



AVMA COE ACCREDITATION SELF STUDY 2021

APPENDIX



MISSISSIPPI STATE UNIVERSITY™
COLLEGE OF VETERINARY MEDICINE



EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Table A. Major Changes Since October 2014 Site Visit

	FY 2014	FY 2021	% Change	Notes
Revenue:				
State Appropriations	18,155,269	17,494,212	-3.64%	State appropriation for FY2022 is \$18,154,397
Tuition (DVM) Received	10,035,658	14,456,653	44.05%	
Gifts & Endowment Income	1,244,067	4,026,868	123.21%	
Sponsored Program (only)	6,482,411	5,369,156	-17.17%	The FY 2021 figure does not include new NIH U01 grant (\$3.37 M) and GOMESA (Gulf Aquatic Health) grant (\$2.2 M).
Diagnostic Lab System	1,788,832	3,376,631	88.76%	
Total College Revenue	51,819,126	63,483,898	22.51%	
Expenditures:				
Instruction/Acad Supp/Student	10,920,103	14,527,650	33.04%	
Teaching Hospital (AHC)	7,026,499	13,631,083	94%	
Diagnostic Lab System	8,409,147	11,103,016	32.03%	
Total Research (Extram+State)	12,085,937	16,318,111	35.02%	
Extension & Public Service	856,079	441,625	-48.41%	
Other Metrics:				
Applications, In-State	92	115	25%	
Application, Non-Resident	896	1123	25%	
Number of DVM Students	328	400	22%	
Caseload (AHC, AERC, VSC, Shelter Program)	29,103	30,738	5.6%	
Number of Farm (site) Calls	1,295	798	-38%	
Number of Full-time Faculty	110	121	10%	
Number of Board-Certified Faculty	56	64	14%	
Number of Interns/Residents	34	41	20%	
Number of Graduate Students	74	64	-13%	
Five-year NAVLE pass rate	97.2%	98%	0.8%	
Three-year average unique peer-reviewed publications	104	138	33%	



APPENDIX STANDARD 1

Organization

APPENDIX STANDARD 1: Organization

College Cabinet and Major Committees*

Academic Standards and Professional Ethics Committee: Considers student appeals for grades and dismissal from the professional program. Advisory to dean. Four faculty members, one elected from each academic department and one at-large elected by the Faculty Organization, serve three-year terms. Members may be re-elected to a second term.

Admissions Committee: Selects students for admission to DVM program. Establishes criteria for the selection of prospective students. Conducts application evaluations and interviews of applicants. The committee (14 members) consists of elected and appointed faculty from each academic department. Members serve three-year terms and may be re-elected or reappointed to a second term.

Animal Health Center Board: The hospital board meets monthly to address proposals, suggestions, and concerns submitted by service chiefs, faculty, staff, students, clients, or referring veterinarians related to the small and large animal hospitals, patient care, and client services. Members include the associate dean for administration, assistant dean for clinical services/hospital director, head of the department of clinical sciences, head of the department of pathobiology and population medicine, two clinical faculty members selected by the faculty, and a clinical staff member selected by the staff. Faculty and staff serve for three years and are eligible for reappointment.

Biosafety and Biosecurity Committee: Committee provides oversight necessary for a safe and secure environment for patients, the public, faculty, staff, and students. Members serve indefinite terms, are appointed by dean, and represent various college jurisdictions. Chaired by assistant dean for clinical services/AHC director. Members are faculty from small animal, equine, and food animal services, CVM off-campus sites, diagnostic laboratories, laboratory animal medicine, and staff from the teaching laboratories.

Cabinet: Principal administrative body of the CVM. Members advise dean on matters included in the mission statement and on operations of the College. Members also establish and implement policies and communicate between faculty and staff administration. Members are the associate dean for administration, associate dean for academic affairs, associate dean for research and graduate studies, assistant dean for clinical services/AHC director, heads of the three academic departments, director of the diagnostic laboratory system, director of admissions, director of the veterinary medical technology program, director of enhanced clinical education, chair of the CVM Diversity and Inclusion Committee, chair of the Faculty Organization, and fiscal officer. Indefinite term lengths served based on appointment.

Curriculum Committee: Provides forum and serves as oversight body to assure quality of current curriculum and future curricular changes. Two faculty members are elected from each of three academic departments. One student is elected (by students) from Phase 1 and two students are elected from Phase 2. Terms for faculty are four years. No faculty member may serve more than two consecutive terms but is eligible to stand for election after being off the committee for a year. Students serve one-year terms but are eligible for re-election.

Disaster and Emergency Response Committee: Serves the College by managing the CVM's safety plan and the state of Mississippi by providing veterinary emergency preparedness planning, training, and services. Emergency preparedness activities focus on disasters that threaten the health and well-being of animals or require the services of veterinarians trained in public health. The chair is appointed by the dean and serves a two-year term (eligible for reappointment). The secretary is selected by committee members and serves a two-year term.

APPENDIX STANDARD 1: Organization

Diversity and Inclusion Committee: The committee is advisory to the dean and works to create and sustain a welcoming, supportive, and inclusive College climate for all faculty, staff, students, and visitors. It assists in the recruitment of students from underrepresented populations, the recruitment and retention of under-represented populations into faculty, staff, and leadership positions, and the development of outreach programs for Mississippi communities that are under-represented in veterinary medicine. The chair serves a two-year term and on the CVM Deans Cabinet. Members serve three-year, staggered terms; may be elected by their department or volunteer; and may serve sequential terms.

Faculty Organization: All non-administrative CVM faculty who wish to participate. Meets on first Thursday of each month. Takes on projects (grassroots approach) of faculty interest. Conducts elections for College-wide positions. Elects a chair (two-year term, renewable) who becomes a participating member of the dean's cabinet and a secretary (two-year term, renewable).

Funding International Student Travel Committee: Reviews student applications for international travel grants (including study abroad programs in Uganda, FAO, and the USAID Fish Innovation Lab) and makes recommendations on funding. Consists of three faculty members with experience and interest in international veterinary medicine. Terms are staggered, and members may serve two consecutive three-year terms.

Graduate Program Advisory Committee: Members are elected to represent each of the College's departments (three-year terms, renewable). Committee reviews the College's graduate program policies to ensure compliance with MSU requirements and aids in distribution of College-funded graduate stipends.

Non-Tenure Track (NTT) Promotion Committee: NTT faculty have all the rights of tenure track faculty with the exception of participating in tenure decisions. Committee uses standards from College and reviews applications for promotion for non-tenure (clinical and research) track faculty and recommends to the dean actions regarding faculty promotions. Members (at least five) at rank of associate (clinical or research) professor and above are elected by a majority vote of the College's full-time non-tenure track faculty. Members may serve two consecutive three-year terms. Terms are staggered.

Parking and Access Committee: The committee provides recommendations to MSU Traffic Committee regarding parking and traffic needs for the Wise Center and oversees access to CVM buildings and grounds to maintain a safe and secure environment for study and working. Members are appointed by the dean and consist of the building services supervisor, CVM representative to MSU Traffic Committee, and four CVM faculty members.

Policies and Procedures Committee: The committee is chaired by the assistant dean for clinical services and consists of faculty and staff who regularly and systematically review all College policies and procedures and makes recommendations for updates and revisions. Members serve according to position, including pathobiology & population medicine manager, research program manager, academic affairs manager, dean's office administrative assistant, Animal Health Center administrative assistant, and veterinary technology program's administrative assistant.

Promotion and Tenure Committee: Committee applies standards as stated in College and University promotion and tenure documents and recommends to the dean actions regarding faculty applications for promotion and/or tenure. Members include a tenured faculty member elected by each academic department plus two elected at-large by the Faculty Organization. Serve three-year terms and may serve two consecutive terms.

APPENDIX STANDARD 1: Organization

Recruitment Team: Recruits prospective students for admission to DVM program. Advises prospective students on DVM program requirements. The team consists of 10 faculty from various academic departments.

Research Advisory Committee: Committee advises dean and associate dean for research and graduate studies on the College's research mission and recommends guidelines for research. The associate dean for research and graduate studies appoints two research-intensive faculty who serve at the pleasure of the dean and associate dean for research and graduate studies. Other members include the heads of the three academic departments and the executive director of the diagnostic laboratory system.

Scholarship Committee: Committee distributes information on scholarships to CVM students, reviews scholarship applications, and selects recipients of MSU Foundation and other scholarships. Two members are elected to three-year terms from each of the three academic departments and they may serve successive terms. The director of admissions is ex-officio to the committee.

** List of individuals on each committee will be available at the site visit.*



APPENDIX STANDARD 2

Finances

APPENDIX STANDARD 2: Finances

EXPENDITURES FOR IMMEDIATE PAST FIVE FISCAL YEARS

TABLE A

Expenditure	Fiscal year					% change
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	
Instruction, academic support, and student services ^{1,2}	12,227,050	12,614,323	13,202,244	14,399,721	14,527,650	18.82%
Research expenditures ¹	14,419,896	14,640,840	16,107,051	18,580,744	16,318,111	13.16%
Outreach/continuing education ¹	468,701	406,542	442,784	437,219	441,625	-5.78%
Teaching hospital ¹	12,382,388	12,409,791	13,923,561	15,081,465	13,631,083	10.08%
Diagnostic lab and other clinical labs	8,071,100	8,446,799	9,421,406	9,334,169	11,103,016	37.57%
Facilities operations and maintenance, utilities, and other expenditures for infrastructure ³	2,971,347	3,114,815	3,133,335	3,361,442	2,789,207	-6.13%
Capital expenditures (renovations and new construction) ⁴	206,886	867,815	1,344,239	999,568	1,762,972	752.15%
Student aid (extramurally sponsored grants to students selected by the institution)	63,649	69,729	99,290	101,280	85,172	33.82%
Student aid (university-sponsored aid to students, inclusion of gifts and endowment income)	726,385	680,029	962,495	1,047,839	1,107,799	52.51%
Other expenditures	353,756	369,664	520,682	288,214	284,166	-19.67%
Total expenditures⁵	51,891,158	53,640,347	59,157,087	63,631,661	62,050,801	19.58%

EXPENDITURE TABLE FOOTNOTES

E1, E2, E3, E4¹ These should include salary, wages and fringe benefits for faculty and staff engaged in each category of activity (instruction, research, and outreach/continuing education and teaching hospital services).

E1² For distributed models of clinical education, this should include fees paid to clinical hosts.

E6³ If colleges are assessed fees for infrastructure support provided by the university, they should be recorded here. These could include expenditures for facilities operations and maintenance (O&M), utilities, and central university administration.

E7⁴ Capital expenditures include the acquisition and maintenance of fixed assets, such as land, buildings, and equipment. If capital expenditures are paid from college resources, they should be entered here.

E10⁵ This should be the sum of expenditure rows 1-9.

