

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

This event is sponsored by the North Carolina FFA Foundation.

State Event Superintendent

Dr. Jason Davis, State FFA Coordinator, Department of Agricultural and Human Sciences, NCSU, Box 7654, Raleigh, NC 27695-7654. Phone: 919.513.0216 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 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, e-cigarettes, vapes, or Juuls 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. 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.**

The North Carolina FFA Association strives to promote a positive image at all Official FFA Events. The dress code policy was established to address the issue of appropriate attire at all Official FFA Events. Members should adhere to this policy for all events. A ten percent reduction will be applied to all individual scores from a chapter if a participant from that chapter violates the dress code during that career event.

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 questions will come from the following topics and chapters by year:

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)

2021 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).

2022 - 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).

Part II: Math Applications Exam – 100 Points Students will complete clinical math problems similar to those included 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
 - 2018 Dog breeds
 - 2019 Large animal breeds
 - 2020 Small animal breeds (including cats, rabbits, poultry, birds, small mammals and reptiles)

Scoring

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



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

Blowfly (Family Calliphoridae)	Taenia Tapeworm Segment (Family Taeniidae;
Cat Warble (Genus Cuterebra)	Genus Taenia)
Cocci (bacteria)	Tick- American Dog (Family Dermacentor; Genus
Coccidia (Genus Isospora or Eimeria)	Variabilis)
Demodectic Mite (Genus Demodex)	Tick- Black Legged Deer (Family Ixodes; Genus
Ear Mite (Family Ascaridae; Genus Otodectes)	Scapularis)
 Eosinophils	Whipworm (Genus Trichuris)
 Fleas (Genus Ctenocephalides)	Whipworm Egg (Genus Trichuris)
 Flea Larva (Genus Ctenocephalides)	Yeast
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)	
Hookworm 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)	



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	Sugar Glider
Abyssinian	Cockatiel	REPTILES
American Shorthair	Cockatoos	Chameleon
Burmese	Love Birds	Gecko
Maine Coon	Parakeet	Iguana
Manx	African Gray Parrot	Lizard
Persian	Canary	Bearded Dragon
Ragdoll	Macaw	
Russian Blue	Sun Conure	POULTRY
Siamese	Zebra Finch	Chicken-Cornish
Sphynx		Chicken-Leghorn
,	SMALL MAMMALS	Chicken-Plymouth Rock
RABBITS	Chinchilla	Chicken-Rhode Island Red
Angora	Ferret	Duck
Californian	Gerbil	Goose
Dutch		Quail
English Spot	Guinea Pig	Turkey
Netherland Dwarf	Hamster	
Mini-Rex	Hedgehog	



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	HORSE BREEDS	SHEEP BREEDS
AyshireBrown SwissGuernseyHolsteinJersey BEEF CATTLE BREEDSAngusBrahmanCharolaisHerefordShorthorn	AppaloosaArabianBelgianClydesdaleMorganPaintPercheronQuarter HorseSaddlebredTennessee Walking HorseThoroughbred	Columbia Dorper Dorset Hampshire Merino Rambouillet Southdown Suffolk
Simmental SWINE BREEDS American LandraceBerkshireChester WhiteDurocHampshireYorkshire	GOAT BREEDS AlpineNubianAngoraBoerLaManchaOberhasliPygmySaanenToggenburg	



Terrier

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	HERDING GROUP	TOY GROUP
Brittany		
Cocker Spaniel	Australian Cattle Dog	Cavalier King Charles
English Setter	Australian Shepherd	Spaniel
German Shorthaired	Border Collie	Chihuahua
Pointer	Collie	Miniature Pinscher
Golden Retriever	German Shepherd Dog	Papillon
Irish Setter	Old English Sheepdog	Pekingese
 Labrador Retriever	Pembroke Welsh Corgi	Pomeranian
	Shetland Sheepdog	Poodle
	1 8	Pug
NON-SPORTING GROUP	WORKING GROUP	Shih Tzu
		Yorkshire Terrier
Bichon Frise	Bernese Mountain Dog	
Boston Terrier	Boxer	HOUND GROUP
Bulldog	Doberman Pinscher	
Chinese Shar-Pei	Great Dane	Afghan Hound
Chow Chow	Great Pyrenees	Basenji
Dalmatian	Mastiff	Basset Hound
Poodle	Newfoundland	Beagle
	Portuguese Water Dog	Black and Tan Coonhound
TERRIER GROUP	Rottweiler	Bloodhound
	Saint Bernard	Dachshund
Bull Terrier	Siberian Husky	Greyhound
Cairn Terrier	Standard Schnauzer	Rhodesian Ridgeback
Parson Russell Terrier		
Scottish Terrier		
West Highland White		



Clinical Procedures Practicum Administering Ophthalmic Medication

Participant must talk through practicum steps with judge.

CRITERIA	Points Possible	Points 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. 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.	12	
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	



Clinical Procedures Practicum Filling a Syringe for Injection

Participant must talk through practicum steps with judge.

CRITERIA	POINTS	POINTS
	POSSIBLE	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	
gr		
The student places the bottle upside down in one hand and holds securely.	6	
· ····································		
The students withdraws the proper volume	6	
The summer of the proper volume		
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	
bubbles, of singility expertite air by pushing the chu of the plunger.	0	
The student places syringe in the sharps container.	6	
The student places syringe in the sharps container.		
TOTAL POINTS	50	
TOTALTOINTS	30	



Clinical Procedures Practicum 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	
2 0		
TOTAL POINTS	50	



Clinical Procedures Practicum 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	



Handling and Restraining Practicum Applying a Cat Muzzle

Participants must talk through practicum steps with judge.

CRITERIA	POINTS POSSIBLE	POINTS 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	



Handling and Restraining Practicum

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	



Handling and Restraining Practicum Applying a Gauze Dog Muzzle

Participant must talk through practicum steps with judge.

CRITERIA	POINTS	POINTS
	POSSIBLE	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	



Handling and Restraining Practicum 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	