, small animal patient, horse. Must demonstrate:

- Menace response
- Pupillary light reflex
- Dazzle reflex
- Schirmer tear test
- Fluoroscein staining

**Dermatologic exam**, as appropriate for patient, must demonstrate:

- General dermatologic exam
- Recognize primary and secondary dermatological lesions
- Otic examination
- Skin scrapings - deep / superficial
- Skin cytology - tape/swab/aspiration
Otic cytology
Appropriate methods of collection of samples for bacterial / fungal culture
Woods lamp examination
Trichogram

**Cardiovascular exam**, including identifying, describing, and assessing the clinical significance of transient heart sounds and murmurs, examining arterial and venous pulses, obtaining a resting standard 6-lead EKG, accurately measuring noninvasive arterial blood pressure in small and large animal patients

**Oncologic exam**, including identification of peripheral lymph nodes in the dog or cat and performance of fine needle aspiration of a lymph node or mass

**Reproductive exam**
- Obtain and interpret a vaginal smear in the bitch.
- Conduct a pregnancy exam on a bovine, equine, and canine female.
- Prepare and evaluate semen from either a stallion, bull, or a stud dog.
- Conduct an examination of the external genitalia of the intact bovine, canine, and equine male and female.
- Properly describe and correct malpresentations, positions, and postures in a case of bovine or equine dystocia. They should also be able to place obstetrical chains properly on either the fore or rear limbs of a bovine or equine fetus.

**Sample taking**
- Obtain a blood sample dog, cat, horse, cow, sheep, pig, one bird species, one reptile species, one small mammal other than dog or cat, one other species of your choice.
- Collect blood using needle and syringe
- Collect blood using vacutainer.
• Obtain a urine sample using catheterization
• Obtain a urine sample using cystocentesis
• Obtain a milk sample from a cow for mastitis evaluation
• Obtain a fecal sample
• Obtain a cloacal culture (bird)

Radiology, Necropsy, Clinical Pathology, Parasitology

• Perform radiographic exams for 5 patients (position, create, process, interpret radiographs)
• Perform complete necropsy on two mammalian species, one species of choice.
• Collect samples appropriate for 1) biopsy submission from 3 tissue types, 2) microbiological sampling, 3) toxicologic sampling.
• Be able to select a pig from a group for post-mortem examination. In the pig, be able to identify major lymph nodes, tonsils, area of lung most affected by pneumonia, sites of ulcers.
• Process a blood sample (PCV, TS, glucose, BUN, prepare and stain a blood smear, do a blood smear differential, estimate platelet count)
• Process a urine sample (reagent strip, specific gravity, sediment exam)
• Examine a fecal sample for parasites (direct smear, McMaster’s technique, centrifugation, double centrifugation)
• Microfilaria ID in blood drop
• Microscope technique specific to parasitology specimens
• Perform an ELISA test
• Demonstrate the Gram stain technique

Basic medicine skills, experience, problem solving and case management

• Obtain a complete clinical history for 5 patients. Obtain client histories with clinician supervision, demonstrating appropriate body language, eye contact, appropriate language, respect for client’s emotions and view of the problem.
• Define “chief complaint” and create a prioritized problem list for 6 patients, including one special species patient.
• Based on the patient’s problem list, make a differential diagnosis list for 5 patients, including one special species patient.
• Based on the patient’s differential diagnosis list, choose the appropriate diagnostic tests for 5 patients.
• Create a problem-oriented medical record for 5 patients, demonstrating ability to organize and succinctly state facts and opinions with correct spelling and punctuation.
• Provide oral summary of 5 cases for peers, demonstrating organization and precise language
• Create laboratory flow sheet for 2 individual animals, demonstrate case management using flow sheet
• Follow 5 patients through treatment of a problem
• Discuss case progress with 5 clients, demonstrating ability to address client concerns, to discuss financial matters, empathy with client, appropriate boundaries with client
• Provide oral discharge instructions for 5 clients, demonstrating solicitation of client feedback to assure that the instructions are understood, solicitation of client’s point of view and concerns regarding ability to provide treatment, appropriate demonstration of techniques
• Write 5 discharge instructions, demonstrating ability to organize and succinctly state facts and opinions with correct spelling and punctuation
• Perform follow up phone calls on 5 patients to assure problem resolution or need for continuing diagnostics/therapy
• Participate in medical primary care clinic at least 5 days (wellness clinic, shelter, vaccination clinic, practice)
• Participate in the management of at least 5 medical referral patients (any species)
• Evaluate, workup and properly record a case involving a population of animals.
• Demonstrate oral administration of medications horse, ruminant, dog, cat, one bird species, one reptile species, one small mammal other than dog or cat, one other species of your choice. Includes
demonstrating tablet administration, or the use of an oral dose syringe, as appropriate.

- Demonstrate SC administration of medication large animal, small animal, one bird species, one reptile species, one small mammal other than dog or cat, one other species of your choice.
- Demonstrate IM administration of medication large animal, small animal, one bird species, one amphibian/reptile species, one small mammal species, one other species of your choice. Includes being able to show landmarks for muscle groups, knowing muscles used in food animals, knowing pros and cons of each injection site. Specifically be able to discuss sites used for vaccines, large volumes (procaine penicillin in the horse), iron shots in pigs.
- Demonstrate bolus IV administration of medication large animal, small animal, other species of choice. Be able to discuss how to manage perivascular injection of a caustic material.
- Choose, calculate amounts and administer intravenous fluids to 7 animals.
- Place IV or IO catheter in 1 bird and calculate fluid amounts for 1 avian patient.
- Choose and calculate correct drug dosages for 8 animals, including one patient receiving constant rate infusion drugs and one bird species, one amphibian/reptile species, one small mammal other than dog or cat.
- Write 5 outpatient prescriptions in a format that would allow them to be filled at a compounding or human pharmacy.
- Administer 5 controlled drugs, keeping correct records for each drug.
- Be able to load and operate a projectile drug delivery device (blow gun, air rifle, pole syringe).
- Demonstrate ability to evaluate and suggest treatment for a common behavioral problem, such as feline house soiling.
- Articulate the rationale for recommending a given diet for a given disease state.

Anesthesia and pain management, patient welfare
• Identify parts of an anesthesia machine
• Put together a circle system
• Put together a non-rebreathing system
• Place IV catheter in 3 small animals (dog, cat, small mammal)
• Intubate 6 small animals, including at least 2 cats. Intubate or assist intubation of one bird species, one reptile species.
• Place blood pressure, ECG, and pulse oximetry monitors on 3 patients
• Perform anesthesia on 5 small animals, including record keeping and demonstrating knowledge of monitoring equipment, anesthesia/analgesia
• Perform anesthesia or sedation on a small mammal.
• Perform anesthesia on 1 large animal, including record keeping and demonstrating knowledge of monitoring equipment, anesthesia/analgesia
• Calculate and administer constant rate IV drug infusion.
• Design pain management/anesthesia regime for 3 small animal surgical patients
• Design pain management/anesthesia regime for 1 large animal surgical patient
• Design pain management/anesthesia regime for 1 special species patient
• Design chronic pain management treatment (any species)
• Perform pain scoring on 5 patients (any species)
• Perform 3 local analgesic blocks on any species. Be able to demonstrate the landmarks for commonly used local blocks (dehorning, standing procedures in ruminants, declaw surgery in cats, etc)
• Perform 1 epidural on any species
• Participate in one euthanasia (any species) and explain indications and methods of euthanasia, including methods appropriate for zoological species commonly seen in practice
• Educate one lay person on an animal welfare issue

**Dentistry**
• Dental exam on small animal patient, including charting of lesions
• Dental exam on a large animal patient, demonstrating the ability to age a horse and a cow by its teeth. Know eruption times used for aging immature animals.
• Demonstrate canine or feline dental cleaning and extraction

