

Veterinary Science CDE

Purpose

The purpose of the Veterinary Science CDE is to provide a competitive event for agricultural education students, provide opportunities for participants to develop technical knowledge, and demonstrate practical skills in the field of veterinary science.

Sponsor

Wilkes Community College currently sponsors this event.

State Event Superintendent

Dr. Jason Davis, State FFA Coordinator, Department of Agricultural and Extension Education, NCSU, Box 7654, Raleigh, NC 27695-7654. Phone: 919.515.4206 Fax: 919.513.3201 Email: jason_davis@ncsu.edu

Eligibility and General Guidelines

This event is open to all FFA chapters and FFA members in good standing. FFA Members may not participate in a Career Development Event that leads to a state level event after July 1, following the high school/early college graduation. Members winning a previous state event in this area or that have participated in a previous national event in this area are ineligible.

Each chapter may send one team to compete at the state event. **Teams shall consist of three or four members. Four scores will count towards the team total (A three-member team will earn a zero for the 4th score). No alternates are allowed in state events. Any alternate found participating in a state event will result in team disqualification.**

FFA members in good standing may also participate as individuals in this event. A chapter may have up to two members participating as individuals as long as the chapter does not have a team participating in the event. Their scores will only count toward individual recognition and will not be tallied as a team score.

The use or possession of cellular phones, Personal Digital Assistants (PDAs) or any other mobile

electronic communication device is prohibited during any state-level career development event. Any violation of this rule by any team member will result in total team disqualification.

FFA members participating in career development events that require the use of calculators may only use non programmable/graphing calculators that do not have the ability to communicate with other calculators. Calculators will be screened prior to the start of a CDE for acceptability. Students caught using data stored on a calculator or communicating with other calculators will result in a total team disqualification for the event.

Any member found cheating in any state-level career development event will result in total team disqualification for that event.

The North Carolina FFA Association, in keeping with the FFA mission and purposes, does not permit the use of tobacco products at any FFA facility or at any FFA activity.

Dress Code

Participants are required to follow the North Carolina FFA Career Development Event Dress Code. A ten percent reduction in the total team score will be taken off if a participant violates the dress code. Participants in this event are required to wear long pants and an appropriate shirt with a collar or an appropriate FFA or school t-shirt. **Students may also wear scrubs.**

Procedures for Administering the Event Part I: Multiple Choice Exam - 100 Points The written exam will be twenty-five (25) multiplechoice items designed to determine each team member's understanding of the Veterinary Science industry. All questions will come from the Veterinary Assisting: Fundamentals and Applications textbook written by Beth Vanhorn and Robert Clark published by CENGAGE Learning. Students will have 30 minutes to complete the written exam. Exam will come from the following topics and chapters by year:



2016 – Veterinary Medical Terminology and Abbreviations (1), Cat Breed Identification and Production Management (9), Rabbit Identification and Production Management (12), The Structure of Living Things (26), The Renal System (32), Animal Nutrition (37), and Veterinary Assisting Procedures (47).
2017 - Veterinary Medical Terminology and Abbreviations (1), Pocket Pet Health and Production Management (11), Ornamental Fish Identification and Production Management (14), Equine Breed Identification and Production Management (19), The Digestive System (28), The Reproductive System (33), Animal Nutrition (37), and Veterinary Assisting Procedures (47).

2018 - Veterinary Medical Terminology and Abbreviations (1), Reptile and Amphibian Breed Identification and Production Management, Beef and Dairy Cattle Breed Identification and Production Management (18), Zoo and Exotic Animal Production Management (16), The Respiratory System (30), The Endocrine System (31), Animal Nutrition (37), and Veterinary Assisting Procedures (47).

2019 – Veterinary Medical Terminology and Abbreviations (1), Poultry Breed Identification and Production Management (24), Sheep Breed Identification and Production Management (22), Goat Breed Identification and Production Management (23), The Immune System (34), Microbiology and Parasitology as Disease Processes (38), Animal Nutrition (37), and Veterinary Assisting Procedures (47).