APPENDIX STANDARD 2: Finances

COLLEGE REVENUE FOR IMMEDIATE PAST FIVE FISCAL YEARS

TABLE B

Revenue	Fiscal year					% change
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	
Government appropriation to college ¹	17,839,833	17,216,407	17,722,083	18,108,170	17,494,212	-1.94%*
University appropriation to college (If veterinary student tuition is returned in this appropriation, subtract it and include it in line 3.) ²	75,839	84,014	84,781	86,053	86,053	13.47%
Revenue derived from students (tuition and other fees) that is available for college use.** (Do not include any amount kept by or remanded to the university for central university use.) ³	11,214,558	13,307,654	13,800,252	14,250,952	14,456,653	28.91%
Tuition and fee revenue paid by other entities on the students' behalf (e.g., educational contracts & fees for clinical instruction) ⁴	1,084,270	1,192,270	1,230,280	1,213,530	1,467,664	35.36%
Teaching hospital revenue ⁵ (All locations)	9,917,205	11,000,607	11,869,417	11,723,044	13,242,204	33.53%
Diagnostic lab and other clinical lab revenue ⁶ (All locations)	1,998,168	2,649,437	2,893,453	2,907,652	3,376,631	68.99%
Extramural grants and contracts ⁷	7,255,980	7,451,138	9,020,953	8,695,287	5,369,156	-26%***
Overhead (indirect costs or F&A) returned to the college, department, or faculty member	1,185,488	1,201,481	1,316,192	1,548,405	1,372,078	15.74%
Current year gifts and endowment income ⁸	4,937,432	2,346,223	2,763,205	3,073,687	4,026,868	-18.44%
Other revenue (CE registration, certificate program enrollment, IP royalties, and other miscellaneous revenue)	840,579	675,378	1,384,644	883,693	771,411	-8.23%
Total revenue ⁹	59,426,846	62,429,957	65,109,092	64,859,981	63,483,898	6.83%
Funds carried forward from previous year (college, department, and faculty)	3,077,494	5,305,348	3,023,832	2,369,508	1,820,968	-40.83%

*State appropriation for FY2021 was decreased due to the COVID-19 pandemic. State appropriation for FY2022 is \$18,154,397.

**Revenue derived from students includes tuition from the Veterinary Medical Technology program. For FY2021, the CVM received \$483,144 in tuition from the VMTP.

***The FY2021 figure does not include new (August 2021) NIH U01 grant (\$3.37 M) and GOMESA (Gulf Aquatic Health) grant (\$2.2 M).

APPENDIX STANDARD 2: Finances

REVENUE TABLE FOOTNOTES

R1¹ Includes all appropriated public funds (state, province, region, country, etc.). Include salaries and fringe benefits for positions supported directly by the government, if any.

R2² If tuition is returned to the college from the university, calculate student-derived revenue as the product of enrollment and tuition & fee rate (line R3) and subtract this amount from the university appropriation. Enter the remaining appropriation here.

R3³ Line 3 includes all revenue derived from students (tuition and related fees) paid directly to the college or as a part of the university allocation to the college. If this number is not known, calculate student-derived revenue as the product of enrollment and tuition & fee rate. Enter that number here.

R4⁴ Line 4 should include any revenue derived from contracts for providing veterinary student instruction (regional contracts, independent state-to-college contracts, contracts between colleges for clinical education, etc.).

R5⁵ Revenue generated by hospital services. Government and university support for the teaching hospital should be reported in rows 1 and 2, respectively.

R6⁶ Revenue generated by clinical laboratories. This should not include revenue reported for the teaching hospital in line 3. Government and university support for clinical laboratories should be reported in rows 1 and 2, respectively.

R7⁷ Total direct extramural awards. Also include awards that flow through university foundations. This should include grants for scholarly work related to research, instruction, and outreach, but should not include contracts to provide instruction (e.g., clinical year instruction for students from other institutions or contracts through which other states pay for instruction of residents of that state).

R8⁸ Exclude planned gifts. Also exclude research funded through foundations already reported in line 7.

R11⁹ This should be the sum of revenue rows 1-10.

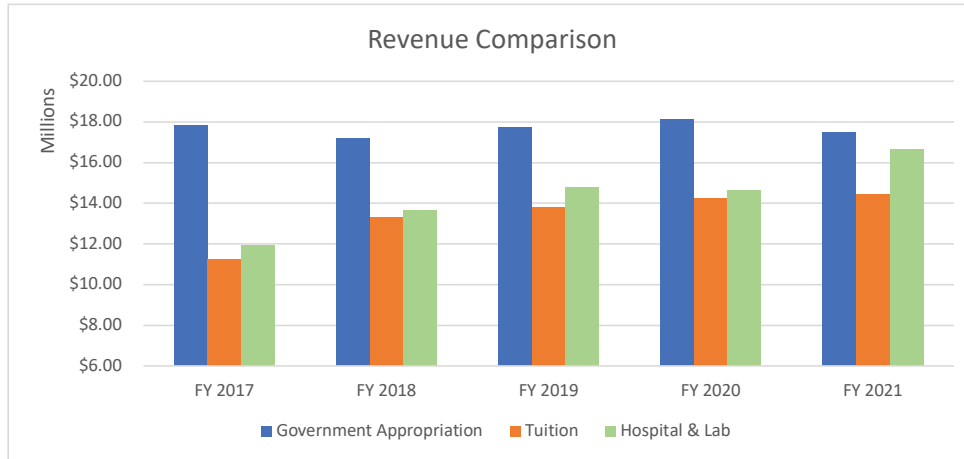
ENDOWMENT

TABLE C

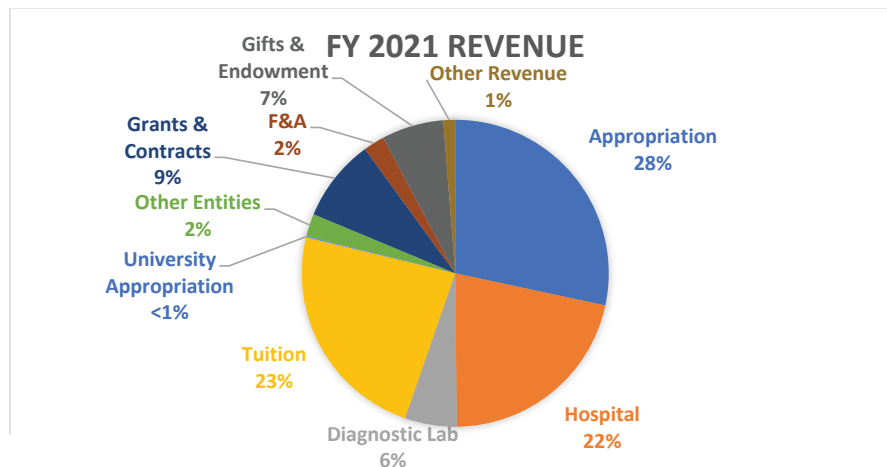
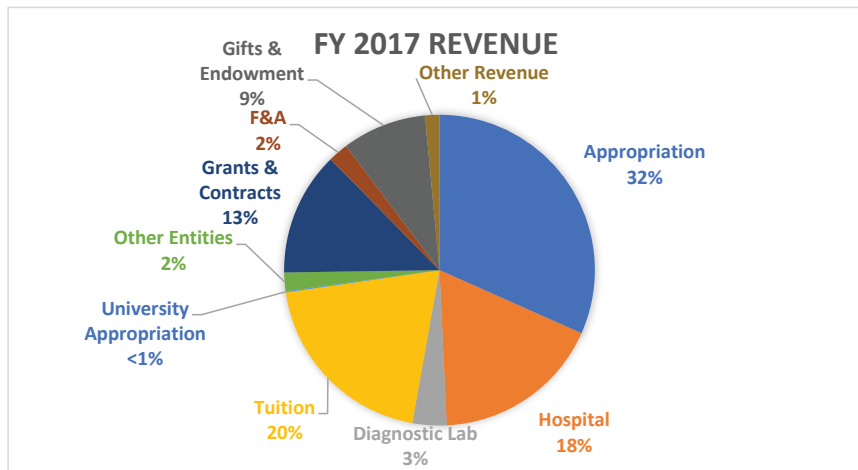
Endowment	Fiscal year					% change
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	
True endowment market value	23,540,500	24,457,108	25,033,333	24,663,003	25,970,882	10.32%

APPENDIX STANDARD 2: Finances

Bar graph comparing CVM revenue sources from FY2017 to FY2021



Pie graphs comparing CVM revenue sources in FY2017 and FY2021





APPENDIX STANDARD 3

Facilities and Equipment

APPENDIX STANDARD 3: Facilities and Equipment



1. Starkville

College of Veterinary Medicine
Animal Health Center
CVM Diagnostic and
Aquatics Labs

2. Starkville

Veterinary Specialty Center

3. Stoneville

Aquatic Research &
Diagnostic Lab

4. Flowood

Animal Emergency and
Referral Center

5. Pearl

MS Veterinary Research &
Diagnostic Lab
Poultry Research & Diagnostic Lab

6. Gulfport

Institute for Marine Mammal Studies

APPENDIX STANDARD 3: Facilities and Equipment





APPENDIX STANDARD 4

Clinical Resources

APPENDIX STANDARD 4: Clinical Resources

Teaching Hospital

Table A.1 Clinical Resources – On-campus facilities

Species	FY2021		FY2020		FY2019		FY2018		FY2017	
	Visits	Hosp	Visits	Hosp	Visits	Hosp	Visits	Hosp	Visits	Hosp
canine	8,795	2,206	7,698	1,985	8,291	1,819	8,045	1,698	8,150	1,684
feline	1,584	318	1,289	216	1,262	186	1,287	172	1,206	199
bovine	1,011	227	894	222	910	178	928	215	1,009	239
small ruminant	181	74	168	60	191	60	206	74	213	69
equine	1,578	612	1,529	523	1,413	487	1,359	471	1,273	385
porcine	30	7	36	19	47	10	44	12	23	9
caged birds	7	0	9	0	26	0	35	1	22	0
caged mammals	61	3	50	0	37	0	41	5	19	0
Avian / wildlife	10	1	7	0	6	0	8	0	4	0
other	78	15	84	13	79	5	66	2	73	1
TOTAL	13,335	3,463	11,794	3,038	12,262	2,745	12,019	2,650	11,992	2,586

Patient visits - total number of times the patient visits the hospital (if Buffy visits the hospital 3 times this year, this would count as 3 visits). Hospitalized - number of patients that were hospitalized.