**Basic surgery skills, experience, and case management**

• Demonstrate knot tying (square knot, friction knot, one hand tie, two hand tie, instrument tie)
• Demonstrate correct instrument handling (three point grip, pencil grip, suture cutting)
• Demonstrate basic suturing techniques (simple interrupted, simple continuous, Connell, Cushing, Lembert, Ford interlocking, horizontal mattress, vertical mattress)
• Demonstrate pack preparation
• Demonstrate patient preparation
• Demonstrate sterile technique (scrubbing, gowning, gloving, draping, ability to keep a sterile field)
• Demonstrate wound closure, stent use, placement of mattress sutures
• Demonstrate drain placement
• Demonstrate bandaging techniques, small animal
• Demonstrate emergency bandaging techniques, large animal
• Demonstrate bandaging of an open wound (wet-dry bandage).
• Demonstrate suture or staple removal
• Act as primary surgeon for at least 10 surgical procedures, including feline castration, feline spay, canine castration, and canine spay. (LIST SURGERY PROCEDURES AT TIME OF SIGN OFF).
• Participate in the management of at least 5 surgical referral patients (any species)

**Emergency and intensive care case management**
• Demonstrate thoracocentesis in small animal patient
• Demonstrate abdominocentesis
• Demonstrate tracheostomy
• Demonstrate administration of nasal oxygen
• Demonstrate technique for gaining emergency venous access
• Demonstrate CPR for a small animal patient
• Demonstrate working knowledge of cardiac resuscitation drugs and goals for a small animal patient
• Outline steps for resuscitation of either a large or small animal in hypovolemic or septic shock including: goals of therapy, fluid therapy (choice of fluid, rate and amount, IV catheter choice), drug therapy and monitoring response of therapy.

**Health promotion, disease prevention, zoonosis and food safety**

• Health promotion/disease prevention
• See restraint/husbandry/routine education/TAU sections
• Demonstrate ability to educate lay person(s) on 5 zoonotic diseases including at least one that involves zoological species*
• Demonstrate ability to educate lay person(s) on 5 diseases transmitted by food, the role of the veterinarian in preventing transmission, and the precautions the lay person should take*
• Design a population based disease control or prevention plan.
• Demonstrate proficiency in planning and execution of a simulated or real outbreak investigation.
• Be able to articulate and provide examples of how veterinarians in public practice promote and protect public and animal health.
• Evaluate a veterinary clinical facility for environmentally responsible clinical practices including disposal of discarded therapeutic agents, energy conservation, and emissions/discharge management.*
• Evaluate a facility housing large numbers of animals (shelter, farm, zoo, lab animal) for environmentally responsible practices including waste disposal, human/production animal/wildlife
interactions, energy conservation, and emissions/discharge management. *

• Fill out and complete a Coggins test form
• Complete a health certificate
• Complete Credentialed Responder Training
• Complete Certified Rabies Vaccinator Training

**Client communications and ethical conduct**

• Present one ethical dilemma facing an individual veterinarian or the profession, demonstrate ability to choose a position based on system of values
• Demonstrate the ability to educate lay person(s) on an ethical or welfare issue
• Written Communication: See Medicine skills
• Oral Communication: See Medicine skills, Animal Welfare
• Client sensitivity/Grief counseling: Participate in counseling of a client that has lost an animal or explain stages of grief and techniques for helping client deal with loss *
• Teamwork: Be a member of 5 teams and receive passing grades for team participation skills
• Conflict resolution: Present one legal/conflict issue, demonstrating knowledge of the legal issue, both points of view in conflict, suggest possible resolution
• Diversity Training: Attend one approved diversity training experience (i.e. Cultural Awareness Seminar) each of the first three years of veterinary college

**Strong appreciation for the role of research in furthering the practice of veterinary medicine.**

Each DVM student is required to have one research-related educational experience before graduation, including those students with a graduate degree. Such experiences could include, but are not limited to:

1. Being in the Clinician Scientist Focus Area, with completion of its
research requirements.

2. Performing a summer of approved research at NCSU or another institution. (Previous research work will not qualify.)


4. Successful completion of a research-related selective (i.e. Intro to Research at the CVM, Molecular Medicine Initiative selectives, research selectives personally arranged or already existing such as Advanced Pathology)

5. Attending a research-related conference and supplying a three-page report to your advisor on the experience.

6. Attending the annual CVM Research Forum and supplying a three-page report to your advisor on the experience.

7. Attending a research seminar at the CVM, elsewhere at NCSU or at another institution and writing a three-page report on the seminar and one related publication. (Attending clinical conference is not included.) Hand in the report to your advisor.

8. Writing and submitting a research proposal to an extramural funding agency.

9. Research experiences in Special Topics courses (i.e. Swine Medicine).

10. Being an author on a research paper (not a case report) while in veterinary college
The following skills will be checked off in Health Maintenance and Animal Production I, II, III
Teaching Animal Unit

Must Learn Skills

Equine:
Approach, catch and halter a horse
Lead and turn a horse at the walk
Lead a horse at the trot
Pick up and hold a forelimb and hind limb of a horse
Groom a horse
Use hoof testers
Tie a quick release knot
Use a weight tape
Perform physical exam on adult horse
Perform physical exam on neonatal foal
Perform ocular exam
Place nose twitch
Perform skin fold twitch
Perform ear twitch
Place chain shank over nose
Place chain shank over lip
Complete written physical exam form
Collect blood into a vacutainer
Collect blood using a needle and syringe
Administer an oral medication
Administer an intramuscular injection
Administer an intravenous injection
Administer a subcutaneous injection
Fill out and complete a Coggins test form
Complete a health certificate
Perform lameness exam (including all flexion tests)
Perform neurological exam (including cranial nerve and movement exam)
Pass nasogastric tube

**Cattle:**
Herding Animals
Correctly halter a cow
Tie a quick release knot
Cast a cow with a rope
Perform a Physical exam
Identify methods of identification of animals
Body condition scoring and relation to life cycle
Collect blood sample from jugular
Collect blood sample from the tail vein
Perform and interpret a TB test
Injection site identification (Beef Quality Assurance)
Identify and perform an intramuscular injection
Identify and perform an intravenous injection
Identify and perform subcutaneous injection
Identify needle sizes for IM, SQ, and IV injections
Administer an oral bolus to at least 2 cows
Pass a stomach tube and administer oral fluids

Processing calves:
  - Know how to perform all procedures
  - Actively perform at least two procedures (tattooing, castration, dis-budding, implanting)

Pregnancy check > 5months
Collect a sterile milk sample
Perform a CMT test
Interpret a CMT test
Properly use a hoof knife
Restrain and lift a foot for trimming or lameness evaluation

**Sheep/Goats**
Know and use FAMACHA system for parasite control
Blood collection from jugular vein
Identify jugular landmarks, lung fields, rumen location
Determine age of goats or sheep
Perform vaccinations
Perform intramuscular injection (identify sites)
Perform subcutaneous injection (identify sites)
Perform a foot trim
Body condition score a goat or sheep
TB test a goat or sheep
Disbudding procedures and nerve blocks (goat only)
Perform an ultrasound pregnancy diagnosis
Interpret an ultrasound diagnosis
Perform a physical exam
Interpret ultrasound pregnancy diagnosis
Restrain a sheep or goat
Administer an oral medication to a sheep or goat

**Swine:**
Safely restrain suckling, nursery, and finisher pigs
Safely move nursery or finisher pigs between pens or sort within pen
Identify which TAU pig housing facilities are for what age groups
Interpret average/expected litter size data
Be able to list pros and cons of breeding herd housing systems
Identify the major feed ingredients in pig rations
Describe and recognize normal feeding behavior
Perform pregnancy diagnosis in female pigs using different methods
Identify signs of estrus in the female pig
Complete physical examinations on individuals and groups of pigs
Restrain and collect blood from nursery and/or finishing age pigs
List the key criteria for selection of optimal pigs for diagnostic testing
Identify these key diagnostically significant anatomic structures:
  Tonsils, turbinates, region of stomach prone to ulcers, ileum, spiral colon, lung lobes, lymph nodes

**Poultry:**
Catch and safely restrain a turkey for physical examination
Catch and safely restrain a chicken for physical examination
Perform a basic physical examination on turkey
Perform a basic physical examination on a chicken
Evaluate general health status of a turkey flock
Evaluate general health status of a chicken flock
Perform a cloacal swab on a turkey
Perform a cloacal swab on a chicken
Perform a tracheal swab on a turkey
Perform a choanal swab on a turkey
Collect a blood sample via wing vein on a turkey
Collect a blood sample via wing vein on a chicken
Perform a subcutaneous injection on a turkey
Perform an intramuscular injection on a turkey

**FOCUS AREA MATERIAL:**

**EACH FOCUS AREA WILL DETERMINE REQUIRED TASKS FOR STUDENTS IN THE FOCUS AREA**
A: Cast cow with rope

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

B: Place halter

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

C: Quick release knot

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

D: Collect blood, tail vein

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production
E: Classify: heifer, steer calf, brood cow etc

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production

F: Herd animals

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production

G: Identify Animal ID methods

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production

H: Body condition score, relate to life cycle

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production
I: Complete Physical exam

Sign-Offs:

Cow

Offered in Courses...