2020- Veterinary Medical Terminology and Abbreviations (1), Dog Breed Identification and Production Management (8), Avian Breed Identification and Production Management (10), Circulatory System (29), Musculoskeletal System (27), Animal Nutrition (37), and Veterinary Assisting Procedures (47)

Part II: Math Applications Exam – 100 Points Each participant will complete (**100 points**): Students will complete clinical math problems similar to those include in the National FFA CDE. Students will have **30 minutes to complete this exam.**

Part II: Practicums - 80 Points

- A. **Clinical procedures (50 points):** Students will complete <u>one</u> of the following: (Page numbers refer to the National FFA Veterinary Science CDE Guide 2017-2021) Administering Ophthalmic Medication page 22, Filling a Syringe for Injection Page 26, Surgical Site Preparation Page 30, Prescription Filling page 31
- B. Handling and restraint procedures (30 points): Students will complete one of the following: (Page numbers refer to the National FFA Veterinary Science CDE Guide 2017-2021) Applying a Cat Muzzle page 35, Restraint of Cat Jugular Venipuncture page 37, Applying a Gauze Dog Muzzle page 39, Restrain of a Dog for Cephalic Venipuncture page 43

Part III: Identification - 100 Points

Each participant will identify the following (See additional pages):

- A. Equipment from amended list from National 10 pieces
- B. Parasites from amended list from Nationals 10 parasites
- C. Breeds from amended list from National 5 breeds
 - 2016 Large animal breeds
 - 2017 Small animal breeds (including cats, rabbits, poultry, birds, small mammals and reptiles)
 - 2018 Dog breeds

Scoring

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Maximum Score	380
Multiple Choice Exam	100
Math Applications Exam	100
Clinical Procedures	50
Handling and Restraint Procedures	30
Identification	100

Procedure for Determining the State Event Winner When Scores are Tied

In the event a tie score exists, apply the following methods in sequential order until the tie is broken:



- 1. Compare the total team scores for the multiple choice exam and the higher scoring team is the winner.
- 2. Compare the total team scores for the identification component and the higher scoring team is the winner.
- 3. Compare the total team scores for the math exam and the higher scoring team is the winner.
- 4. Compare the total team scores for the clinical practicum and the higher scoring team is the winner.

5. If teams continue to be tied a new event will be held to determine the winning team.

Procedure for Determining the High Scoring Individual When Scores are Tied

In the event that a tie score exists, apply the following methods in sequential order until the tie is broken.

1. Compare the individual scores for the identification

component and the higher contestant is the winner.

- 2. Compare the individual scores for the math exam and the higher scoring contestant is the winner.
- 3. Compare the individual scores for the clinical practicum and the higher scoring contestant is

the

winner.

4. If individual continue to be tied present cowinners.

State Awards

The awards for the state event will be presented annually at the state FFA convention to include a team 1^{st} , 2^{nd} and 3^{rd} place plaque and a travel monetary award. The high scoring individual will receive a plaque.

National Career Development Event Participation

State winning teams advancing to national career development event participation will be automatically registered for the national event. It is the responsibility of the Chapter FFA Advisor to complete all necessary national certification forms and return them to the State FFA Coordinator by the assigned due date.

State winning CDE teams that choose not to participate at the national level should contact the state office by Sept. 1 prior to national convention. Teams that fail to inform the state office prior to Sept. 1 will be ineligible to participate in that same CDE for the next year (chapters may appeal to the State FFA Board of Directors). Teams that do not compete at the National Convention will be required to pay back the travel award.

Primary References

Veterinary Assisting: Fundamentals and Applications. Vanhorn, Clark. ISBN: 978-1-4354-5387-6

National FFA Career Development Events: Veterinary Science CDE guide



North Carolina FFA Veterinary Science Career Development Event Equipment List

Autoclave	Forceps – Brown-Adson thumb
Autoclave tape indicator	Forceps – Halstead mosquito hemostatic
Backhaus towel clamps	Forceps – Kelly
Balling gun	Hoof equipment (knife or rasp)
Bandaging material – roll gauze	IV administration set
Bandaging material – vet wrap	Laryngoscopes
Bands (castration or docking)	Muzzle – nylon
Betadine	Obstetrical chain and handle
Bulb syringe	Needle holder (Mayo-Hegar or Olsen Hegar)
Catch pole (dog snare)	Ophthalmoscope
Catheter – butterfly	Otoscope
Catheter – IV	Paste gun
Catheter – tomcat urinary	Pig tooth nippers
Centrifuge	Pill counting tray
Clipper blades	Rumen magnet
Cold sterile tray	
Dehorner	
Dental equipment (float, retractor or scaler)	Scalpel blade
Drench gun-small ruminant	Scalpel handle
Ear notcher	Scissors – (bandage, lister bandage, littauer suture
Elastrator	removal, mayo dissecting, metzenbaum dissecting)
Elizabethian collar	
Emasculators	Silver nitrate sticks
Endotracheal tubes	Small animal oxygen cage
Fecal loop	Snook ovariohysterectomy hook
Fecalyzers	Staple remover
Feeding tube for small animals	Stethoscope
Fetal extractor-calf	Surgical drapes
Forceps – Alligator	Syringe
Forceps – Allis tissue	Tattooing instruments – small & large
Forceps – Babcock tissue	Tourniquet