Table A.2 Clinical Resources – Cases seen by students on the population medicine rotation (excluding MSU farms). *

Species	FY2021		FY2020		FY2019		FY2018		FY2017	
	Visits	Animals Seen	Visits	Animals Seen	Visits	Animals Seen	Visits	Animals Seen	Visits	Animals Seen
canine	Multiple Shelters	30	Multiple Shelters	49	Multiple Shelters	101	Multiple Shelters	61	Multiple Shelters	150
feline			Multiple Shelters	14	Multiple Shelters	16	Multiple Shelters	40	Multiple Shelters	23
bovine	2	110	17	854	11	593	6	604	1	40
small ruminant	4	155			4	138	3	141		
porcine	10	100 per visit	10	100 per visit.	10	100 per visit.	10	100 per visit	10	100 per visit
caged birds			1	300						
rabbits			1	120	3	625				
guinea pigs			1	440						
alpacas					2	35				
horses			1	9						

* All Year-3 students participate in a core population medicine clinical rotation. In this rotation, they are involved in conducting problem-solving investigations in populations of animals (e.g., disease outbreaks in kennels, feedlots, aviaries, etc.). Species may vary. Canine and feline “patients” listed in this table were not part of the spay/neuter program.

APPENDIX STANDARD 4: Clinical Resources

Table A.3 Clinical Resources – Cases seen by students in the Shelter Medicine Program*

Shelter Medicine Program Clinical Cases Managed by Students						
Fiscal Year	“Shelter Medical Days” Case Load	Mobile Surgical Case Load	On-campus spay/neuter Facility Case Load	OCHS partnership case load <i>*Began May 2020*</i>	Total surgical caseload	Grand Total
2017	435	7,763	0	n/a	7,763	8,198
2018	1,351	5,276	1,723	n/a	6,999	8,350
2019	934	3,872	3,276	n/a	7,148	8,082
2020	1,404	1,958	3,865	254	6,077	7,481
2021	1,615	N/A	4,787	1,910	6,697	8,312

Table B Clinical Resources – college owned and operated off-campus facilities (AERC and VSC)

Species	FY2021		FY2020		FY2019		FY2018		FY2017	
	Visits	Hosp	Visits	Hosp	Visits	Hosp	Visits	Hosp	Visits	Hosp
canine	8,029	1,942	8,366	2,031	8,033	1,941	6,863	1,659	6,182	1,484
feline	1,025	173	1,162	194	1,126	190	1,040	174	892	149
bovine	0	0	1	0	0	0	0	0	0	0
small ruminant	0	0	4	0	2	0	1	0	1	0
equine	0	0	1	0	0	0	1	0	1	0
porcine	0	0	3	0	1	0	2	0	1	0
caged birds	5	1	7	1	12	2	7	1	4	0
caged mammals	22	4	25	4	31	5	25	4	18	3
wildlife	4	0	4	0	11	2	1	0	5	1
other	6	0	8	1	6	1	4	0	5	1
TOTAL	9,091	2,120	9,581	2,231	9,212	2,141	7,944	1,838	7,109	1,638

Patient visits - total number of times the patient visits the hospital (if Buffy visits the hospital 3 times this year, this would count as 3 visits). Hospitalized - number of patients that were hospitalized.

Summary of Clinical Resources: Canine and feline cases seen in college-owned facilities and shelters – all locations supervised by CVM regular faculty (Tables A.1, A.3, B).

	FY2021	FY2020	FY2019	FY2018	FY2017
Canine + Feline	27,745	25,996	26,794	25,585	24,628

APPENDIX STANDARD 4: Clinical Resources

Table C Clinical Resources – Documented cases CVM students assisted with during externship experiences at privately owned and operated facilities over the past two years (data from students’ required case logs).

Species	2021	2020
Canine	18,425	19,357
Feline	4,311	5,332
Equine	1,723	3,668
Bovine	27,077	21,204
Small Ruminant	465	162
Porcine	187	33
Poultry	262	918
Camelid	24	21
Exotics/Wildlife	2,314	947

Ambulatory/Field Service Program

Table D Clinical Resources – college owned and operated ambulatory services.

Species	FY2021		FY2020		FY2019		FY2018		FY2017	
	No. Farm Calls	No. Animals Treated	No. Farm Calls	No. Animals Treated	No. Farm Calls	No. Animals Treated	No. Farm Calls	No. Animals Treated	No. Farm Calls	No. Animals Treated
Bovine	470	20,886	484	19,810	470	22,857	555	24,040	698	23,577
Caprine	54	396	3	22	12	143	5	53	13	241
Equine	296	1,433	226	552	332	952	391	1,295	397	894
Ovine	13	141	25	145	16	61	7	11	9	18
Porcine	2	101	12	699	18	1,206	8	17,351	23	17,206
Other	5	215	19	569	44	1,112	52	9,532	72	4,196
TOTAL	840	23,172	769	21,797	892	26,331	1,018	52,282	1,212	46,132

Number of Farm (site) Calls — total number of calls/visits made to farms/operations Number of Animals Examined/Treated — number of individual animals examined/treated.

Include only those patients, farm calls, and animals examined that have direct student involvement.

APPENDIX STANDARD 4: Clinical Resources

Herd/Flock Health Program

Table F

	FY	Describe your clinical resources for production medicine training by production group below
Dairy	FY17	5,384 dairy cattle seen during 104 farm visits. Visits involve routine reproduction evaluations and herd performance assessments.
	FY18	6,220 dairy cattle seen during 105 farm visits. Visits involve routine reproduction evaluations and herd performance assessments.
	FY19	3,822 dairy cattle seen during 83 farm visits. Visits involve routine reproduction evaluations and herd performance assessments.
	FY20	3,175 dairy cattle seen during 93 farm visits. Visits involve routine reproduction evaluations and herd performance assessments.
	FY21	3,790 dairy cattle seen during 109 farm visits. Visits involve routine reproduction evaluations and herds performance assessments.
Beef Stocker Operations	FY17	1,347 stocker cattle seen during 29 visits.
	FY18	1,857 stocker cattle seen during 23 visits.
	FY19	4,505 stocker cattle seen during 54 visits.
	FY20	4,898 stocker cattle seen during 49 visits.
	FY21	3,327 stocker cattle seen during 32 visits.
Cow-Calf	FY17	14,373 cattle seen during 194 farm visits.
	FY18	13,122 cattle seen during 196 farm visits.
	FY19	11,386 cattle seen during 172 farm visits.
	FY20	11,607 cattle seen during 239 farm visits.
	FY21	13,769 cattle seen during 329 farm visits.
Small Ruminants	Fy17	12 patients seen during 1 farm visit.
	FY18	35 patients seen during 1 farm visit.
	FY19	161 patients seen during 8 farm visits.
	FY20	143 patients seen during 13 farm visits.
	FY21	537 patients seen during 67 farm visits.
Swine	FY17	8,860 pigs seen during 10 farm visits.
	FY18	2,349 pigs seen during 4 farm visits.
	FY19	400 pigs seen during 5 farm visits.
	FY20	690 pigs seen during 4 farm visits.
	FY21	101 pigs seen during 2 farm visits.

APPENDIX STANDARD 4: Clinical Resources

Poultry	FY17	384 flock health farm visits or field flock health surveillance sessions. 272 hatchery visits, hatchery microbiological monitoring checks, day old chick health checks, and/or processing plant visits. Students participate in visits to 25 sites (approx. 2,500,000 birds).
	FY18	404 flock health farm visits or field flock health surveillance sessions. 239 hatchery visits, hatchery microbiological monitoring checks, day old chick health checks, and/or processing plant visits. Students participated in visits to 72 sites (approx. 6,100,000 birds).
	FY19	344 flock health farm visits or field flock health surveillance sessions. 216 hatchery visits, hatchery microbiological monitoring checks, day old chick health checks, and/or processing plant visits. Students participate in visits to 39 sites (approx. 2,900,000 birds).
	FY20	Visited 54 farms, 7 hatcheries, 214 flocks at posting sessions, and 136 pullet chick checks. Visits were decreased due to biosecurity restrictions during the COVID-19 pandemic. Students participated in visits to 32 sites (approx. 2,500,000 birds).
	FY21	Students participated in a review of poultry diseases and virtual tours of the vertically integrated poultry industry beginning in June 2020 (pandemic- poultry companies did not permit on-site visits from March 2020 through July 2021). The “tour” includes vaccination procedures, hatchery designs,
Fish	FY17	1 visit to a large, multiple pond commercial fish farm
	FY18	0
	FY19	6 visits to large, multiple pond commercial fish farms
	FY20	1 visit to a large, multiple pond commercial fish farm
	FY21	1 visit to a large, multiple pond commercial fish farm
Equine	FY17	145 horses seen during 20 equine farm visits
	FY18	328 horses seen during 20 equine farm visits
	FY19	443 horses seen during 43 visits to one equine farm
	FY20	338 horses seen during 57 equine farm visits
	FY21	1,433 horses seen during 296 equine farm visits
Other: Cervid, Exotics Shelter	FY17	420 animals seen during 3 visits to a cervid/exotics shelter
	FY18	984 animals seen during 7 visits to a cervid/exotics shelter
	FY19	1,000 animals seen during 7 visits to a cervid/exotics shelter
	FY20	535 animals seen during 9 visits to a cervid/exotics shelter
	FY21	215 animals seen during 5 visits to a cervid/exotics shelter

APPENDIX STANDARD 4: Clinical Resources

Table G– Number of Necropsies Involving Students.

Species	FY2021	FY2020	FY2019	FY2018	FY2017
Canine	292	279	310	292	303
Feline	71	85	91	68	92
Bovine	244	208	177	180	115
Caprine	51	28	26	39	23
Equine	78	71	78	92	68
Ovine	18	20	13	13	7
Porcine	8	3	8	14	7
Poultry	11	7	11	2	4
Other Birds	4	6	8	11	19
Non-Avian Exotics	4	8	19	8	13
<i>Lepidochelys kempii</i> (Sea turtle)	1	4	14	3	11
<i>Caretta caretta</i> (Sea turtle)	0	2	1	1	1
<i>Chelonia mydas</i> (Sea turtle)	0	1	2	0	0
<i>Tursiops truncatus</i> (Bottlenose Dolphin)	18	46	61	6	16
<i>Feresa attenuata</i> (Pygmy Killer Whale)	0	1	0	0	0
TOTAL	800	769	819	729	679

Off-Campus Facilities

Table H Clinical Resources – off-campus facilities

HOSPITAL, CLINIC, SHELTER	REQUIRED ROTATION FULFILLED	ROTATION DURATION (WEEKS)	AVG. NO. STUDENTS PER YR.	SURGERY Y/N	NECROPSY Y/N	CLIN PATH (Y/ON SITE, Y/OFF SITE)	IMAGING Y/N	ICU Y/N	ISOLATION Y/N	MOST RECENT ANNUAL CASELOAD BY SPECIES FOR THE FACILITY					NEW OR REINTRO DUCED SITE	
										CANINE	FELINE	EQUINE	BOVINE	SM RUM		OTHER
AERC	Yes	2 weeks	All (required)	Y	N	onsite	Y	Y	Y	0	977	0	0	0	37	
VSC	Yes	4 weeks	All (required)	N	N	offsite	Y	N	N	0	48	0	0	0	0	
OCHS	Yes	1 week	All (required)	Y	N	offsite	N	N	N	0	1,274	0	0	0	10	
IMMS	No	varies	82	Y	Y	onsite	Y	N	Y	0	0	0	0	0	0	See below**