VMP 916/936/956 Health Maintenance and Animal Production

J: Administer oral bolus,, at least 2 cows

Sign-Offs:

Cow

Offered in Courses...

VMP 916/936/956 Health Maintenance and Animal Production

K: Collect blood, jugular

Sign-Offs:

Cow

Offered in Courses...

VMP 916/936/956 Health Maintenance and Animal Production

L: IV injection, ID needle sizes

Sign-Offs:

Cow

Offered in Courses...

VMP 916/936/956 Health Maintenance and Animal Production
M: Pass stomach tube, give oral fluids

_Sign-Offs:_

Cow

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production

N: Perform and interpret TB test

_Sign-Offs:_

Cow

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production

O: IM injection, ID needle sizes

_Sign-Offs:_

Cow

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production

P: Injection site ID, (Beef Quality Assurance)
VMP 916/936/956
Health Maintenance and Animal Production

Q: SC injection, ID needle sizes

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

R: Collect sterile milk sample

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

S: Perform CMT test

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

T: Interpret CMT test

Sign-Offs:
Cow

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

CVM Clinical Competencies 5
VMP 916/936/956
Health Maintenance and Animal Production

U: Demo 2 procedures to process calves

**Sign-Offs:**
Cow

**Offered in Courses...**
VMP 916/936/956  Health Maintenance and Animal Production

V: Use hoof knife properly

**Sign-Offs:**
Cow

**Offered in Courses...**
VMP 916/936/956  Health Maintenance and Animal Production

W: Restrain and lift foot for trim or lameness exam

**Sign-Offs:**
Cow

**Offered in Courses...**
VMP 916/936/956  Health Maintenance and Animal Production

X: Pregnancy check > 5 months

**Sign-Offs:**
Cow

**Offered in Courses...**
VMP 916/936/956  Health Maintenance and Animal Production
VMP 916/936/956
Health Maintenance and Animal Production

TAU: Horse

A: Approach, catch, halter

Sign-Offs:

Horse

Offered in Courses...
VMP 916/936/956   Health Maintenance and Animal Production

B: Lead and turn at walk

Sign-Offs:

Horse

Offered in Courses...
VMP 916/936/956   Health Maintenance and Animal Production

C: Lead at trot

Sign-Offs:

Horse

Offered in Courses...
VMP 916/936/956   Health Maintenance and Animal Production

D: Groom

Sign-Offs:

Horse

Offered in Courses...
VMP 916/936/956   Health Maintenance and Animal Production
E: Use weight tape

Sign-Offs:

Horse

Offered in Courses...

VMP 916/936/956 Health Maintenance and Animal Production

F: Tie quick release knot

Sign-Offs:

Horse

Offered in Courses...

VMP 916/936/956 Health Maintenance and Animal Production

G: Pick up and hold forelimb, hindlimb

Sign-Offs:

Horse

Offered in Courses...

VMP 916/936/956 Health Maintenance and Animal Production

H: Use hoof testers

Sign-Offs:

Horse

Offered in Courses...

VMP 916/936/956 Health Maintenance and Animal Production
I: Chain shank, lip

**Sign-Offs:**

Horse

**Offered in Courses...**

VMP 916/936/956  Health Maintenance and Animal Production

J: Chain shank, nose

**Sign-Offs:**

Horse

**Offered in Courses...**

VMP 916/936/956  Health Maintenance and Animal Production

K: Skin Fold Twitch

**Sign-Offs:**

Horse

**Offered in Courses...**

VMP 916/936/956  Health Maintenance and Animal Production

L: Ear Twitch

**Sign-Offs:**

Horse

**Offered in Courses...**

VMP 916/936/956  Health Maintenance and Animal Production
VMP 916/936/956
Health Maintenance and Animal Production

M: Nose Twitch

*Sign-Offs:*

Horse

*Offered in Courses...*

VMP 916/936/956  Health Maintenance and Animal Production

N: Ocular exam (include PLR, menace, dazzle)

*Sign-Offs:*

Horse

*Offered in Courses...*

VMP 916/936/956  Health Maintenance and Animal Production

O: Complete physical exam, adult

*Sign-Offs:*

Horse

*Offered in Courses...*

VMP 916/936/956  Health Maintenance and Animal Production

P: Complete physical exam, foal

*Sign-Offs:*

Horse

*Offered in Courses...*

VMP 916/936/956  Health Maintenance and Animal Production
Q: Complete written PE form

Sign-Offs:
Horse

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production

R: Classify: mare, gelding, stallion, foal, yearling

Sign-Offs:
Horse

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production

T: Collect blood into vacutainer

Sign-Offs:
Horse

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production

U: Collect blood using needle and syringe

Sign-Offs:
Horse

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production
VMP 916/936/956
Health Maintenance and Animal Production

V: Administer SC injection

Sign-Offs:
- Horse

Offered in Courses...
- VMP 916/936/956  Health Maintenance and Animal Production

W: Administer IM injection

Sign-Offs:
- Horse

Offered in Courses...
- VMP 916/936/956  Health Maintenance and Animal Production

X: Administer IV injection

Sign-Offs:
- Horse

Offered in Courses...
- VMP 916/936/956  Health Maintenance and Animal Production

Y: Demo oral administration medicine

Sign-Offs:
- Horse

Offered in Courses...
- VMP 916/936/956  Health Maintenance and Animal Production
Z: Fill out Coggins form

*Sign-Offs:*

Horse

*Offered in Courses...*

VMP 916/936/956  Health Maintenance and Animal Production

ZA: Health certificate

*Sign-Offs:*

Horse

*Offered in Courses...*

VMP 916/936/956  Health Maintenance and Animal Production

ZB: Demo use hoof pick, hoof gauge, flexion tests

*Sign-Offs:*

Horse

*Offered in Courses...*

VMP 916/936/956  Health Maintenance and Animal Production

ZC: Lameness exam, include flexion tests

*Sign-Offs:*

Horse

*Offered in Courses...*

VMP 916/936/956  Health Maintenance and Animal Production
ZD: Neuro exam, include cranial nerve, movement

Sign-Offs:
Horse

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

ZE: Pass nasogastric tube

Sign-Offs:
Horse

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production
1: Catch and restrain chicken

**Sign-Offs:**
- Poultry

**Offered in Courses...**
- VMP 916/936/956 Health Maintenance and Animal Production

2: Basic physical exam chicken

**Sign-Offs:**
- Poultry

**Offered in Courses...**
- VMP 916/936/956 Health Maintenance and Animal Production

3: Evaluate general health status chicken flock

**Sign-Offs:**
- Poultry

**Offered in Courses...**
- VMP 916/936/956 Health Maintenance and Animal Production

4: Collect wing vein blood sample chicken

**Sign-Offs:**
- Poultry

**Offered in Courses...**
- VMP 916/936/956 Health Maintenance and Animal Production
5: Perform choanal swab chicken

Sign-Offs:

Poultry

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production

6: Perform cloacal swab chicken

Sign-Offs:

