



VET SCIENCE CDE

(Revised June 2022)

PURPOSE

The purpose of the veterinary science career development event is to promote college and career readiness by providing opportunities to develop technical knowledge and demonstrate practical skills in the field of veterinary science.

ELIGIBILITY

The participant must be an active member of a chartered West Virginia FFA Chapter and enrolled in grades 9th-12th grade.

EVENT PROCEDURE

The event will be a team event consisting of four students. A team may compete with less than 4 members.

Under no circumstances will any participants be allowed to handle any of the items in the identification portion of the practicums. Any infraction of this rule will result in team elimination from the event.

All participants must wear either scrubs (top and bottoms; solid color) or polo with slacks. All participants must wear closed toe, closed heel and flat shoes (no clogs, sandals or flip-flops).

EVENT MATERIALS

MATERIALS STUDENTS MUST PROVIDE

- Pencils
- Clipboards

TIE BREAKER

1. Combined practicum score
2. Written Exam Score

INDIVIDUAL PRACTICUMS

3. Identification - 100 points total Participants will identify equipment, parasites and breeds/species for a total of 100 points (2 points per item). Fifty minutes will be given for this activity. Identification lists are located at the end of this handbook.

Equipment – 50 points Participants will identify pieces of equipment (actual equipment and photos). They will also need to have general knowledge about the use for each item.

Parasites/Microscopic – 30 points Participants will identify parasites (specimen and photos) and explain the life cycles of selected parasites. Participants will identify microscopic organisms.

Breeds – 20 points Participants will identify breeds of small and large animals (photos).

4. Fifty (50) question objective multiple-choice exam will be prepared on topics reflecting subject areas in the contest objectives. Contestants are allowed 50 minutes to complete this phase. Each correct answer is worth three (2) points. Test questions will be pulled from the past 5 years of National FFA Exams.

Clinical Procedure Practicum (200 points) Participants will be given four clinical procedure activities to complete (50 points each). Fifteen to thirty minutes will be allotted for this section depending on the activities selected each year. Participants are expected to talk through the clinical procedure steps to a judge as they are being scored. Judges may ask participants for clarification on steps performed. All clinical procedure scorecards can be found at the end of this handbook.

Handling and Restraining Practicum (120 points) Participants will be given four handling/restraint activities to complete (30 points each). Fifteen to thirty minutes will be allotted for this section depending on the activities selected each year. Participants are expected to talk through the handling and restraining steps to a judge as they are being scored. Judges may ask participants for clarification on steps performed. All handling and restraining scorecards can be found at the end of this handbook.

Math Applications Practicum – 100 points Five math practicum questions will be used. Participants will have 30 minutes to complete the entire math application practicum. Questions may include conversions, dose calculations, dilutions, cost calculations and invoices.

Example: Sophie, a golden retriever, and her owner have just moved from out-of-state and are reestablishing veterinarian relations at your clinic. Sophie's owner has provided you with her health records from their previous veterinarian. Sophie had been prescribed a diet plan by the previous veterinarian and had been coming into the clinic for weekly weight checks. Sophie's owner would like to continue the weekly checks with you. You weigh Sophie and record her weight as 19 kg. The owner would like you to tell her how much weight Sophie has lost. Sophie's last recorded weight was 43.2 lb. How many pounds did Sophie lose since the last weighing? ANSWER: Sophie has lost 1.4 lb. since the last recorded weighing.

TEAM PRACTICUMS

Team Activity - 200 points Teams will conduct research using local veterinarians and veterinary resources based on the annual topic posted on the CDE webpage in November. The team will be provided a specific scenario when they begin their team activity. They will have a total of 15 minutes to prepare their presentation. Teamwork will be assessed during the plan development time. Teams will evaluate the information provided and prepare the questions, diagnostics and recommendations as well as explain steps and procedures for the veterinary process in their plan. Teams need to determine what aspects of veterinary medicine and roles are most important to demonstrate based on the annual topic. After preparation, the team will be required to give an oral presentation for a maximum of 15 minutes explaining decisions made by the team. All team members are expected to participate in the presentation. The team will then be required to answer questions from judges regarding the decisions reached by their team. Resources provided for the team activity may include diagnostic information like blood work, synopsis of disease state, treatment recommendations and cost information

SCORING

Practicum	Activity	Individual	Team
General Knowledge Exam	Written Exam	100	400
Individual	Current Exam	100	400
Individual	ID	100	400
Individual	Math Exam	100	400
Individual	Handling and Restraining	120	480
Individual	Clinical Procedures	200	800
Team Activity			200
TOTAL			3080