AERC=Animal Emergency and Referral Center, VSC= Veterinary Specialty Center, OCHS=Oktibbeha County Humane Society, IMMS-Institute for Marine Mammal Studies

* IMMS Caseload Wild Population

Species	FY2021	FY2020	FY2019	FY2018	FY2017
Lepidochelys kempii (Sea turtle)		21	28	29	15
Chelonia mydas (Sea turtle)			2		
Caretta caretta (Sea turtle)			3		
Tursiops truncatus (Bottlenose Dolphin)		1	3	2	1
Peponocephala electra (Melon headed whale)				1	
Steno bredanensis (Rough toothed Dolphin)			1		
Stenella attenuata (Pantropical spotted dolphin)			1		
Feresa attenuata (Pygmy Killer Whale)		1			

* IMMS Caseload Resident Animals

Species	Fy2021	FY2020	FY2019	FY2018	FY2017
Tursiops truncatus (Bottlenose Dolphin)		6	6	6	6
Common Dolphin/Tursiops truncatus (Bottlenose dolphin)		1	1	1	1
Zalophus Californianus (California Sea lions)		7	7	6	6
Rhinoptera bonasus (Cownose Rays)		40	38	37	35
Snakes		7	7	5	5
Birds		6	6	6	5

APPENDIX STANDARD 4: Clinical Resources

Off-Campus Facilities

Table I

Off campus site: Number & educational experience	Duration of rotation	Number of students per year	Faculty mentor approved (check)		Off site Evaluator	Written educational objective(s) (check)		Educational outcomes assessed & student evaluations reviewed (check)	
			Yes	No		Yes	No	Yes	No
Animal Emergency & Referral Center - 4 th year rotation	2 weeks	All (required)	✓		CVM Faculty Members	✓		✓	
Veterinary Specialty Center- 4 th year rotation	4 weeks	All (required)	✓		CVM Faculty Members	✓		✓	
OCHS	1 week	All (required)	✓		CVM Faculty Member (Dr. Alex Sheely)	✓		✓	
IMMS	varies	82 of 88 students in 2019 13 students in 2020 34 students in 2021	✓		CVM Faculty Members (Drs, Debra Moore, Christa Barrett. others)		✓		✓

OCHS=Oktibbeha County Humane Society, IMMS=Institute for Marine Mammal Studies

APPENDIX STANDARD 4: Clinical Resources

Community Veterinary Services Rotation (6 week core 3 rd year rotation)* Activities in addition to traditional "first opinion" small animal cases		
Activity	Time and/or Frequency for each 8-week rotation	Description
Medical Days at area animal shelters	4 days	Students, accompanied by a faculty member, conduct physical exams, learn about biosecurity, infectious disease control, and population medicine.
Lunch and Learn meetings	6 sessions	Topics include vaccinology, heartworm disease, NSAID use in practice, and flea and tick control presented by veterinarians from pharmaceutical industry.
Topic rounds	M-Th from 8-9am Fridays 9-10am	Topics include dermatology, dentistry, shelter medicine, ophthalmology, and communications.
Dental Extraction and Pain Management Lab	3 hours	Students perform dental procedures on canine cadaver heads.
Reptile Handling Lab	1 hour	Students handle snakes and other pet reptiles and learn best husbandry practices and examination techniques
Small Mammal Handling Lab	2 hours	Students handle small mammals and learn best husbandry practices, common illnesses, and examination techniques
Dermatology cases	3 days	Each student spends 3 days with Dr. Juli Gunter, DACVD seeing cases
Communications training	4 hours	Students receive training in communicating with clients, colleagues, and referring veterinarians
Videotaping and feedback	6-8 hours	Students are taped during their interactions with clients and then given feedback on exam room techniques. During the pandemic when curbside service was used, this was accomplished using mock client interaction via WebEx and telephone interviews
Fireside Chats	1-3 times per week	Faculty members cover topics of interest, such as interpreting EKGs, diabetic case management, dental homecare, etc.

APPENDIX STANDARD 4: Clinical Resources

Cedar Hill Animal Sanctuary (elective)	1 day per rotation	Students travel to sanctuary with faculty member where they get hands-on experience with exotic species including animal husbandry practices and basic care (e.g., nail and beak trimming.)
Partners for Healthy Pets Nutrition Modules	5 online modules	Students complete five online nutrition modules focusing on nutritional support of small animal patients. Students also complete two nutritional assessments on patients seen during the rotation
VetVance[®] Business Course	9 modules	Students complete nine online business modules covering topics such as client service, financial decision-making, and interview skills.
Fear Free Certification	8 modules	The Fear Free [®] modules help students recognize the signs of stress and anxiety in their small animal patients. Students will be Fear Free certified after completion.
Avian Handling Lab	1.5 hours	Students learn about pet bird husbandry, handling techniques, as well as blood draws, passing feeding tubes, and administering fluids using chickens as models.
Clinical Skills Hematology Suite	2 hours	Teaching models are used to train students in a suite of hematological techniques including bone marrow aspiration, bone marrow core biopsy, preparation of aspiration and core biopsy samples, blood smears, manual platelet estimates, and saline slide agglutination.

*Community Veterinary Services (CVS) is a 6-week core Year-3 rotation. Typically, 12 students are in the rotation. Twenty-three days are spent seeing primary care patients, 3 days spent working with the dermatologist, 4 days spent at an animal shelter, and the remaining time spent as described in the above table.

APPENDIX STANDARD 4: Clinical Resources

CVM Communications Training

Professional Development I Course and CVS Clinical Rotation

PHASE I STUDENTS

- The communication curriculum introduces communication background, theory, and clinical communication tools during first and second year in the Professional Development courses.

PHASE II STUDENTS

- The veterinary student communication training program began in 2013. The current curriculum consists of:
 - Four 1-hour topic rounds (led by Dr. Jesse Grady) during the CVS rotation (relationship-centered communication):
 - Open-ended question exercise
 - Reverse-engineering question development exercise
 - Introduction to clinical communication, clinical reasoning, medical problem solving.
 - End-of-life communication and euthanasia guidelines
 - Client:student interaction videos are reviewed with students five times during every six-week rotation. Privacy rules are set at the beginning to maintain client anonymity, decrease student stress during the review, and to encourage open discussion.
- **COVID curriculum:** During the initial stages of the pandemic the Animal Health Center reverted to an emergency only schedule, effectively eliminating student opportunities for client interaction. During this time, communications training included:
 - Four 1-hour topic rounds via WebEx covering the following:
 - Open-ended question exercise
 - Reverse-engineering question development exercise
 - Introduction to clinical communication, clinical reasoning, medical problem solving.
 - End-of-life communication and euthanasia guidelines
 - Pet owners were recruited to interact with veterinary students in mock virtual visits (47 owners enrolled). Students were assigned a case, a reason for the visit, specific communication tools to work on. Clients were assigned a reason for visit and a list of real or sham concerns to mention. All CVS students observed and took notes if they were not participating on that given day. Each mock interaction lasted 10-15 minutes, followed by an opportunity for the client to give feedback, and then a 5-10-minute group debriefing before the second case started.
 - Five Monday communication rounds per rotation. New exercises were devised.
 - Eliciting the client perspective exercise (groups of 2).
 - Shared decision-making diagramming and exercise.
 - Empathy statement diagramming and exercise.
 - Digital Communication Website Evaluation utilizing Texas A&M's shared PCVE modules.
 - Free week- students select various activities based on needs and preferences. Typically utilizing the "What Would You Do" exercise based on real cases or listening to and providing feedback on Dr Grady's personal training videos from FRANK sessions at CSU.



APPENDIX STANDARD 6

Students

APPENDIX STANDARD 6: Students

Complete the following tables describing enrollment for each of the last five years:

Table A. Veterinary Medical Program

Class	2017	2018	2019	2020	2021
First-year	91	95	95	96	114
Second-year	89	90	95	95	97
Third-year	82	91	90	91	95
Fourth-year	81	82	91	88	94
# Graduated	81	82	91	88	91

Table B. Interns, Residents, and Graduate Students (enter each person in only one category) per year for last five years.

Department	Year	# Interns	# Residents	# Resident-MS	# Resident-PhD	#GRA MS	#GRA PhD
Department of Clinical Sciences	FY17	12	10	7	1	5	4
	FY18	12	9	9	0	3	4
	FY19	8	10	11	0	2	4
	FY20	11	4	13	0	2	5
	FY21	11	5	10	0	3	2
Department of Pathobiology and Population Medicine	FY17	3	0	2	2	2	5
	FY18	2	2	3	1	1	7
	FY19	3	2	3	2	2	4
	FY20	4	4	5	1	1	4
	FY21	4	5	4	2	2	6
Department of Comparative Biomedical Sciences	FY17	0	0	0	0	5	38
	FY18	0	0	0	0	6	39
	FY19	0	0	0	0	6	31
	Fy20	0	0	0	0	7	23
	Fy21	0	0	0	0	6	21

APPENDIX STANDARD 6: Students

Table C. Minority DVM students per year for last five years

Academic Year	DVM		
	Total # Students	*Minority	% Minority
2017 - 2018	361	24	6.6
2018 - 2019	371	28	7.5
2019 - 2020	373	34	9.1
2020 - 2021	382	35	9.1
2021 - 2022	400	38	9.4

* Minority = students from historically underrepresented racial and ethnic groups to include African-American/Black, Asian, Alaskan Native, American Indian, Hispanic, Native Hawaiian, Pacific Islander, and Multi-ethnic/racial. Foreign nationals should *not* be included in the minority category.

Table D. Other educational programs

Year	ACTIVITIES			
	Additional Clinical Year Students*	Veterinary Technician Program <i>Number Enrolled</i>	Undergraduate Programs <i>Number Enrolled</i>	Other <i>Number Enrolled</i>
2016 - 2017	1	47	0	0
2017 - 2018	4	51	0	0
2018 - 2019	9	59	0	0
2019 - 2020	8	63	0	0
2020 - 2021	5	68	0	0

*Represents students admitted for only the clinical year from other accredited and non-accredited schools.