Poultry

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production
1: Catch and restrain turkey

**Sign-Offs:**

- Poultry

**Offered in Courses...**

- VMP 916/936/956 Health Maintenance and Animal Production

2: Basic physical exam turkey

**Sign-Offs:**

- Poultry

**Offered in Courses...**

- VMP 916/936/956 Health Maintenance and Animal Production

3: Evaluate general health status turkey flock

**Sign-Offs:**

- Poultry

**Offered in Courses...**

- VMP 916/936/956 Health Maintenance and Animal Production

4: Collect wing vein blood sample turkey

**Sign-Offs:**

- Poultry

**Offered in Courses...**

- VMP 916/936/956 Health Maintenance and Animal Production
5: Perform cloacal swab turkey

*Sign-Offs:*
- Poultry

*Offered in Courses...*
- VMP 916/936/956 Health Maintenance and Animal Production

6: Perform IM injection turkey

*Sign-Offs:*
- Poultry

*Offered in Courses...*
- VMP 916/936/956 Health Maintenance and Animal Production

7: Perform SC injection turkey

*Sign-Offs:*
- Poultry

*Offered in Courses...*
- VMP 916/936/956 Health Maintenance and Animal Production

8: Perform tracheal swab turkey

*Sign-Offs:*
- Poultry

*Offered in Courses...*
- VMP 916/936/956 Health Maintenance and Animal Production
TAU: Small Ruminant

A: Restrain sheep or goat

Sign-Offs:
Small Ruminant

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

B: Physical exam (TWO)

Sign-Offs:
Small Ruminant

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

C: ID landmarks: jugular, lung, rumen

Sign-Offs:
Small Ruminant

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

D: Determine age

Sign-Offs:
Small Ruminant

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production
E: Blood collection, jugular

Sign-Offs:
Small Ruminant

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

F: Use FAMACHA system for parasite control

Sign-Offs:
Small Ruminant

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

G: Nerve block and disbud goat

Sign-Offs:
Small Ruminant

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production

H: Demo 2 processing procedures lambs/kids

Sign-Offs:
Small Ruminant

Offered in Courses...
VMP 916/936/956 Health Maintenance and Animal Production
I: Body condition score

**Sign-Offs:**
Small Ruminant

**Offered in Courses...**
VMP 916/936/956  Health Maintenance and Animal Production

J: ID IM inject sites and inject

**Sign-Offs:**
Small Ruminant

**Offered in Courses...**
VMP 916/936/956  Health Maintenance and Animal Production

K: ID SC inject sites and inject

**Sign-Offs:**
Small Ruminant

**Offered in Courses...**
VMP 916/936/956  Health Maintenance and Animal Production

L: Animal ID methods: small ruminants

**Sign-Offs:**
Small Ruminant

**Offered in Courses...**
VMP 916/936/956  Health Maintenance and Animal Production
M: Administer oral medication

*Sign-Offs:*
   Small Ruminant

*Offered in Courses...*
   VMP 916/936/956 Health Maintenance and Animal Production

N: Vaccinate

*Sign-Offs:*
   Small Ruminant

*Offered in Courses...*
   VMP 916/936/956 Health Maintenance and Animal Production

O: Perform foot trim

*Sign-Offs:*
   Small Ruminant

*Offered in Courses...*
   VMP 916/936/956 Health Maintenance and Animal Production

P: Perform ultrasound pregnancy dx

*Sign-Offs:*
   Small Ruminant

*Offered in Courses...*
   VMP 916/936/956 Health Maintenance and Animal Production
Q: Interpret ultrasound finding

*Sign-Offs:*

Small Ruminant

*Offered in Courses...*

VMP 916/936/956  Health Maintenance and Animal Production

CVM Clinical Competencies 23
VMP 916/936/956
Health Maintenance and Animal Production

TAU: Swine

A: Restrain suckling, nursery, finisher pigs

Sign-Offs:

Pig

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production

B: Move nursery/finisher pigs between pens or sort

Sign-Offs:

Pig

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production

C: ID which TAU pig unit houses which age pig

Sign-Offs:

Pig

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production

D: Explain average/expected litter size

Sign-Offs:

Pig

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production
E: State pros/cons breeding herd housing systems

Sign-Offs:  
Pig

Offered in Courses...  
VMP 916/936/956  Health Maintenance and Animal Production

F: ID major ingredients, pig rations

Sign-Offs:  
Pig

Offered in Courses...  
VMP 916/936/956  Health Maintenance and Animal Production

G: Recognize normal/abnormal feeding behavior

Sign-Offs:  
Pig

Offered in Courses...  
VMP 916/936/956  Health Maintenance and Animal Production

H: Perform pregnancy dx, use different methods

Sign-Offs:  
Pig

Offered in Courses...  
VMP 916/936/956  Health Maintenance and Animal Production
VMP 916/936/956
Health Maintenance and Animal Production

I: ID signs of estrus, female pig

Sign-Offs:
Pig

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production

J: Physical exams: individual/group pigs

Sign-Offs:
Pig

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production

K: Collect blood nursery and/or finisher pigs

Sign-Offs:
Pig

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production

L: List criteria: picking pigs for dx testing

Sign-Offs:
Pig

Offered in Courses...
VMP 916/936/956  Health Maintenance and Animal Production
M: ID tonsils, turbinates

Sign-Offs:

Pig

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production

N: ID region of stomach prone to ulcers

Sign-Offs:

Pig

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production

O: ID ileum, spiral colon, lung lobes, lymph nodes

Sign-Offs:

Pig

Offered in Courses...

VMP 916/936/956  Health Maintenance and Animal Production
VMC 937
Intro to Physical Examination Skills

Medicine: Techniques

Demo IV medication administration

Sign-Offs:
- Any species
- Small Animal

Offered in Courses...
- VMC 937 Intro to Physical Examination Skills
- VMC 932 Principles of Surgery
- VMC 957 Intro to Clinical Practice
- Clinics Fourth Year clinics

Demo oral admin medicine (tablet, dose syringe)

Sign-Offs:
- Any species
- Dog

Offered in Courses...
- VMC 937 Intro to Physical Examination Skills
- VMC 932 Principles of Surgery
- Clinics Fourth Year clinics
VMC 937
Intro to Physical Examination Skills

Demo SC medication administration

Sign-Offs:
- Any species
- Small Animal

Offered in Courses...
- VMC 937 Intro to Physical Examination Skills
- VMC 932 Principles of Surgery
- Clinics Fourth Year clinics

Obtain catheterized urine sample

Sign-Offs:
- Any species

Offered in Courses...
- VMC 937 Intro to Physical Examination Skills
Physical Exam: A General Exam

Do body condition score Dog

*Sign-Offs:*

Dog

*Offered in Courses...*

VMC 937 Intro to Physical Examination Skills

General physical exam

*Sign-Offs:*

Dog

*Offered in Courses...*

VMC 937 Intro to Physical Examination Skills

TPR, perform and know normal

*Sign-Offs:*

Dog

*Offered in Courses...*

VMC 937 Intro to Physical Examination Skills
VMC 937
Intro to Physical Examination Skills

Physical exam: CV

ID heart sounds

Sign-Offs:
Small Animal

Offered in Courses...
VMC 937 Intro to Physical Examination Skills

ID sites of obtain pulses

Sign-Offs:
Small Animal

Offered in Courses...
VMC 937 Intro to Physical Examination Skills
VMC 937
Intro to Physical Examination Skills

Physical exam: Neuro

Bladder palpate/express

**Sign-Offs:**
Small Animal

**Offered in Courses...**
VMC 937 Intro to Physical Examination Skills
VMC 961 Companion Animal Medicine and Surgery II

Deep pain, conscious proprio, hopping

**Sign-Offs:**
Small Animal

**Offered in Courses...**
VMC 937 Intro to Physical Examination Skills
VMC 961 Companion Animal Medicine and Surgery II

Menace, PLR, palpebral reflex

**Sign-Offs:**
Small Animal

**Offered in Courses...**
VMC 937 Intro to Physical Examination Skills
VMC 961 Companion Animal Medicine and Surgery II
Patellar, withdrawal, panniculus reflex