North Carolina FFA Veterinary Science Career Development Event Parasites/Microscopic ID

- _____ Blowfly (Family Calliphoridae)
- _____ Cat Warble (Genus Cuterebra)
- ____ Cocci (bacteria)
- _____ Coccidia (Genus Isospora or Eimeria)
- _____ Demodectic Mite (Genus Demodex)
- _____ Ear Mite (Family Ascaridae; Genus Otodectes)
- _____ Eosinophils
- Fleas (Genus Ctenocephalides)
- _____ Flea Larva (Genus Ctenocephalides)
- _____ Flea Tapeworm Egg (Genus Dipylidium)
- _____ Flea Tapeworm Segment (Genus Dipylidium)
- _____ Giardia (Genus Giardia)
- _____ Heartworm Adult (Genus Dirofilaria)
- _____ Heartworm Microfilaria (Genus Dirofilaria)
- _____ Hookworm Adult (Family Ancylostomatidae; Genus Ancylostoma, Uncinaria, Bunostomum or Globocephalus)
- _____ Hookworn Egg (Family Ancylostomatidae; Genus Ancylostoma, Uncinaria, Bunostomum or Globocephalus)
- _____ Horse Bots (Genus Gasterophilus)
- _____ Horse Strongyles (Family Strongylidae; Genus Strongylus)
- Lice Biting (Order Mallophaga; Genus Bovicola or Trichodectes)
- Lice Sucking (Order Anoplura; Genus Linognathus or Hematopinus)
- Liver Fluke (Class Trematoda; Genus Fasciola, Fascioloides or Dicrocoelium)
- _____ Mosquito Adult (Family Culicidae; Genus Anopheles, Culex or Aedes)
- _____ Mosquito Larva (Family Culicidae; Genus Anopheles, Culex or Aedes)
- _____ Red Blood Cell
- _____ Roundworm Adult (Family Ascarididae or Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)
- Roundworm Egg (Family Ascarididae or
- Toxocaridae; Genus Toxocara, Toxascaris, Ascaris, Parascaris or Neoascaris)
- _____ Sarcoptic Mite (Family Ascaridae; Genus Sarcoptes or Notoedres)
- _____ Taenia Tapeworm (Family Taeniidae; Genus Taenia
 - _____ Taenia Tapeworm Egg (Family Taeniidae; Genus Taenia)

- _____ Taenia Tapeworm Segment (Family Taeniidae;
 - Genus Taenia)
- _____ Tick- American Dog (Family Dermacentor; Genus Variabilis)
- _____ Tick- Black Legged Deer (Family Ixodes; Genus Scapularis)
- _____ Whipworm (Genus Trichuris)
- _____ Whipworm Egg (Genus Trichuris)

____ Yeast



North Carolina FFA Veterinary Science Career Development Event

Identification Small Animal Breeds

Place the number of the species beside the correct name (four points each).

CATS	BIRDS	REPTILES
Abyssinian American Shorthair Burmese Maine Coon Manx	Cockatiel Cockatoos Love Birds Parakeet African Gray Parrot	Chameleon Gecko Iguana Lizard Bearded Dragon
Persian Ragdoll Russian Blue Siamese Sphynx	Canary Macaw Sun Conure Zebra Finch	POULTRYChicken-CornishChicken- Leghorn
RABBITS	SMALL MAMMALS	Chicken – Plymouth Rock Chicken – Rhode Island
<pre>AngoraCalifornianDutchEnglish SpotNetherland DwarfMini-Rex</pre>	Chinchilla Ferret Gerbils Guinea Pig Hamster Hedgehog Sugar Glider	Red Duck Geese Quail Turkey