APPENDIX STANDARD 6: Students

Active student organizations and student chapters:

1. Alpha Psi Fraternity
2. American Veterinary Medical Association
3. American Association of Bovine Practitioners
4. American Association of Equine Practitioners
5. American Association of Feline Practitioners
6. American Association of Veterinary Nutritionists
7. American Association of Veterinary Parasitologists
8. American College of Veterinary Internal Medicine
9. Animal Disaster Response Team
10. Association of Clinical Veterinary Pathologists
11. Association of Shelter Veterinarians
12. Christian Veterinary Fellowship
13. International Veterinary Student Association
14. Lab Animal Practitioners/Research Club
15. Surgery Club
16. Theriogenology Club
17. Veterinary Business Management Association
18. Veterinary Emergency and Critical Care Society
19. Veterinary Students as One in Culture and Ethnicity (VOICE)
20. Wildlife, Exotic, Zoo, Avian and Aquatic Medicine

Other student services and events provided by or overseen by the Office of Academic Affairs:

- Lunch-and-Learn programs focusing on wellness, career development, and social skills
- Oversight of the CVM scholarship program and notification of outside scholarships
- Orientation program for the incoming class
- Creation of “Meet the Class of _____” book for all incoming classes, and distribution to new students and faculty
- Assistance with housing and roommate selection
- Financial aid advising
- Class elections
- Selection of CVM Envoys and coordinating schedules and activities
- Coordination of the activities of Big Sib program
- Oversight of student representatives for veterinary and pet food companies
- Liaison to the University Office of Trademark and Licensing
- Scheduling and coordination of rabies vaccinations for the first-year class
- Oversight of the Student Code of Professional Conduct
- Coordination of student issues with the MSU Dean of Student Affairs Office
- Listening sessions/discussions with class officers on class issues and concerns
- Coating Ceremony for entering class
- Awards Ceremony for graduating class
- Commencement and post-commencement reception
- Coordination of the College’s participation in Diversity Matters

Activities related to recruiting and admissions provided by or overseen by the Office of Academic Affairs also include the following:

- Oversight of Early Entry Program
- Admissions counseling for prospective applicants
- Providing leadership and support to the college’s Admissions Committee
- Counseling and advising to applicants who were denied admission
- Tours of the CVM and advising prospective students
- Recruiting visits to high school and undergraduate programs
- Oversight of cooperative admissions programs with the Pontifical Catholic University of Puerto Rico and the University of Puerto Rico Mayaguez, and Tougaloo College (HBCU in Jackson, MS).



APPENDIX STANDARD 7

Admissions

APPENDIX STANDARD 7: Admissions

Courses that must be completed successfully before matriculation are:

Writing	6 semester hours
Speech	3 semester hours
Mathematics (minimum College Algebra)	6 semester hours
General Biology and laboratories	8 semester hours
Microbiology and laboratory	4 semester hours
General Chemistry and laboratories	8 semester hours
Organic Chemistry and laboratories	8 semester hours
Biochemistry	3 semester hours
Physics	6 semester hours
Advanced Science Electives	12 semester hours
Humanities, Fine Arts, Social Sciences	15 semester hours

Table A

YEAR	STATE RESIDENTS		NON RESIDENTS		CONTRACT STUDENTS		TOTAL	
	A/P*	O/A**	A/P	O/A	A/P	O/A	A/P	O/A
2017	67/27 (12 EEP/1 deferred)	27/27	709/43 (2 EEP)	143/41	82/12	26/12	858/82	196/80 (95) (14 EEP/1 deferred)
2018	80/22 (16 EEP/2 deferred)	23/22	737/40 (1 EEP/1 deferred/1 remediated)	150/40	85/12	24/12	902/74	197/76 (97) (17 EEP/3 deferred/1 remediated)
2019	105/28 (13 EEP/2 deferred)	28/28	993/38 (2 EEP/1 deferred/1 remediated)	119/38	108/12	21/12	1206/78	166/78 (96) (15 EEP/3 deferred/1 remediated)
2020	95/33 (16 EEP)	35/33	1028/32 (1 deferred)	112/32	117/15	30/15	1240/80	192/80 (97) (16 EEP/1 deferred)
2021	115/48 (9 EEP)	43/39	1005/49 (2 EEP/1 deferred)	168/50	118/11 (1 EEP)	20/12	1238/100	231/101 (114) (12 EEP/1 deferred)

*A/P = Applications/Positions Available

**O/A = Offers Made/Acceptances

Table A also includes applicants to the Early Entry Program (EEP). This program is for high-achieving high school seniors with a minimum ACT score of 27 and a minimum high school grade point of 90% or 3.6 on a 4.0 scale. Approximately 25-30 students are accepted into the Early Entry Program each year and begin undergraduate studies at Mississippi State University. They matriculate into the College following successful completion of all academic requirements and verified 480 hours of approved veterinary experience. Mississippi resident and non-resident students are eligible for the program.



APPENDIX STANDARD 8

Faculty

APPENDIX STANDARD 8: Faculty

Table A – Loss and recruitment of faculty (both tenure track & clinical track/equivalent) from the past five years.

Year	Department	Faculty Lost		Faculty Recruited	
		#	Discipline/Specialty	#	Discipline/Specialty
FY17	DCS	1	Small Animal Surgery	1	Anesthesiology
		2	Anesthesiology	1	Behavior Medicine
		1	Equine	1	Oncology
				1	Internal Medicine
				1	Anatomy
	PPM	1	Clinical Pathology	1	Food Animal Medicine
		1	Aquatic Animal Medicine		
		1	Anatomic Pathology		
	DCBS	1	Microbiology	1	Virology
		1	Virology	1	Parasitology
FY18	DCS	1	Small Animal Internal Medicine	1	Neurology
		1	Diagnostic Imaging	1	Shelter Medicine
				1	Emergency Medicine
	PPM	1	Epidemiology/Public Health	1	Marine Animal Health
		1	Anatomic Pathology		
		1	Preventive Medicine		
	DCBS	1	Neuroscience	2	Infectious Diseases
DCS	1	Shelter Medicine	1	Community Veterinary Services	
	1	Critical Care	1	Equine Surgery	
	1	Small Animal Surgery	1	Small Animal Surgery	

APPENDIX STANDARD 8: Faculty

FY19	PPM	1	Clinical Pathology	1	Clinical Pathology
		1	Poultry Medicine	1	Anatomic Pathology
		1	Theriogenology		
	DCBS	1	Toxicology		
FY20	DCS	1	Community Veterinary Services	1	Ophthalmology
		1	Small Animal Surgery	2	Community Veterinary Services
		1	Radiology	1	Small Animal Surgery
		1	Emergency Medicine	12*	Emergency Medicine*
		2	Equine Medicine	1	Shelter Medicine
	PPM	1	Food Animal Medicine	2	Food Animal Medicine
		1	Anatomic Pathology	1	Anatomic Pathology
				1	Theriogenology
				1	Anatomic Pathology
				1	Poultry Medicine
DCBS	1	Immunology			
	1	Microbiology			
FY21	DCS	1	Small Animal Surgeon	2	Small Animal Surgeon
				2	Emergency Medicine-AERC
				1	Community Veterinary Services
	PPM	2	Anatomic Pathologist	1	Equine Internist
				1	Anatomic Pathologist
				1	Microbiology
				1	Food Animal Medicine
DCBS			1	Aquatic Animal Medicine	
			1	Population Medicine	
	TOTAL		35		54

* The Animal Emergency and Referral Center (AERC) became officially part of CVM and the adjunct faculty became regular faculty members.

APPENDIX STANDARD 8: Faculty

Table B – Staff support for teaching and research.

AREA	FTE CLERICAL	FTE TECHNICAL	OTHER
CLINICAL TEACHING	28	101	-
NON-CLINICAL TEACHING	22	49	39.5
RESEARCH	7.5	47.5	-
TOTAL	57.5	197.5	39.5
Overall Total	294.5		

Table C –Non-Veterinarians

Title	MS	PhD	Board Certified	Board Certified & MS	Board Certified & PhD
Administrator	0	0	0	0	0
Professor*	0	6	0	0	2
Associate Professor*	0	5	0	0	1
Assistant Professor*	0	4	0	0	0
Instructor	0	0	0	0	0
Lecturer	0	0	0	0	0
Part-time Faculty (less than 75% time)	0	0	0	0	0

*Includes clinical track

Table D –Veterinarians

Title	DVM (only)	MS	PhD	Board Certified	Board Certified & MS	Board Certified & PhD
Administrator	1	1	0	1	2	2
Professor*	1	0	5	1	5	10
Associate Professor*	2	2	3	7	11	1
Assistant Professor*	11	3	2	8	7	0
Instructor	11	0	0	1	0	0
Lecturer	0	0	0	0	0	0
Part-time Faculty (less than 75% time)	7.7	0	0	0.5	0.65	0

*Includes clinical track



APPENDIX STANDARD 9

Curriculum

APPENDIX STANDARD 9: Curriculum

Professional Development IV: Learning Objectives

Dr. Lance Roasa, Drip Learning Technologies, LLC

Career Development for Veterinary Students

1. Develop goals and objectives for job search and career development.
2. Compare and contrast career opportunities within veterinary medicine.
3. Create a plan to identify desirable jobs and compare and contrast potential employment opportunities.
4. Describe desirable characteristics that employers are looking for such as,
 - a. Emotional intelligence, Loyalty, Stability, Communication skills.
5. Draft career development materials to highlight desirable characteristics.
6. Describe the typical hiring process in veterinary medicine.
7. Create a plan to transition from student to veterinarian.

Contract Law, Personal Taxation and Compensation for Veterinary Students

1. Understand the components of an employment contract and the effect on personal wellbeing and financial success.
2. Base or Production (including Pro-Sal)
3. Consider the components of the interest list that are relevant to an employment contract and identify legal components.
4. Understand veterinary specific contractual provisions such as restrictive covenants, termination, liquidated damages, exclusivity, and negative accrual.
5. Understand basic employment law concepts such as at-will employment, notice period, unpaid and paid leave, and fringe benefits.

The Art and Science of Negotiation

1. Identify attributes of professionalism in behavior, appearance, communication, and reputation that lead to the desired attributes of an employer.
2. Compare negotiation in high relationship intense settings versus low relationship intense settings.
3. Create a time and setting for a productive relationship building negotiation.
4. Understand the components of a successful relationship-based negotiation.
5. Draft the first three sentences of employment contract negotiation.

Medical Recordkeeping for Veterinarians

1. Understand the business and legal reasons to create medical records.
2. Describe the factors associated with admissibility into court.
3. Describe the documents that create the medical record.
4. Understand the importance of informed consent and its application in medical records.
5. Create medical records that provide a legal defense to malpractice cases.

Professional Ethics of the Veterinary Profession

1. Understand the components of moral ethical and legal decision-making including resources for decision making and creating a framework for tough decisions.
2. Learn how to navigate ethical communication with clients and other veterinary professionals.
3. Follow the progression of change from morals to ethics to laws.

APPENDIX STANDARD 9: Curriculum

Personal Financial Success and Student Debt for Veterinary Students

Personal Financial Success

1. Understand the importance of budgeting and saving.
2. Compare the different types of taxation- ordinary income tax, payroll tax and capital gains tax.
3. Compare and contrast different kinds of investment retirement accounts, for example, 401k series versus Roth IRA.
4. Learn the key policy points of different types of insurances such as life (term versus whole versus universal), disability, professional liability, and health.
5. Describe the benefits of a health savings account.
6. Create your important papers including the last will and testament, financial power of attorney, living will and advanced directive.