Equipment and Materials Identification List

100. Ambubag
101. Anesthetic machines
102. Autoclave
103. Autoclave tape indicator
104. Backhaus towel clamps
105. Balling gun
106. Bandaging material — Elasticon
107. Bandaging material — roll gauze
108. Bandaging material — vet wrap
109. Bands (castration or docking)
110. Cat bag
111. Catch pole (dog snare)
112. Catheter — butterfly
113. Catheter — IV
114. Catheter — Tomcat urinary
115. Centrifuge
116. Chemical indicator strips
117. Cold sterile tray
118. Dehorner — Barnes
119. Dehorner — electric
120. Dental floats
121. Dental scaler
122. Drench gun — small ruminant
123. Ear notcher
124. Elastrator
125. Elizabethan collar
126. Emasculators
127. Endoscope
128. Endotracheal tubes
129. Fecal loop
130. Fecalizers
131. Feeding tube for small animals
132. Fetal extractor — calf
133. Forceps — Alligator
134. Forceps — Allis tissue
135. Forceps — Babcock tissue
136. Forceps — Brown-Adson thumb
137. Forceps — Crile
138. Forceps — Kelly
139. Forceps — Halstead mosquito hemostatic
140. Forceps — Rat tooth thumb
141. Gravity feeder/J tube
142. Head gate
143. Hog snare
144. Hoof knife
145. Hoof rasp
146. IV administration set
147. Laparoscope
148. Laryngoscopes
149. Muzzle — basket
150. Muzzle — nylon
151. Needle holder — Mayo-Hegar
152. Needle holder — Olsen-Hegar
153. Obstetrical chain and handle
154. Ophthalmoscope
155. Otoscope
156. Pig tooth nippers
157. Radiology personal protective equipment
158. Rectal prolapse ring — swine
159. Rumen magnet
160. Scalpel blade
161. Scalpel handle
162. Scissors — Suture wire cutting
163. Scissors — Bandage
164. Scissors — Lister bandage
165. Scissors — Littauer suture removal
166. Scissors — Mayo dissecting
167. Scissors — Metzenbaum dissecting
168. Silver nitrate sticks
169. Small animal oxygen cage
170. Snook ovariohysterectomy hook
171. Speculum — large animal oral
172. Speculum — small animal oral
173. Speculum — vaginal
174. Squeeze chute
175. Staple remover
176. Stethoscope
177. Surgical drapes
178. Suture needle — cutting
179. Suture needle — taper
180. Syringe — automatic, multi-dose
181. Tattooing instruments — small & large
182. Tonometer
183. Tourniquet
184. Trocar and cannula
185. Twitch chain
186. Twitch handle

Parasite/Microscopic Identification List

200. Blowfly (Family *Calliphoridae*)
201. Calcium oxalate crystals
202. Cat Warble (Genus *Cuterebra*)
203. Cocci (bacteria)
204. Coccidia (Genus *Isospora* or *Eimeria*)
205. Demodectic Mite (Genus *Demodex*)
206. Ear Mite (Family *Psoroptidae*; Genus *Otodectes*)
207. Eosinophils
208. Epithelial cells (urine)
209. Flea Larva (Genus *Ctenocephalides*)
210. Flea Tapeworm Egg* (Genus *Dipylidium*)
211. Flea Tapeworm Segment* (Genus *Dipylidium*)
212. Flea Tapeworm* (Genus *Dipylidium*)
213. Fleas* (Genus *Ctenocephalides*)
214. Giardia* (Genus *Giardia*)
215. Heartworm Adult* (Genus *Dirofilaria*)
216. Heartworm Microfilaria* (Genus *Dirofilaria*)
217. Hookworm Adult* (Family *Ancylostomatidae*; Genus *Ancylostoma*, *Uncinaria*, *Bunostomum* or *Globocephalus*)
218. Hookworm Egg* (Family *Ancylostomatidae*; Genus *Ancylostoma*, *Uncinaria*, *Bunostomum* or *Globocephalus*)
219. Horse Bots* (Genus *Gasterophilus*)
220. Horse Strongyles* (Family *Strongylidae*; Genus *Strongylus*)
221. Lice — Biting (Order Mallophaga; Genus *Bovicola* or *Trichodectes*)
222. Lice — Sucking (Order Anoplura; Genus *Linognathus* or *Hematopinus*)
223. Liver Fluke (Class Trematoda; Genus *Fasciola*, *Fascioloides* or *Dicrocoelium*)
224. Mosquito Adult (Family *Culicidae*; Genus *Anopheles*, *Culex* or *Aedes*)
225. Mosquito Larva (Family *Culicidae*; Genus *Anopheles*, *Culex* or *Aedes*)
226. Neutrophils
227. Platelets
228. Red blood cell (erythrocyte)
229. Rod (bacteria)
230. Roundworm Adult* (Family *Ascarididae* or *Toxocaridae*; Genus *Toxocara*, *Toxascaris*, *Ascaris*, *Parascaris* or *Neoascaris*)
231. Roundworm Egg* (Family *Ascarididae* or *Toxocaridae*; Genus *Toxocara*, *Toxascaris*, *Ascaris*, *Parascaris* or *Neoascaris*)
232. Sarcoptic Mite (Family *Sarcoptidae*; Genus *Sarcoptes* or *Notoedres*)
233. Struvite crystals (triple magnesium phosphate)
234. Taenia Tapeworm Egg* (Family *Taeniidae*; Genus *Taenia*)
235. Taenia Tapeworm Segment* (Family *Taeniidae*; Genus *Taenia*)
236. Taenia Tapeworm* (Family *Taeniidae*; Genus *Taenia*)
237. Tick — American Dog (Family *Dermacentor*; Genus *variabilis*)
238. Tick — Black Legged Deer (Family *Ixodes*; Genus *scapularis*)
239. Tick — Brown Dog (Family *Rhipicephalus*; Genus *sanguineus*)
240. Tick — Lonestar (Family *Amblyomma*; Genus *americanum*)
241. Whipworm Egg* (Genus *Trichuris*)
242. Whipworm* (Genus *Trichuris*)
243. Yeast (cytology)

*Asterisk indicates which parasite life cycles could have questions.