North Carolina FFA Veterinary Science Career Development Event Identification Large Animal Breeds

Place the number of the species beside the correct name (four points each)

DAIRY BREEDS

Ayshire	HORSE BREEDS	
Brown Swiss		
Guernsey	Appaloosa	SHEEP BREEDS
Holstein	Arabian	Columbia
Jersey	Belgian	Dorper
	Clydesdale	Dorset
BEEF CATTLE BREEDS	Morgan	Hampshire
Angus	Paint	Merino
Brahman	Percheron	Rambouillet
Charolais	Quarter Horse	Southdown
Hereford	Saddlebred	Suffolk
Shorthorn	Tennessee Walking Horse	
Simmental	Thoroughbred	
SWINE BREEDS	GOAT BREEDS	
American Landrace	Alpine	
Berkshire	Nubian	
Chester White	Angora	
Duroc	Boer	
Hampshire	LaMancha	
Yorkshire	Oberhasli	
	Pygmy	
	Saanen	
	Toggenburg	



North Carolina FFA Veterinary Science Career Development Event Identification Dog Breeds

Place the number of the species beside the correct name (four points each)

- SPORTING GROUP
- ____Brittany
- ____Cocker Spaniel
- ____English Setter
- German Shorthaired
- Pointer
- ____Golden Retriever
- ____Irish Setter
- ____Labrador Retriever
- _____Weimaraner

NON-SPORTING GROUP

- ____Bichon Frise
- ____Boston Terrier
- ____Bulldog
- ____Chinese Shar-Pei
- Chow Chow
- Dalmatian
- ____Poodle

TERRIER GROUP

Bull Terrier Cairn Terrier Parson Russell Terrier Scottish Terrier West Highland White Terrier Australian Cattle Dog Australian Shepherd Border Collie Collie German Shepherd Dog Old English Sheepdog Pembroke Welsh Corgi Shetland Sheepdog

WORKING GROUP

HERDING GROUP

Bernese Mountain Dog Boxer Doberman Pinscher Great Dane Great Pyrenees Mastiff Newfoundland Portuguese Water Dog Rottweiler Saint Bernard Siberian Husky Standard Schnauzer

TOY GROUP

- ___Cavalier King Charles Spaniel Chihuahua Miniature Pinscher ____Papillon ____Pekingese Pomeranian __Poodle ____Pug Shih Tzu Yorkshire Terrier HOUNG GROUP ____Afghan Hound Basenji Basset Hound ____Beagle ____Black and Tan Coonhound Bloodhound Dachshund __Greyhound
- _____Rhodesian Ridgeback



Administering Ophthalmic Medication

Participant must talk through practicum steps with judge

CRITERIA	Points	Points
	Possible	Earned
The student wipes any discharge from the patient's eye using a gauze sponge or cotton ball.	8	
The student opens the end of the ophthalmic medicine.	6	
The student uses the index finger and thumb to pull the upper and lower lids apart to open the eye.	12	
The student's thumb pulls the lower lid down and the index finger pulls the upper lid upward.		
The student's other finger may rest on the head of the animal.		
While resting the hand holding the medication on the head of the patient, the student applies the drops or ointment gently into the eye without touching the eye, counting each drop or applying the proper amount of ointment without contamination.	12	
The student releases the eyelids.	6	
The student allows the animal to blink to move the medication throughout the eye.	6	
TOTAL POINTS	50	



Filling a Syringe for Injection

Participant must talk through practicum steps with judge.

CRITERIA	POINTS POSSIBLE	POINTS EARNED
The student determines the amount to be place in the syringe		
	6	
The student selects the proper-sized syringe	8	
The student inserts the syringe into the top of the bottle	6	
The student places the bottle upside down in one hand and holds securely.	6	
The students withdraws the proper volume	6	
The student removes the syringe from the bottle	6	
The student gently taps or snaps the edge of the syringe to remove any air bubbles, or slightly expel the air by pushing the end of the plunger.	6	
The student places syringe in the sharps container.	6	
TOTAL POINTS	50	



Surgical Site Preparation

Participants must talk through practicum steps with judges.