Student Debt

7. Understand the different loan repayment schedules.
 8. Learn about the finer points of income-driven repayment programs including debt forgiveness taxation and the stability of programs.
 9. Describe the inner workings of public student loan forgiveness.
 10. Compare the various state forgiveness programs.
1. **Professional Ethics**
 - a. Legal Moral Ethical Decision Making -
 - b. Ethical Communication with clients and other veterinary professionals
 - c. The Progression of Change, Morals to Ethics to Laws.
 2. **Veterinary Medicine and the Law**
 - a. State Veterinary Boards- who does the board serve
 - b. Standard of Care
 - c. Civil Lawsuits
 - d. Diagnosing and Preparing a Cruelty Case for Court
 3. **Animals and the Law**
 - a. Working up Cruelty Case
 - b. Colorado Case Example
 - c. Laws affecting the practice of veterinary medicine
 - d. Reporting cruelty, Dangerous dog laws
 - e. Large Scale changes to Veterinary Law



APPENDIX STANDARD 10

Research

APPENDIX STANDARD 10: Research

Table A

Fiscal Year	Total college DVM enrollment	*DVM students involved in research (SRE & VSRI)	Peer reviewed pubs with DVM student as author or co author	DVM/PhD students enrolled	DVM/MS/MPH students enrolled
2016-2017	345	22	8	10	0
2017-2018	361	17	12	12	0
2018-2019	371	15	14	11	0
2019-2020	373	20	22	13	1
2020-2021	381	13	22	9	1

*Includes students in the Summer Research Experience and Veterinary Student Research Initiative (CVM 5840)

Table B

	Year	Number faculty*	Total Faculty FTE	Faculty in Research ^{1**}	Total Research FTE	Research Faculty teaching in DVM curriculum**	No. unique peer reviewed pubs ²	No. book chapters including original findings
Department of Comparative Biomedical Sciences	FY2017	24	24	22	14.6	15	51	4
	FY2018	25	25	21	13.9	14	52	2
	FY2019	24	23.5	21	13.4	14	54	3
	FY2020	26	26	19	12.8	13	55	5
	FY2021	20	20	18	11.7	12	52	3
Department of Clinical Sciences	FY2017	46	40.85	12	4.6	11	35	1
	FY2018	51	45.35	11	3.5	9	41	4
	FY2019	52	48.95	11	3.9	10	51	65
	FY2020	62	55.05	9	3.3	9	34	8
	FY2021	65	53.55	11	3.9	11	34	14
Department of Pathobiology and Population Medicine	FY2017	58	48.6	15	5.6	11	41	3
	FY2018	55	54.7	14	5	13	56	1
	FY2019	51	43.4	12	4.3	11	33	1
	FY2020	52	43.8	10	3.9	11	53	5
	FY2021	50	47.2	14	6.9	10	49	2
TOTAL CVM	FY2017	128	113.45	49	24.9	37	127	8
	FY2018	131	125.05	46	22.3	36	149	7
	FY2019	127	115.85	44	21.5	35	138	69
	FY2020	140	124.85	38	19.9	33	142	18
	FY2021	135	120.75	43	22.5	33	135	19

*All faculty, including full- and part-time faculty. **Research faculty are defined as faculty with $\geq 20\%$ time devoted to research activity.

¹The number of individual faculty members within each department involved in research, total research FTE, and research productivity (tabulate below for each of the last three years). For example: Dept. A has 35 faculty members with 30 involved in research and 6 FTE assigned to research.

²Count of unique publications only – a publication containing multiple co-authors must be counted only once in this table.

APPENDIX STANDARD 10: Research

Table C

Department		Extramurally Sponsored Federal Grants		Extramurally Sponsored State Grants		Extramurally Sponsored Private Contracts		No. Patents
		Number	\$ Value*	Number	\$ Value*	Number	\$ Value*	
Department of Comparative Biomedical Sciences	FY2017	9	1,354,190	1	13,746	6	383,593	10
	FY2018	14	3,156,583	0	0	12	1,778,001	8
	FY2019	17	9,092,839	0	0	7	1,356,975	2
	FY2020	12	6,636,423	1	1,250,000	3	1,337,158	1
	FY2021	11	7,284,311	0	0	2	1,319,780	2
Department of Clinical Sciences	FY2017	0	0	0	0	2	312,688	1
	FY2018	1	42,243	0	0	7	797,462	0
	FY2019	1	5,000	0	0	7	81,236	1
	FY2020	0	0	0	0	2	22,184	0
	FY2021	0	0	0	0	1	25,017	0
Department of Pathobiology and Population Medicine	FY2017	2	150,626	0	0	5	227,568	3
	FY2018	3	197,068	0	0	1	61,171	0
	FY2019	5	1,704,299	0	0	3	93,144	0
	FY2020	7	494,034	0	0	0	0	0
	FY2021	9	941,358	0	0	4	79,434	0
TOTAL CVM	FY2017	11	1,504,816	1	13,746	13	924,849	14
	FY2018	18	3,395,894	0	0	20	2,636,634	8
	FY2019	23	10,802,138	0	0	17	1,531,355	3
	FY2020	19	7,130,457	1	1,250,000	5	1,359,342	1
	FY2021	20	8,225,569	0	0	7	1,424,231	2

*Only count grant, contract, or patent in the year it is awarded to faculty holding a primary (≥ 50%) appointment within the college.

APPENDIX STANDARD 10: Research

Table D. DVM Student Exposure to Research-Related Topics in the Curriculum

	Acquisition and evaluation of scientific literature	Experimental and non experimental research design	Critical analysis of data	Scientific Writing	Write research proposal	Submit manuscript for publication*	Hands on experience in bench, clinical, or field research	Interaction with graduate students	Acquire, evaluate, and use new knowledge
Years 1 and 2									
Epidemiology	X	X	X					X	X
Immunology	X	X	X					X	X
Infectious Agents	X	X	X						
Preventive Medicine	X	X	X					X	X
Professional Development	X		X					X	X
Years 3 and 4									
AERC	X								X
Anesthesia	X						X	X	X
CVS	X	X	X				X		X
CPC	X		X	X		X		X	X
Diagnostic Services	X			X				X	X
Equine Med and Surg	X						X	X	X
Field Services/Ambulatory	X								X
Food Animal	X	X	X				X		X
ICU	X								X
Internal Med (SA)	X						X	X	X
Radiology	X			X					X
Surgery	X	X					X	X	X
VSC- Neuro/Ophtho	X	X					X	X	X
Year 4 research elective course (CVM 5840-Veterinary Research)	X	X	X	X	+/-	+/-	X	X	X
Population Medicine	X	X	X				+/-	X	X
Summer Research Experience	X	X	X	X	X	X	X	X	X

*Since 2014, 7 students submitted their CPC manuscript to a veterinary journal. To date, three were published:

Ulrich MR, Fontenot RL, Bowser J. "Heritable Equine Regional Dermal Asthenia: A Review." *The Remuda* 2015. www.texasequineva.com, 16-24.

Morris SL, Nabors BE, Gambino JM, Fontenot RL. "What is Your Diagnosis? Solar Keratoma in a Horse". *JAVMA* 2017; 250: 841-844.

Griffin C, Mochal-King CA, Grissett GP, et.al. "Suprascapular Nerve Decompression for Treatment of Neuropathy in a Bucking Bull." *JAVMA* 2019; 255: 591-594.

APPENDIX STANDARD 10: Research

Table E: Mississippi State University College of Veterinary Medicine DVM/PhD graduates

Student	Mentor	Completion dates	Current position	Dissertation title
Lauren Bright	Swiderski	DVM 2014, PhD 2015 (started 2008)	Completed lab animal residency at University of Pennsylvania, now associate director for laboratory animal care at Rutgers University	Validating pasture heaves as an equine model of neutrophilic asthma: a systems biology approach.
Claire Fellman	Mackin/Archer	DVM 2011, PhD 2016 (started 2008)	DACVIM, DACVCP, assistant professor at Cummings School of Veterinary Medicine, Tufts University	Assessment of the pharmacodynamic effects of cyclosporine in dogs
Courtney Hunter	Swiderski	DVM 2017, PhD 2018 (started 2011)	Lab animal residency at University of Michigan, accepted Lab animal vet position at Vanderbilt	Funny channel signaling in equine airway disease
Caitlin Riggs	Mackin/Archer	DVM 2017, PhD 2017 (started 2011)	Private practice	Development of a pharmacodynamic assay to assess the effect of cyclosporine in the canine patient
Shauna Trichler	Bulla	DVM 2017, PhD 2017 (started 2011)	U.S. Army active duty	Platelet-cancer cell interactions [electronic book]: Insights from the canine model
Sherry Blackmon	Wan	DVM 2018, PhD 2019 (started 2012)	Supervisory Veterinary Medical Officer, USDA	Zoonotic risk of emerging influenza viruses from domestic animals
Amanda Cain	Hopper	DVM 2018, PhD 2016 (started 2012)	Private practice	Evaluation of the effects of heifer development method on subsequent reproductive performance and progeny growth
Jim Nichols	Kaplan	DVM 2016, PhD 2020 (started 2012)	MD Anderson Cancer Center (Houston), postdoc	Exploring the immunosuppressive properties of various agents in the experimental autoimmune encephalomyelitis models of multiple sclerosis
Jaime Rutter	Seo	DVM 2020, PhD 2021 (started 2013)	Post doc at MSU (funded by USDA ARS NBAF agreement)	Characterizing human receptor-mediated cytotoxicity by staphylococcal bi-component leucocidins in <i>S. aureus</i> pathogenesis
Brittany Szafran*	Kaplan/Ross	DVM 2017, PhD 2021 (started 2013)	Associate Service Fellow at CDC	The Role of the Endocannabinoid System in Immune Homeostasis with an Emphasis on the Immune Effects of Carboxylesterase Inhibition by Chlorpyrifos in Murine Lung Tissue
Matthew Scott	Woolums	DVM 2018, PhD 2021 (started 2014)	Assistant professor at West Texas A&M CVM	Utilization of bioinformatic and next generation sequencing approaches for the discovery of predictive markers and molecular pathways involved in bovine respiratory disease

*2021 Boehringer Ingelheim Graduate Veterinary Research Award; 2021 Outstanding Graduate Student Hall of Fame Award for the College of Veterinary Medicine



APPENDIX STANDARD 11

Outcomes Assessment

APPENDIX STANDARD 11: Outcomes Assessment

Learning Objectives for the Nine Clinical Competencies

- 1. Comprehensive patient diagnosis (problem-solving skills), appropriate use of diagnostic testing, and record management**
 - When confronted with a problem(s) in an individual animal or within a population of animals, the student will identify the problem(s).
 - A student will develop an appropriate diagnostic plan based upon the problems, differential diagnoses, and the economic limitations imposed by the owner.
 - A student will observe, identify, and interpret abnormalities in laboratory samples involving hematology, clinical chemistry, cytology, and urinalysis.
 - A student will maintain thorough, accurate, and legible (or electronic) medical records, e.g., problem-oriented medical records using the SOAP format that document the following:
 - a. patient or population progress;
 - b. new data including test results and medications administered; and
 - c. any changes in problems, diagnoses, therapeutic plans, or management plans.