Breed/Species Identification List

DOGS

Herding Group

- 300. Australian Cattle Dog
- 301. Australian Shepherd
- 302. Border Collie
- 303. Collie
- 304. German Shepherd Dog
- 305. Old English Sheepdog
- 306. Pembroke Welsh Corgi
- 307. Shetland Sheepdog

Hound Group

- 308. Afghan Hound
- 309. Basenji
- 310. Basset Hound
- 311. Beagle
- 312. Black and Tan Coonhound
- 313. Bloodhound
- 314. Dachshund
- 315. Greyhound
- 316. Rhodesian Ridgeback

Non-Sporting Group

- 317. Bichon Frise
- 318. Boston Terrier
- 319. Bulldog
- 320. Chinese Shar-Pei
- 321. Chow Chow
- 322. Dalmatian
- 323. Poodle

Sporting Group

- 324. Brittany Spaniel
- 325. Cocker Spaniel
- 326. English Setter
- 327. German Shorthaired Pointer
- 328. Golden Retriever
- 329. Irish Setter
- 330. Labrador Retriever
- 331. Weimaraner

Terrier Group

- 332. Bull Terrier
- 333. Cairn Terrier
- 334. Parson Russell Terrier
- 335. Scottish Terrier
- 336. West Highland White Terrier

Toy Group

- 337. Cavalier King Charles Spaniel
- 338. Chihuahua
- 339. Miniature Pinscher
- 340. Papillon
- 341. Pekingese
- 343. Pomeranian
- 344. Poodle
- 345. Pug
- 346. Shih Tzu
- 347. Yorkshire Terrier

Working Group

- 347. Bernese Mountain Dog
- 348. Boxer
- 349. Doberman Pinscher
- 350. Great Dane
- 351. Great Pyrenees
- 352. Mastiff
- 353. Newfoundland
- 354. Portuguese Water Dog
- 355. Rottweiler
- 356. Saint Bernard
- 357. Siberian Husky
- 358. Standard Schnauzer

CATS

- 359. Abyssinian
- 360. American Shorthair
- 361. Burmese
- 362. Maine Coon
- 363. Manx
- 364. Persian
- 365. Ragdoll
- 366. Russian Blue
- 367. Siamese
- 368. Sphynx

BIRDS

- 369. African Gray Parrot
- 370. Canary
- 371. Cockatiel
- 372. Cockatoos
- 373. Love Birds
- 374. Macaw
- 375. Parakeet
- 376. Sun Conure
- 377. Zebra Finch

REPTILES

- 378. Bearded Dragon
- 379. Chameleon
- 380. Gecko
- 381. Iguana

POULTRY

- 382. Chicken — Cornish
- 383. Chicken — Leghorns
- 384. Chicken — Plymouth Rock
- 385. Chicken — Rhode Island Red
- 386. Duck
- 387. Geese
- 388. Quail
- 389. Turkey

SMALL MAMMALS

- 390. Chinchilla
- 391. Ferret
- 392. Gerbils
- 393. Guinea Pig
- 394. Hamster
- 395. Hedgehog
- 396. Sugar Glider

RABBITS

- 397. Angora
- 398. Californian
- 399. Dutch
- 400. English Spot
- 401. Holland Lop
- 402. Mini-Rex
- 403. Netherland Dwarf
- 404. New Zealand

DAIRY CATTLE

- 405. Ayrshire
- 406. Brown Swiss
- 407. Guernsey
- 408. Holstein
- 409. Jersey

BEEF CATTLE

- 410. Angus
- 411. Brahman
- 412. Charolais
- 413. Hereford
- 414. Shorthorn
- 415. Simmental

HORSE

- 416. Appaloosa
- 417. Arabian
- 418. Belgian
- 419. Clydesdale
- 420. Morgan
- 421. Paint
- 422. Percheron
- 423. Quarter Horse
- 424. Saddlebred
- 425. Tennessee Walking Horse
- 426. Thoroughbred

GOAT

- 427. Alpine
- 428. Nubian
- 429. Angora
- 430. Boer
- 431. LaMancha
- 432. Saanen
- 433. Toggenburg

SHEEP

- 434. Columbia
- 435. Dorper
- 436. Dorset
- 437. Hampshire
- 438. Merino
- 439. Rambouillet
- 440. Southdown
- 441. Suffolk

SWINE

- 442. American Landrace
- 443. Berkshire
- 444. Chester White
- 445. Duroc
- 446. Hampshire
- 447. Yorkshire