Sign-Offs:
Small Animal

Offered in Courses...
VMC 937 Intro to Physical Examination Skills
VMC 961 Companion Animal Medicine and Surgery II

Physical exam: Onco

ID palpable peripheral lymph nodes

Sign-Offs:
Small Animal

Offered in Courses...
VMC 937 Intro to Physical Examination Skills
Physical exam: Ophtho

Fluorescein staining

**Sign-Offs:**
Any species

*Offered in Courses...*
VMC 937 Intro to Physical Examination Skills

Ocular pressure measurement

**Sign-Offs:**
Small Animal

*Offered in Courses...*
VMC 937 Intro to Physical Examination Skills

PLR, menace, dazzle reflex

**Sign-Offs:**
Small Animal

*Offered in Courses...*
VMC 937 Intro to Physical Examination Skills

Schirmer tear test

**Sign-Offs:**
Any species

*Offered in Courses...*
VMC 937 Intro to Physical Examination Skills
Use direct/indirect ophthalmoscope

**Sign-Offs:**

Small Animal

**Offered in Courses...**

VMC 937 Intro to Physical Examination Skills
Physical exam: Ortho

Measure limb circumference

Sign-Offs:
Small Animal

Offered in Courses...
VMC 937 Intro to Physical Examination Skills
VMC 961 Companion Animal Medicine and Surgery II

Palpate and name major joints

Sign-Offs:
Small Animal

Offered in Courses...
VMC 937 Intro to Physical Examination Skills
VMC 961 Companion Animal Medicine and Surgery II

Recognize normal/abnormal joint angle

Sign-Offs:
Small Animal

Offered in Courses...
VMC 937 Intro to Physical Examination Skills
VMC 961 Companion Animal Medicine and Surgery II
VMC 937
Intro to Physical Examination Skills

Use goniometer

Sign-Offs:
Small Animal

Offered in Courses...
VMC 937 Intro to Physical Examination Skills
VMC 961 Companion Animal Medicine and Surgery II

Restraint/Husbandry

Safely catch and restrain

Sign-Offs:
Dog

Offered in Courses...
VMC 937 Intro to Physical Examination Skills
VMP 910
Infection and Immunity I

Clinical Pathology

Demonstrate Gram Stain Technique

Sign-Offs:
N/A

Offered in Courses...
VMP 910 Infection and Immunity I
VMC 927
Intro to Companion Animal Behavior

Medicine: Case Management

1. Evaluate and suggest rx common behavior problem

**Sign-Offs:**
Any species

**Offered in Courses...**
VMC 927  Intro to Companion Animal Behavior
Clinics  Fourth Year clinics
VMC 927
Intro to Companion Animal Behavior

Restraint/Husbandry

2 Counsel owner behavioral/socialization needs LA*

Sign-Offs:
Large Animal

Offered in Courses...
VMC 927 Intro to Companion Animal Behavior

3 Counsel owner behavioral/socialization needs SA*

Sign-Offs:
Small Animal

Offered in Courses...
VMC 927 Intro to Companion Animal Behavior

4. Counsel owner pet/animal selection

Sign-Offs:
Any species

Offered in Courses...
VMC 927 Intro to Companion Animal Behavior

5. Observe, state if behavior normal/abnormal LA

Sign-Offs:
Large Animal

Offered in Courses...
VMC 927 Intro to Companion Animal Behavior
6. Observe, state if behavior normal/abnormal SA

Sign-Offs:
Small Animal

Offered in Courses...
VMC 927 Intro to Companion Animal Behavior
VMP 922
Intro to Clinical Problem Solving

Communications/ Ethics

Be team member, passing grade team skills

Sign-Offs:

N/A

Offered in Courses...

VMP 922  Intro to Clinical Problem Solving
VMC 932  Principles of Surgery
Clinics  Fourth Year clinics
Choose and calculate drug dosage

**Sign-Offs:**
Any species

**Offered in Courses...**
- VMB 933/943 Pharmacology and Therapeutics
- VMB 954 Veterinary Toxicology & Poisonous Plants
- Clinics Fourth Year clinics

Write outpatient prescription

**Sign-Offs:**
Any species

**Offered in Courses...**
- VMB 933/943 Pharmacology and Therapeutics
- VMB 954 Veterinary Toxicology & Poisonous Plants
- Clinics Fourth Year clinics
Clinical Nutrition

Articulate rationale: diet(s) vs. disease state(s)

Sign-Offs:
Any species

Offered in Courses...
VMB 965 Veterinary Clinical Nutrition

Demonstrate nutritional assessment

Sign-Offs:
Any species

Offered in Courses...
VMB 965 Veterinary Clinical Nutrition

Develop complete wellness lifestage feeding plan

Sign-Offs:
Any species

Offered in Courses...
VMB 965 Veterinary Clinical Nutrition
Anesthesia/Analgesia: General

Perform anesthesia small animal

**Sign-Offs:**
Small Animal

**Offered in Courses...**
VMC 932  Principles of Surgery

Anesthesia/Analgesia: Machines

Identify parts anesthesia machine

**Sign-Offs:**
N/A

**Offered in Courses...**
VMC 932  Principles of Surgery
Clinics  Fourth Year clinics

Put together circle system

**Sign-Offs:**
N/A

**Offered in Courses...**
VMC 932  Principles of Surgery
VMC 932
Principles of Surgery

Anesthesia/Analgesia: Techniques

Demonstrate pain scoring

*Sign-Offs:

Any species

*Offered in Courses...

VMC 932 Principles of Surgery
Clinics Fourth Year clinics

Intubate animal

*Sign-Offs:

Small Animal

*Offered in Courses...

VMC 932 Principles of Surgery
VMC 957 Intro to Clinical Practice
Clinics Fourth Year clinics

Perform local block

*Sign-Offs:

Any species

*Offered in Courses...

VMC 932 Principles of Surgery
Clinics Fourth Year clinics
Place BP monitor

**Sign-Offs:**

Any species

**Offered in Courses...**

- VMC 932  Principles of Surgery
- VMC 931/953  Lab Animal and Zoo/Special Species
- Clinics  Fourth Year clinics

Place IV catheter small animal

**Sign-Offs:**

Small Animal

**Offered in Courses...**

- VMC 932  Principles of Surgery
- VMC 957  Intro to Clinical Practice
- Clinics  Fourth Year clinics

Place pulse ox unit

**Sign-Offs:**

Any species

**Offered in Courses...**

- VMC 932  Principles of Surgery
- VMC 957  Intro to Clinical Practice
- Clinics  Fourth Year clinics
VMC 932
Principles of Surgery

Clinical Pathology

Perform ELISA Test

Sign-Offs:

Any species

Offered in Courses...

VMC 932  Principles of Surgery
Clinics  Fourth Year clinics
**VMC 932**  
*Principles of Surgery*

### Medicine: Techniques

**Administer controlled drugs, do record keeping**  
**Sign-Offs:**  
Any species  

**Offered in Courses...**  
- VMC 932  
  - Principles of Surgery  
- VMC 957  
  - Intro to Clinical Practice  
- Clinics  
  - Fourth Year clinics

**Calculate and administer IV fluids**  
**Sign-Offs:**  
Any species  

**Offered in Courses...**  
- VMC 932  
  - Principles of Surgery  
- VMC 957  
  - Intro to Clinical Practice  
- Clinics  
  - Fourth Year clinics

**Demo IM medication administration**  
**Sign-Offs:**  
Any species  
Small Animal

**Offered in Courses...**  
- VMC 932  
  - Principles of Surgery  
- Clinics  
  - Fourth Year clinics
Obtain blood sample

*Sign-Offs:*
- Any species
- Dog

*Offered in Courses...*
- VMC 932 Principles of Surgery

Obtain cystocentesis

*Sign-Offs:*
- Small Animal

*Offered in Courses...*
- VMC 932 Principles of Surgery

**Surgery: Bandages**

Wet to Dry bandage

*Sign-Offs:*
- Any species

*Offered in Courses...*
- VMC 932 Principles of Surgery
VMC 932
Principles of Surgery