- 2. Comprehensive treatment planning including patient referral when indicated**
 - A student will make treatment or management decisions based on diagnostic evaluation, patient factors, clinical knowledge, treatment availability, and owner input.
 - A student will recognize and respond appropriately to patient-care situations that require special responsibilities, skills, equipment, and goals.
 - A student will recognize personal limitations in technical and psychomotor skills, and when appropriate, refer patients to those with more refined skills or access to necessary equipment and other resources.

- 3. Anesthesia and pain management, patient welfare**
 - A student will recognize the similarities, as well as the unique differences, between species with regard to anesthetic management.
 - A student will recognize situations that require special support as in complex illnesses, chronic pain, permanent alterations or disabilities, euthanasia decisions, and clients with extreme attachment to their pet(s).
 - A student will understand animal anatomy and physiology and be able to design anesthetic plans for a variety of animal species with normal or altered physiological function.
 - a. Be able to maintain an anesthetic record, calculate drug dosages and volumes, IV fluid volumes and administration rates, and anesthetic gas flow rates
 - b. Be able to assemble and operate an inhalant anesthetic machine and other equipment necessary to provide safe anesthesia
 - c. Develop the technical skills to restrain animals, administer medications, monitor depth of anesthesia, place IV catheters and endotracheal tubes
 - d. Be able to troubleshoot and manage patient problems in the perioperative period

- 4. Basic surgery skills and case management**
 - A student will understand and demonstrate principles of aseptic surgical techniques.
 - A student will perform and demonstrate appropriate surgical skills, tissue handling, hemostasis and surgical approaches and closures.
 - A student will identify all anatomical structures associated with surgical procedures.
 - A student will be able to discuss and perform the following procedures:
 - calculate anesthetic drug dosages and anesthesia protocols
 - canine and feline spay
 - canine, feline, and equine castration
 - early-age canine and feline spay/neuter
 - ruminant dehorn and castration
 - skin laceration and repair

APPENDIX STANDARD 11: Outcomes Assessment

5. Basic medicine skills and case management

- A student will generate a list of differential diagnoses for each problem identified.
- A student will know the indications, contraindications, appropriate route of administration, frequency of administration and duration of administration for prescribed medications.

6. Emergency and intensive care case management

- A student will recognize subtle changes in patient conditions through careful monitoring of vital signs and mental status
- A student will have the opportunity to observe or perform the following procedures, either in a laboratory setting (Year-3 small animal critical care lab) or with AHC/AERC/VSC patients: IV catheter placement, endotracheal tube placement, chest tube placement, pass a stomach tube, thoracocentesis, proper ECG lead placement, intraosseous needle or catheter placement, internal and external cardiac massage with CPR, cerebrospinal fluid collection, epidural, urethral catheterization (male and female), gastric lavage, tracheostomy, and venous cutdown.

7. Understanding of health promotion, and biosecurity, prevention and control of disease including zoonoses and principles of food safety

- A student will learn appropriate emergency responses to natural disasters and intentional disasters, including disaster management in animal systems.
- A student will understand the importance of zoonosis based on principles of epidemiology and epizootology.
- A student will recognize situations which require immediate action when potential public health issues are encountered, such as: notification of appropriate federal or state authorities, quarantine or isolation of affected animals, and appropriate methods of necropsy or carcass disposal.

8. Ethical and professional conduct; communication skills including those that demonstrate an understanding and sensitivity to how clients' diversity and individual circumstance can impact health care

- A student will effectively use verbal and written communication to explain the following to clients:
 - a. the nature of the problem(s);
 - b. the cost, risks, efficacy and value of the diagnostic work-up;
 - c. the diagnostic hypotheses, working diagnosis, or established diagnosis;
 - d. the prognosis with and without therapy;
 - e. therapeutic options;
 - f. the cost, risk and potential value of each therapeutic intervention; and
 - g. client responsibilities in the management and monitoring of the situation.
- A student will understand the principles of making ethical medical decisions. When making these decisions, a student will consider the clients' personal circumstances and be aware of the impact those circumstances will have on the patient's health care.
- A student will be cognizant of the impact of clients' diversity when providing care for a patient.
- A student will conduct himself/herself in a professional manner in accordance with the "Principles of Veterinary Medical Ethics."
- Students will project a professional image in behavior, dress, grooming, speech, and interpersonal relationships consistent with accepted professional standards.

9. Critical analysis of new information and research findings relevant to veterinary medicine

- A student will become knowledgeable in evidence-based veterinary medicine.
- A student will be able to find appropriate resources (printed, electronic, human, training) and effectively resolve inadequacies.
- Whenever a student encounters a research report they will be able to do the following:
 - a. Explain why the study is observational or experimental.
 - b. Describe the major advantages and disadvantages of the study design.
 - c. Define the following descriptive statistics: mean, median, mode, range, variance, standard deviation.
 - d. Define the following statistical terms: critical value, confidence level, significance level, power, p-value, effect size, confidence interval.

APPENDIX STANDARD 11: Outcomes Assessment

Assessment of Clinical Competencies in Year- 1 and Year- 2 (Phase 1 of Curriculum)

Phase I Core Courses	Clinical Competencies Introduced (I) or Assessed (A)								
	#1	#2	#3	#4	#5	#6	#7	#8	#9
CVM 5013 Veterinary Neuroscience	A		I		A				I
CVM 5011 Professional Development I			I					I	I
CVM 5033 Immunology	I				I				I
CVM 5023 Infectious Agents I	I						A		
CVM 5036 Veterinary Physiology	A								A
CVM 5046 Veterinary Anatomy I	A			I	I				
CVM 5073 Veterinary Histology	I								I
CVM 5163 Veterinary Parasitology	A				A		A		I
CVM 5021 Professional Development II	I	I	I				A	A	
CVM 5022 Veterinary Epidemiology	A						A		I
CVM 5044 Intro to Veterinary Pathology	A				I		I		I
CVM 5072 Veterinary Anatomy II	A			A					
CVM 5223 Pharmacology I	A	A			A	A	I		
CVM 5193 Infectious Agents II	A						A		I
CVM 5213 Intro to Veterinary Anesthesiology	A	A	A		I	A			I
CVM 5123 Veterinary Clinical Pathology	I/A				A				A
CVM 5553 Pharmacology II	A	I	A		A	A	A		I
CVM 5153 Equine Medicine and Surgery I	A	I/A	A	I	A	I/A	A	I	
CVM 5123 Theriogenology	A	A		A	I	I/A	A	I	
CVM 5152 Veterinary Toxicology	A	I				A	A		
CVM 5186 Small Animal Medicine and Surgery I	A	A	A	A	A	A	A		I
CVM 5111 Professional Development III							A		
CVM 5133 Veterinary Preventive Medicine							A		A
CVM 5173 Equine Medicine and Surgery II	A	A		A	A	A	A		
CVM 5162 Diagnostic Imaging	A			I	A	A			I
CVM 5175 Food Animal Medicine and Surgery	A	A	A	A	A	A	A		
CVM 5183 Special Species	A	I	I	A	A	A	A		
CVM 5196 Small Animal Medicine and Surgery II	A	A		A	A	A	A		
CVM 5121 Professional Development IV								A	

APPENDIX STANDARD 11: Outcomes Assessment

Assessment of Clinical Competencies in Year-3 and Year-4 (Phase 2 of Curriculum). Number of individual assessments lined to each clinic competency across all required rotations.

Phase II Core Clinical Rotations	COE Clinical Competencies Assessed								
	#1	#2	#3	#4	#5	#6	#7	#8	#9
Anesthesiology	4	2	4		6			9	3
Laboratory Services	3			1				2	3
Diagnostic Imaging	6	2			7			20	3
Community Veterinary Services	6	2			7			20	1
Small Animal Surgery	5	2		1	4			12	
Equine Medicine and Surgery	2			1	1	2	2	4	1
Food Animal/ Theriogenology	4			1	5	2		6	
Population Medicine	1	1			1		1	2	1
Internal Medicine	2	3			3			8	1
Emergency/ ICU	1	1			1	1	7	2	
Clinical Pathologic Conference (Sr. Seminar)								1	1
Ambulatory	1	1		1	3			7	1
Veterinary Specialty Center	1	1			5			2	1
Externships (not required)	9	2	3	3	5	1	1	14	1
Totals	45	17	7	9	44	6	11	109	15

Scoring Rubric for Clinical Rotations

10 Point Numerical Score	Rating	Descriptive Narrative
10	Outstanding	The student consistently performs at or demonstrates a level of knowledge, problem-solving skills, abilities, and/or behaviors that routinely exceeds the level of most students ready to enter small animal clinical practice.
9	Very Good	The student consistently performs at or demonstrates a level of knowledge, problem-solving skills, abilities, and/or behaviors of most students ready to enter practice. The student occasionally exceeds expectations.
8	Good	The student meets basic expectations and generally performs at or demonstrates a level of knowledge, problem-solving skills, abilities, and/or behaviors of most students ready to enter small animal clinical practice.
7	Meets Expectations	The student meets minimal expectations and generally performs at or demonstrates a level of knowledge, problem-solving skills, abilities, and/or behaviors of most students ready to enter small animal clinical practice. This area needs continued refinement.
6	Needs Improvement	The student inconsistently meets minimal expectations and only occasionally performs at or demonstrates a level of knowledge, problem-solving skills, abilities, and/or behaviors of most students ready to enter small animal clinical practice. This area needs consistent improvement.
<6	Unacceptable	The student fails to meet minimal expectations and does not perform at or demonstrate a level of knowledge, problem-solving skills, abilities, and/or behaviors of most students ready to enter small animal clinical practice. This area requires significant improvement.