CRITERIA	POINTS	POINTS
	POSSIBLE	EARNED
The student applied antiseptic scrub to the clipped area		
	8	
The student prepped the clipped area with a clean surgical sponge		
beginning at the incision site moving in a circular motion and	8	
worked toward the edges.		
The student did not bring the sponge back to the incision site once it		
was moved away from the incision site.	8	
The student discarded the sponge once it reached the edge of the		
clipped area.	8	
The student wiped the clipped area with a rinse solution using a		
clean surgical sponge following the same pattern as when scrubbing	8	
with the antiseptic.		
The student repeated the scrub and rinse a minimum of three times		
or until the final rinse sponge was clean.	10	
TOTAL POINTS	50	



Prescription Filling

Participants must talk through practicum steps with judges.

CRITERIA	POINTS	POINTS
	POSSIBLE	EARNED
The student reads and verbally interprets prescription.		
	10	
The student selects the correct drug and concentration		
	20	
The student places the pill counting tray on the pharmacy counter with		
the channel to the left and the open plate in front of him/her.	1	
The student pours the medication tablets or capsules onto the tray		
plate.	1	
The student opens the channel cover.		
•	1	
The student uses a spatula or tongue depressor to push groups of		
tablets or capsules into the channel.	1	
When the student has counted the desired amount of medication,		
he/she closes the channel cover. The student tilts the tray to return the	4	
unused medicine into the stock bottle		
The student lifts the tray to place the channel spout into the medicine		
vial and transfer medication.	4	
The student places the lid on the vial and sets it on the counter.		
	1	
The student appropriately fills out label with prescription information.		
	7	
TOTAL POINTS	50	



Applying a Cat Muzzle

Participants must talk through practicum steps with judge.

CRITERIA	POINTS	POINTS
	POSSIBLE	EARNED
The student opens the cage door and calls the cat by name		
	2	
The student scruffs the cat with one hand and lifts it up.		
	2	
The student cradles the cat's abdomen with their other hand and		
removes the cat from the cage.	2	
With the cat still scruffed, the student places the cat under one arm		
close to their body and closes the cage door with their free hand.	2	
The student places cat on table.		
-	2	
The student selects a muzzle of appropriate size for the cat.		
	5	
The student places the cat in setting or sternal position on exam table.		
	2	
The student positions the muzzle properly in his/her hands		
	3	
The student approaches the cat from behind with the muzzle in both		
hands while another person restrains cat.	3	
The student brings the muzzle up to the cat's face in one swift motion.		
	4	
The student secures the muzzle.		
	3	
TOTAL POINTS	30	



Restraint of the Cat for Jugular Venipuncture

Participants must talk through practicums steps with judges.

CRITERIA	POINTS	POINTS
	POSSIBLE	EARNED
The student places the cat in sternal recumbency with its chest close to		
the edge of the table.	6	
The student controls and lifts the head up by placing thumb and		
forefingers over top of head, fingers firm on zygomatic arches (below	7	
eyes).		
The student's other hand grasps the front legs and extends them down		
off the edge of the table.	7	
The student uses arm and elbow to restrain the cat's body close to the		
student's body.	6	
The student spoke to the patient in a calm and affectionate manner		
during the procedure	4	
TOTAL POINTS	30	



Applying a Gauze Dog Muzzle

Participant must talk through practicum steps with judge.

CRITERIA	POINTS POSSIBLE	POINTS EARNED
The student selects proper type of material and length.	4	
The student places the dog in sitting or sternal position on exam table or floor.	2	
The student makes a loop in the gauze and approaches the dog from behind.	6	
The student places the loop on the dog's face with the tie on top.	6	
The student quickly tightens the loop, and then crosses the ends under the dog's face.	6	
The student brings the ends back behind the dog's head under the ears and ties in a quick-release bow.	6	
TOTAL POINTS	30	



Restraint of the Dog for Cephalic Venipuncture

Participants must talk through practicum steps with judge.

CRITERIA	POINTS	POINTS
	POSSIBLE	EARNED
The student places a noose leash on the dog.		
	2	
The student restrains the dog in sternal recumbency.		
	5	
The student stands on the dog's right side; wrapping his/her right		
arm around the dog's neck.	5	
The student holds the dog's left forelimb with elbow in the palm of		
his/her hand; extends the limb forward toward the person	6	
performing the procedure.		
With the elbow of the dog in his/her palm, the student rotates		
his/her thumb up so it is on top of the limb at the bend of the	6	
elbow.		
The student occludes the vessel with the thumb, rotates the thumb		
laterally.	6	
TOTAL POINTS	30	