Surgery: Knots

Demo friction knot

Sign-Offs:
N/A

Offered in Courses...
VMC 932 Principles of Surgery

Demo instrument tie

Sign-Offs:
N/A

Offered in Courses...
VMC 932 Principles of Surgery

Demo square knot

Sign-Offs:
N/A

Offered in Courses...
VMC 932 Principles of Surgery

Demo two hand tie

Sign-Offs:
N/A

Offered in Courses...
VMC 932 Principles of Surgery
Surgery: Procedures

A: Ovariohysterectomy

Sign-Offs:
Dog

Offered in Courses...
VMC 932 Principles of Surgery

B: Castration

Sign-Offs:
Dog

Offered in Courses...
VMC 932 Principles of Surgery
Surgery: Techniques

Demo drain placement

Sign-Offs:
Any species

Offered in Courses...
VMC 932 Principles of Surgery

Demo pack prep

Sign-Offs:
N/A

Offered in Courses...
VMC 932 Principles of Surgery

Demo patient prep

Sign-Offs:
N/A

Offered in Courses...
VMC 932 Principles of Surgery

Demo pencil grip

Sign-Offs:
N/A

Offered in Courses...
VMC 932 Principles of Surgery
Demo simple continuous

*Sign-Offs:*

N/A

*Offered in Courses...*

VMC 932 Principles of Surgery

Demo simple interrupted

*Sign-Offs:*

N/A

*Offered in Courses...*

VMC 932 Principles of Surgery

Demo sterile technique

*Sign-Offs:*

N/A

*Offered in Courses...*

VMC 932 Principles of Surgery

Demo suture cutting

*Sign-Offs:*

N/A

*Offered in Courses...*

VMC 932 Principles of Surgery
Demo three point grip

*Sign-Offs:*

N/A

*Offered in Courses...*

VMC 932 Principles of Surgery

Demo wound closure

*Sign-Offs:*

Any species

*Offered in Courses...*

VMC 932 Principles of Surgery
Anesthesia/Analgesia: General

SS Design surgical anesthesia/analgesia regime

**Sign-Offs:**
- Amph/Reptile

**Offered in Courses...**
- VMC 931/953 Lab Animal and Zoo/Special Species

SS Perform anesthesia

**Sign-Offs:**
- Amph/Reptile
- Small Mammal

**Offered in Courses...**
- VMC 931/953 Lab Animal and Zoo/Special Species

Anesthesia/Analgesia: Techniques

SS Intubate or assist

**Sign-Offs:**
- Amph/Reptile
- Bird

**Offered in Courses...**
- VMC 931/953 Lab Animal and Zoo/Special Species
VMC 931/953
Lab Animal and Zoo/Special Species

**Medicine: Case Management**

**SS1 Define chief complaint and problem list**

*Sign-Offs:*

Spec species

*Offered in Courses...*

VMC 931/953 Lab Animal and Zoo/Special Species

**SS2 Create differential diagnosis list**

*Sign-Offs:*

Spec species

*Offered in Courses...*

VMC 931/953 Lab Animal and Zoo/Special Species

**SS3 Choose appropriate diagnostic tests**

*Sign-Offs:*

Spec species

*Offered in Courses...*

VMC 931/953 Lab Animal and Zoo/Special Species
SS Choose and calculate drug dosage

*Sign-Offs:*
- Amph/Reptile
- Bird
- Small Mammal

*Offered in Courses...*
VMC 931/953  Lab Animal and Zoo/Special Species

SS Cloacal Culture

*Sign-Offs:*
- Bird

*Offered in Courses...*
VMC 931/953  Lab Animal and Zoo/Special Species

SS Demo IM medication administration

*Sign-Offs:*
- Amph/Reptile
- Bird
- Small Mammal

*Offered in Courses...*
VMC 931/953  Lab Animal and Zoo/Special Species
SS Demo IV injection

*Sign-Offs:*

Small Mammal

*Offered in Courses...*

VMC 931/953  Lab Animal and Zoo/Special Species

SS Demo oral admin medicine (tablet, dose syringe)

*Sign-Offs:*

Amph/Reptile
Bird
Small Mammal

*Offered in Courses...*

VMC 931/953  Lab Animal and Zoo/Special Species

SS Demo SC medication administration

*Sign-Offs:*

Amph/Reptile
Bird
Small Mammal

*Offered in Courses...*

VMC 931/953  Lab Animal and Zoo/Special Species
VMC 931/953
Lab Animal and Zoo/Special Species

SS Obtain blood sample

Sign-Offs:
- Amph/Reptile
- Bird
- Small Mammal

Offered in Courses...
- VMC 931/953 Lab Animal and Zoo/Special Species

SS1 Place IV or IO catheter

Sign-Offs:
- Bird

Offered in Courses...
- VMC 931/953 Lab Animal and Zoo/Special Species

SS2 Calculate appropriate fluid amount

Sign-Offs:
- Amph/Reptile
- Bird

Offered in Courses...
- VMC 931/953 Lab Animal and Zoo/Special Species

Necropsy

SS Perform necropsy

Sign-Offs:
- Spec species

Offered in Courses...
- VMC 931/953 Lab Animal and Zoo/Special Species
VMC 931/953
Lab Animal and Zoo/Special Species

Physical Exam: A General Exam

SS General physical exam

Sign-Offs:
- Amph/Reptile
- Bird
- Small Mammal

Offered in Courses...
VMC 931/953 Lab Animal and Zoo/Special Species

SS TPR, perform and know normal

Sign-Offs:
- Small Mammal

Offered in Courses...
VMC 931/953 Lab Animal and Zoo/Special Species
VMC 931/953
Lab Animal and Zoo/Special Species

Restraint/Husbandry

Operate projectile drug delivery device

Sign-Offs:
N/A

Offered in Courses...
VMC 931/953    Lab Animal and Zoo/Special Species

SS Safely catch and restrain

Sign-Offs:
Amph/Reptile
Bird
Small Mammal

Offered in Courses...
VMC 931/953    Lab Animal and Zoo/Special Species
Parasitology

Collect fecal sample

*Sign-Offs:*
Any species

*Offered in Courses...*
VMP 930 Infection & Immunity III

Double centrifugation

*Sign-Offs:*
Cow

*Offered in Courses...*
VMP 930 Infection & Immunity III

Fecal centrifugation

*Sign-Offs:*
Small Animal

*Offered in Courses...*
VMP 930 Infection & Immunity III

Fecal direct smear

*Sign-Offs:*
Any species

*Offered in Courses...*
VMP 930 Infection & Immunity III
ID Microfilaria in blood drop

**Sign-Offs:**
Dog

**Offered in Courses...**
VMP 930  Infection & Immunity III

McMaster's technique

**Sign-Offs:**
Horse
Small Ruminant

**Offered in Courses...**
VMP 930  Infection & Immunity III

Microscope technique for parasitology

**Sign-Offs:**
Any species

**Offered in Courses...**
VMP 930  Infection & Immunity III
Public Health

Articulate roles of public health/regulatory vet

Sign-Offs:
N/A

Offered in Courses...
VMP 945/958  Epi, Public Health, Emerging Exotic Disease

Create prevention/disease control plan

Sign-Offs:
Population

Offered in Courses...
VMP 945/958  Epi, Public Health, Emerging Exotic Disease

Demonstrate proficiency in outbreak investigation

Sign-Offs:
N/A

Offered in Courses...
VMP 945/958  Epi, Public Health, Emerging Exotic Disease

Educate lay person 5 diseases transmitted by food*

Sign-Offs:
N/A

Offered in Courses...
VMP 945/958  Epi, Public Health, Emerging Exotic Disease
VMP 945/958
Epi, Public Health, Emerging Exotic Disease

Educate lay person 5 zoonotic diseases*

Sign-Offs:
N/A

Offered in Courses...
VMP 945/958 Epi, Public Health, Emerging Exotic Disease

Obtain EEDA/USDA IAT certificate via online module

Sign-Offs:
N/A

Offered in Courses...
VMP 945/958 Epi, Public Health, Emerging Exotic Disease
Blood sample: PCV, TP

*Sign-Offs:*  
Any species

*Offered in Courses:*  
VMP 942 Veterinary Clinical Pathology  
Clinics Fourth Year clinics

Blood smear differential, estimate platelet count

*Sign-Offs:*  
Any species

*Offered in Courses:*  
VMP 942 Veterinary Clinical Pathology

Blood smear: prepare and stain

*Sign-Offs:*  
Any species

*Offered in Courses:*  
VMP 942 Veterinary Clinical Pathology

Urine sample: reagent strip, SG, sediment exam

*Sign-Offs:*  
Any species

*Offered in Courses:*  
VMP 942 Veterinary Clinical Pathology
Physical exam: Onco

Do fine needle aspirate

**Sign-Offs:**

- Any species

**Offered in Courses...**

- VMC 951  Companion Animal Medicine and Surgery I
- Clinics  Fourth Year clinics
Anesthesia/Analgesia: Machines

Put together non-rebreathing system

*Sign-Offs:*
N/A

*Offered in Courses...*
VMC 957 Intro to Clinical Practice

---

Anesthesia/Analgesia: Techniques

Intubate Cat

*Sign-Offs:*
Cat

*Offered in Courses...*
VMC 957 Intro to Clinical Practice
VMC 957
Intro to Clinical Practice

Emergency/ICU

Abdominocentesis

**Sign-Offs:**
Small Animal

**Offered in Courses...**
VMC 957 Intro to Clinical Practice

Calculate and administer nasal oxygen

**Sign-Offs:**
Any species

**Offered in Courses...**
VMC 957 Intro to Clinical Practice

Demo technique emergency venous access

**Sign-Offs:**
Any species

**Offered in Courses...**
VMC 957 Intro to Clinical Practice

Thoracocentesis

**Sign-Offs:**
Small Animal

**Offered in Courses...**
VMC 957 Intro to Clinical Practice
VMC 957
Intro to Clinical Practice

Medicine: Techniques

Demo oral admin medicine Cat

Sign-Offs:
Cat

Offered in Courses...
VMC 957 Intro to Clinical Practice

Express anal sacs

Sign-Offs:
Dog

Offered in Courses...
VMC 957 Intro to Clinical Practice
Clinics Fourth Year clinics

Obtain blood sample Cat

Sign-Offs:
Cat

Offered in Courses...
VMC 957 Intro to Clinical Practice
VMC 957
Intro to Clinical Practice

Physical Exam: A General Exam

Do body condition score Cat

Sign-Offs:
Cat

Offered in Courses...
VMC 957 Intro to Clinical Practice

General physical exam Cat

Sign-Offs:
Cat

Offered in Courses...
VMC 957 Intro to Clinical Practice

TPR, perform and know normal Cat

Sign-Offs:
Cat

Offered in Courses...
VMC 957 Intro to Clinical Practice

Restraint/Husbandry

Safely catch and restrain Cat

Sign-Offs:
Cat

Offered in Courses...
VMC 957 Intro to Clinical Practice
Surgery: Procedures

Castration Cat

**Sign-Offs:**
Cat

**Offered in Courses...**
VMC 957 Intro to Clinical Practice

Ovariohysterectomy Cat

**Sign-Offs:**
Cat

**Offered in Courses...**
VMC 957 Intro to Clinical Practice
Surgery: Bandages

Distal limb splint

Sign-Offs:
Small Animal

Offered in Courses...
VMC 961 Companion Animal Medicine and Surgery II

Full cylinder cast

Sign-Offs:
Small Animal

Offered in Courses...
VMC 961 Companion Animal Medicine and Surgery II

Robert Jones

Sign-Offs:
Small Animal

Offered in Courses...
VMC 961 Companion Animal Medicine and Surgery II

Support bandage

Sign-Offs:
Small Animal

Offered in Courses...
VMC 961 Companion Animal Medicine and Surgery II
Dentistry

1 Dental exam, chart lesions

Sign-Offs:
Small Animal

Offered in Courses...
VMC 965 Advanced Principles of Surgery

2 Tooth extraction

Sign-Offs:
Small Animal

Offered in Courses...
VMC 965 Advanced Principles of Surgery

3 Dental cleaning

Sign-Offs:
Small Animal

Offered in Courses...
VMC 965 Advanced Principles of Surgery

Emergency/ICU

Tracheostomy

Sign-Offs:
Any species

Offered in Courses...
VMC 965 Advanced Principles of Surgery
Surgery: Bandages

Emergency limb bandage

Sign-Offs:
Horse

Offered in Courses...
VMC 965    Advanced Principles of Surgery

Surgery: Knots

Perform one hand surgical tie

Sign-Offs:
N/A

Offered in Courses...
VMC 965    Advanced Principles of Surgery

Perform two hand surgical tie

Sign-Offs:
N/A

Offered in Courses...
VMC 965    Advanced Principles of Surgery
Surgery: Techniques

Demo Connell suture pattern

Sign-Offs:
N/A

Offered in Courses...
VMC 965 Advanced Principles of Surgery

Demo Cushing suture pattern

Sign-Offs:
N/A

Offered in Courses...
VMC 965 Advanced Principles of Surgery

Demo Ford interlocking pattern

Sign-Offs:
N/A

Offered in Courses...
VMC 965 Advanced Principles of Surgery

Demo horiz mattress suture pattern

Sign-Offs:
N/A

Offered in Courses...
VMC 965 Advanced Principles of Surgery
Demo Lembert suture pattern

**Sign-Offs:**

N/A

*Offered in Courses...*

VMC 965 Advanced Principles of Surgery

Demo vert mattress suture pattern

**Sign-Offs:**

N/A

*Offered in Courses...*

VMC 965 Advanced Principles of Surgery
Physical exam: Repro

Conduct pregnancy exam

Sign-Offs:
- Cow
- Dog
- Horse

Offered in Courses...
VMC 933 Theriogenology

Describe malpresentation, correct, place chains

Sign-Offs:
- Large Animal

Offered in Courses...
VMC 933 Theriogenology

Examine external genitalia female

Sign-Offs:
- Cow
- Dog
- Horse

Offered in Courses...
VMC 933 Theriogenology
Examine external genitalia male

**Sign-Offs:**
- Cow
- Dog
- Horse

*Offered in Courses...*
- VMC 933 Theriogenology

Obtain and interpret vaginal smear

**Sign-Offs:**
- Dog

*Offered in Courses...*
- VMC 933 Theriogenology

Prepare and evaluate semen dog, cow or horse

**Sign-Offs:**
- Any species

*Offered in Courses...*
- VMC 933 Theriogenology
VMC 933
Theriogenology

Restraint/Husbandry

Counsel owner normal reproduction*

Sign-Offs:

- Large Animal
- Small Animal

Offered in Courses...

- VMC 933 Theriogenology
- Clinics Fourth Year clinics
VMC 962

Ethics, Animal Welfare & Social Responsibility

Anesthesia/Analgesia: Animal Welfare

Educate lay person welfare issue*

**Sign-Offs:**
- Any species

**Offered in Courses...**
- VMC 962 Ethics, Animal Welfare & Social Responsibility

Communications/ Ethics

Educate lay person ethics issue*

**Sign-Offs:**
- N/A

**Offered in Courses...**
- VMC 962 Ethics, Animal Welfare & Social Responsibility

Presentation ethical issue

**Sign-Offs:**
- N/A

**Offered in Courses...**
- VMC 962 Ethics, Animal Welfare & Social Responsibility

Presentation legal/conflict issue

**Sign-Offs:**
- N/A

**Offered in Courses...**
- VMC 962 Ethics, Animal Welfare & Social Responsibility
VMC 962
Ethics, Animal Welfare & Social Responsibility

Emergency/ICU

Demo CPR small animal

Sign-Offs:
Small Animal

Offered in Courses...
VMC 962 Ethics, Animal Welfare & Social Responsibility

Demo use of CPR drugs, goals small animal

Sign-Offs:
Small Animal

Offered in Courses...
VMC 962 Ethics, Animal Welfare & Social Responsibility

Public Health

Complete credentialed responder training

Sign-Offs:
N/A

Offered in Courses...
VMC 962 Ethics, Animal Welfare & Social Responsibility
Clinics
Fourth Year clinics

Anesthesia/Analgesia: Animal Welfare

Participate euthanasia

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

Anesthesia/Analgesia: General

Design chronic analgesia regime

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

Design surgical anesthesia/analgesia regime

Sign-Offs:
Large Animal
Small Animal

Offered in Courses...
Clinics Fourth Year clinics

Perform anesthesia large animal

Sign-Offs:
Large Animal

Offered in Courses...
Clinics Fourth Year clinics
Clinics
Fourth Year clinics

Anesthesia/Analgesia: Techniques

Calculate constant rate infusion drug

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

Perform epidural

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

Place ECG

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics
**Clinical Pathology**

**Blood sample: use glucometer**

*Sign-Offs:*
- Any species

*Offered in Courses...*
- Clinics
- Fourth Year clinics

**Blood sample: Azostick**

*Sign-Offs:*
- Small Animal

*Offered in Courses...*
- Clinics
- Fourth Year clinics

**Communications/ Ethics**

Participate grief counseling or detailed explain

*Sign-Offs:*
- N/A

*Offered in Courses...*
- Clinics
- Fourth Year clinics

**Emergency/ICU**

Demo steps for hypovolemic/septic shock rx

*Sign-Offs:*
- Any species

*Offered in Courses...*
- Clinics
- Fourth Year clinics
Clinics
Fourth Year clinics

Medicine: Case Management

A: Obtain complete history

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

B: Define chief complaint/problem list

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

C: Create differential diagnosis list

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

D: Choose appropriate diagnostic tests

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics
E: Create problem-oriented medical record

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics    Fourth Year clinics

F: Create treatment plan/daily treatment sheet

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics    Fourth Year clinics

G: Organized oral summary of case for peers

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics    Fourth Year clinics

H: Create laboratory flow sheet

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics    Fourth Year clinics
I: Follow patient through treatment

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

J: Discuss case progress with client

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

K: Provide 5 complete oral discharge instructions

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics

L: Write discharge instructions

Sign-Offs:
Any species

Offered in Courses...
Clinics Fourth Year clinics
Clinics
Fourth Year clinics

M: Perform followup phone calls

*Sign-Offs:*
- Any species

*Offered in Courses...*
- Clinics: Fourth Year clinics

**Medicine: Patient Type**

5 days non-emergent medical primary care clinic

*Sign-Offs:*
- N/A

*Offered in Courses...*
- Clinics: Fourth Year clinics

Help manage 5 medicine referral patients

*Sign-Offs:*
- Any species

*Offered in Courses...*
- Clinics: Fourth Year clinics
Clinics
Fourth Year clinics

Necropsy

Collect biopsy sample 3 tissue types

Sign-Offs:
N/A

Offered in Courses...
Clincs Fourth Year clinics

Collect sample microbiological testing

Sign-Offs:
N/A

Offered in Courses...
Clincs Fourth Year clinics

Collect sample toxicologic testing

Sign-Offs:
N/A

Offered in Courses...
Clincs Fourth Year clinics

Perform complete necropsy

Sign-Offs:
Mammal Species

Offered in Courses...
Clincs Fourth Year clinics
**Clinics**

**Fourth Year clinics**

---

**Physical exam: CV**

**Obtain blood pressure awake animal**

*Sign-Offs:*

Small Animal  

*Offered in Courses...*

Clinics  

Fourth Year clinics

---

**Take EKG, name parts**

*Sign-Offs:*

Small Animal  

*Offered in Courses...*

Clinics  

Fourth Year clinics
Clinics
Fourth Year clinics

Physical exam: Derm

1: General dermatologic exam

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics Fourth Year clinics

2: Recognize primary, secondary lesions

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics Fourth Year clinics

3: Otic exam, ID tympanic membrane

*Sign-Offs:*

Small Animal

*Offered in Courses...*

Clinics Fourth Year clinics

4: Skin cytology, tape/swab/aspiration

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics Fourth Year clinics
Clinics
Fourth Year clinics

5: Skin scraping, deep, superficial

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics Fourth Year clinics

6: Otic cytology

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics Fourth Year clinics

7: Collect samples for bacterial / fungal culture

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics Fourth Year clinics

8: Woods lamp exam

*Sign-Offs:*

Any species

*Offered in Courses...*

Clinics Fourth Year clinics
### Clinics

#### Fourth Year clinics

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<tr>
<td>Clinics</td>
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</table>

#### Public Health

**Evaluate clinic environmental issues***

| **Sign-Offs:** |
| N/A |
| **Offered in Courses...** |
| Clinics | Fourth Year clinics |

**Evaluate production unit environmental issues***

| **Sign-Offs:** |
| N/A |
| **Offered in Courses...** |
| Clinics | Fourth Year clinics |

#### Radiology

**Position, create, process, interpret radiograph**

| **Sign-Offs:** |
| Any species |
| **Offered in Courses...** |
| Clinics | Fourth Year clinics |
Clinics
Fourth Year clinics

Restraint/Husbandry

Counsel owner biological needs LA*

Sign-Offs:
Large Animal

Offered in Courses...
Clinics Fourth Year clinics
Extramural Extramural Studies

Counsel owner biological needs SA*

Sign-Offs:
Small Animal

Offered in Courses...
Clinics Fourth Year clinics

Counsel owner core vaccines LA*

Sign-Offs:
Large Animal

Offered in Courses...
Clinics Fourth Year clinics
Extramural Extramural Studies

Counsel owner core vaccines SA*

Sign-Offs:
Small Animal

Offered in Courses...
Clinics Fourth Year clinics
**Clinics**

**Fourth Year clinics**

**Counsel owner parasite control LA***

*Sign-Offs:*

- Large Animal

*Offered in Courses...*

- Clinics Fourth Year clinics
- Extramural Extramural Studies

**Counsel owner parasite control SA***

*Sign-Offs:*

- Small Animal

*Offered in Courses...*

- Clinics Fourth Year clinics

**Surgery: Procedures**

**Assist referral surgery**

*Sign-Offs:*

- Any species

*Offered in Courses...*

- Clinics Fourth Year clinics

**Surgery: Techniques**

**Remove sutures or staples**

*Sign-Offs:*

- Any species

*Offered in Courses...*

- Clinics Fourth Year clinics
Other
Required Experiences

Communications/ Ethics

Attend approved diversity program, 1/year

Sign-Offs:
N/A

Offered in Courses...
Other Required Experiences

Public Health

Attach completed CRV test

Sign-Offs:
N/A

Offered in Courses...
Other Required Experiences

Demo correct rabies vaccination technique

Sign-Offs:
N/A

Offered in Courses...
Other Required Experiences

Research

Advisor sign-off on research experience

Sign-Offs:
N/A

Offered in Courses...
Other Required Experiences
Other

Required Experiences

Surgery: Procedures

List surgery as primary surgeon 1:________________

Sign-Offs:
Any species

Offered in Courses...
Other Required Experiences

List surgery as primary surgeon 2:________________

Sign-Offs:
Any species

Offered in Courses...
Other Required Experiences

List surgery as primary surgeon 3:________________

Sign-Offs:
Any species

Offered in Courses...
Other Required Experiences

List surgery as primary surgeon 4:________________

Sign-Offs:
Any species

Offered in Courses...
Other Required Experiences
Other
Required Experiences

List surgery as primary surgeon 5:________________

Sign-Offs:
Any species

Offered in Courses...
Other Required Experiences

List surgery as primary surgeon 6:________________

Sign-Offs:
Any species

Offered in Courses...
Other Required Experiences