APPENDIX STANDARD 11: Outcomes Assessment

Threshold Events and Performances in Clinical Rotations

Core Clinical Rotations	# Threshold Events	Brief Description of Threshold Event(s)/Performance
Anesthesia	2	<ol style="list-style-type: none"> 1) Each student must demonstrate the ability to safely and competently plan and carry out an anesthetic procedure on a clinical patient without direct faculty/staff assistance (mini-CEX). 2) Written examination $\geq 60\%$
Laboratory Services	11	<ol style="list-style-type: none"> 1) Necropsy reports $\geq 65\%$ 2) Written anatomic pathology examination $\geq 65\%$ 3) Necropsy case log $\geq 65\%$ 4) Written clinical pathology examination $\geq 65\%$ 5) Pathology knowledge base $\geq 65\%$ 6) Necropsy technique (DOPS) $\geq 65\%$ 7) Case responsibility/work ethic $\geq 65\%$ 8) Scientific curiosity $\geq 65\%$ 9) Participation $\geq 65\%$ 10) Professionalism $\geq 65\%$ 11) Friday case presentation $\geq 65\%$
Diagnostic Imaging	1	<ol style="list-style-type: none"> 1) Written examination on evaluation and interpretation of 40 radiographic cases (NAVLE format $\geq 60\%$) and completion of "safety and techniques" quiz
Community Veterinary Services	8	<ol style="list-style-type: none"> 1) Overall initiative $\geq 65\%$ 2) Patient Care/Treatment $\geq 65\%$ 3) Attendance/Punctuality $\geq 65\%$ 4) Projects a professional image in behavior $\geq 65\%$ 5) Attitude $\geq 65\%$ 6) Working knowledge $\geq 65\%$ 7) Written examination on principles of small animal primary care $\geq 65\%$ 8) Passing of the clinical competency assessment (mini-CEX)
Small Animal Surgery	2	<ol style="list-style-type: none"> 1) Management of cases/dependability $\geq 60\%$ 2) Written examination $\geq 60\%$
Equine Medicine and Surgery	9	<ol style="list-style-type: none"> 1) Written and practical techniques examination (OSCE) $\geq 60\%$ (combined) 2) Basic and applied knowledge $\geq 60\%$ 3) Analytical (problem-solving) skills $\geq 60\%$ 4) Technical skills $\geq 60\%$ 5) Health promotion, disease prevention, biosecurity, zoonosis $\geq 60\%$ 6) Care and treatment of emergency and critical care patients $\geq 60\%$ 7) Strong appreciation of research in veterinary medicine $\geq 60\%$ 8) Communication skills $\geq 60\%$ 9) Professional values, behaviors, and ethics $\geq 60\%$

APPENDIX STANDARD 11: Outcomes Assessment

Food Animal/ Theriogenology	4	<ol style="list-style-type: none"> 1) Written examination on clinical case material from hospitalized patients seen during the rotation $\geq 60\%$ 2) Practical techniques examination (OSCE) $\geq 60\%$ 3) Student rounds presentations $\geq 60\%$ 4) Faculty/ house officer evaluation $\geq 60\%$
Population Medicine	6	<ol style="list-style-type: none"> 1) Working knowledge $\geq 50\%$ 2) Professional values, behaviors, and ethics $\geq 50\%$ 3) Practical understanding of disease control and prevention $\geq 50\%$ 4) Basic understanding of spreadsheet functions $\geq 50\%$ 5) Completion of USDA Accreditation training 6) Written examination
Internal Medicine	7	<ol style="list-style-type: none"> 1) Patient care $\geq 60\%$ 2) Technical skills $\geq 60\%$ 3) Clinical skills assessment- History, PE, and Plan (DOPS) $\geq 60\%$ 4) Clinical skills assessment- Bloodwork assessment (DOPS) $\geq 60\%$ 5) Written examination $\geq 60\%$
Emergency/ ICU	10	<ol style="list-style-type: none"> 1) Professional conduct (values, behavior, ethics) $\geq 60\%$ 2) Basic and applied knowledge base (pre-clinical, self-education, record keeping) $\geq 60\%$ 3) Technical skills $\geq 60\%$ 4) Emergency and critical patient care $\geq 60\%$ 5) Communication skills (interpretive, written, and verbal) $\geq 60\%$ 6) Knowledge of zoonotic diseases $\geq 60\%$ 7) Completion of procedures related to emergency and critical care 8) Three case summaries from patients seen on the rotation 9) ER patient case log 10) Written examination $\geq 75\%$
Ambulatory	8	<ol style="list-style-type: none"> 1) Written pre-rotation examination 2) Written final examination 3) In depth mock herd and individual animal investigation cases 4) Written case log of patients seen and procedures performed on the rotation 5) Medical knowledge 6) Clinical skills 7) Communication skills 8) Professional behavior
Veterinary Specialty Center	6	<ol style="list-style-type: none"> 1) Assessment of a journal article on an assigned topic based on a case seen on the rotation 2) Practical neurologic techniques assessment (DOPS) 3) MRI safety quiz and associated paperwork 4) Ophthalmology topic presentation 5) Practical ophthalmology techniques assessment (DOPS) 6) Written final examination
Animal Emergency and Referral Center (AERC)	1	<ol style="list-style-type: none"> 1) Practical patient assessment (mini-CEX)

APPENDIX STANDARD 11: Outcomes Assessment

Student Evaluations by Externship Mentor

- 1 = Needs significant improvement
- 2 = Performance below expectations
- 3 = Expected performance
- 4 = Performance exceeded expectations
- 5 = Excellent performance

N/A = Not applicable or could not be evaluated

2018

2017

	(SUMS)	% Expected performance or better	% Performance exceeded expectations or better	(SUMS)	% Expected performance or better	% Performance exceeded expectations or better
1. Student demonstrated adequate knowledge of medical principles and disease.	137	100.00%	86.86%	283	99.29%	80.71%
2. Student demonstrated adequate knowledge of surgical principles and techniques.	137	99.12%	84.96%	283	98.79%	80.65%
3. Student demonstrated adequate psychomotor skills.	135	99.21%	87.40%	282	98.48%	85.61%
4. Surgical skills.	139	98.90%	84.62%	282	98.15%	78.70%
5. Procedural skills.	138	99.21%	81.75%	283	100.00%	82.95%
6. Animal handling skills.	137	97.74%	86.47%	283	100.00%	84.93%
7. Student demonstrated adequate analytical/diagnostic skills.	137	99.27%	86.13%	283	98.92%	81.72%
8. Physical examination skills.	137	99.25%	81.95%	283	99.63%	82.46%
9. History taking skills.	137	99.09%	78.18%	283	99.60%	79.92%
10. Radiographic interpretations skills.	138	100.00%	74.31%	283	99.59%	71.54%
11. Laboratory interpretation skills.	137	100.00%	82.03%	282	99.61%	76.17%
12. Problem solving skills.	136	99.26%	82.35%	283	99.28%	79.78%
13. Self-education skills.	137	99.26%	87.41%	282	99.26%	84.56%
14. Student could independently identify resources and find answers to problems.	137	98.50%	88.72%	281	99.26%	86.40%
15. Student could accurately assess personal strengths and weaknesses.	137	99.19%	82.11%	282	99.62%	81.54%
16. Student was interested in learning.	137	100.00%	94.16%	282	99.65%	91.84%
17. Student was interested in working.	137	100.00%	92.70%	282	98.58%	90.43%
18. Student got along well with veterinarians in the practice/institution.	137	100.00%	94.12%	282	99.29%	93.24%
19. Student got along well with technical staff in the practice/institution.	137	100.00%	94.89%	282	98.92%	92.83%
20. Student communicated well with others.	137	99.27%	89.78%	280	98.21%	87.86%
21. Student demonstrated initiative.	137	97.81%	91.97%	281	97.51%	88.26%
22. Student provided adequate patient care.	137	99.16%	88.24%	281	99.62%	91.57%
23. Student was always prompt.	137	100.00%	92.70%	282	99.23%	90.78%
24. Student was enthusiastic.	137	99.27%	92.70%	281	98.22%	90.04%
25. Student acted in a professional manner at all times.	137	100.00%	94.16%	281	100.00%	93.24%
Totals	3428	99.35%	87.52%	7052	99.15%	85.33%

APPENDIX STANDARD 11: Outcomes Assessment

Student Evaluations by Externship Mentor

- 1 = Needs significant improvement: not passing
 - 2 = Performance below expectations: acceptable but needs improvement, developing entry level competency
 - 3 = Expected performance: consistently satisfactorily, entry level competency
 - 4 = Performance exceeded expectations: consistently good performance
 - 5 = Excellent/superior performance: consistently excellent and above average
- N/A = Not applicable or unable to assess

2019

2020

Formative Evaluation	(SUMS)	(entry level) or better	% Expected performance	% Performance exceeded expectations or better
1. Professional conduct	254	100.00%		97.64%
2. Communication skills	254	100.00%		92.83%
3. General knowledge base	254	99.21%		90.55%
4. Application of knowledge	254	100.00%		90.08%
5. Technical skills	254	99.57%		89.27%
6. Problem solving skills	254	100.00%		91.50%

(SUMS)	(entry level) or better	% Expected performance	% Performance exceeded expectations or better
255	100.00%		96.08%
255	99.61%		92.55%
255	99.61%		89.02%
255	100.00%		91.34%
255	100.00%		84.65%
255	99.60%		90.36%

% Expected performance (entry level) or better

% Performance exceeded expectations or better

% Expected performance (entry level) or better

% Performance exceeded expectations or better

Summative Evaluation	(SUMS)	(entry level) or better	% Expected performance	% Performance exceeded expectations or better
1. Overall performance while under your supervision	255	99.61%		95.69%
2. Professional dress and appearance	254	99.60%		96.43%
3. Respectful interaction with clinicians/staff/peers	254	99.21%		97.23%
4. Punctual and engaged in activities	254	99.61%		96.06%
5. Willingness to learn/acquire new knowledge	254	99.60%		96.83%
6. Effective communication with clients	254	98.98%		93.37%
7. Effective communication with others on the medical team	254	99.19%		96.76%
8. Written communications	254	99.42%		93.02%
9. Verbal communications	254	99.20%		95.18%
10. Teamwork skills	254	99.60%		95.97%
11. Engaged and actively interested in cases/tests at hand	254	99.60%		96.03%
12. Accepting of instruction and constructive feedback	254	99.60%		97.18%
13. Gets along well with others	254	99.60%		97.21%
14. Able to recall knowledge and apply information to clinical cases	254	99.61%		90.55%
15. Knowledge of surgical principles and techniques	254	98.54%		91.71%
16. Knowledge of medical principles and disease	254	100.00%		89.60%
17. Understands when referral may be appropriate	254	99.51%		94.12%
18. Ability to independently identify resources and find answers to problems	253	99.18%		91.80%
19. History taking skills	254	98.37%		88.04%
20. Animal handling skills	254	99.13%		92.64%
21. Physical examinations	254	99.57%		90.17%
22. Identification of patient's primary problem	254	98.72%		89.74%
23. Identification of appropriate diagnostic test(s)	254	99.57%		89.74%
24. Laboratory interpretation skills	254	99.11%		86.22%
25. Radiographic interpretation skills	254	99.53%		85.85%
26. Problem solving skills	254	100.00%		90.98%
27. Entry level clinical/procedural skills	254	99.11%		90.18%
28. Entry level surgical skills (castration, OVH, wound repair)	254	97.13%		90.80%
29. Planning and provision of appropriate anesthesia and pain management	254	99.47%		90.43%
30. Identification of emergent issues with patients and triage of their importance	254	99.49%		89.90%
31. Provision of patient care	254	99.55%		93.21%
32. Comprehensive knowledge of disease prevention, control, and biosecurity	254	99.55%		91.86%
Totals	9652	99.39%		92.54%

(SUMS)	(entry level) or better	% Expected performance	% Performance exceeded expectations or better
255	100.00%		95.69%
255	99.61%		96.47%
255	100.00%		98.04%
255	99.61%		96.46%
255	100.00%		96.85%
255	99.56%		94.69%
255	99.60%		95.24%
255	99.49%		95.90%
255	99.21%		94.86%
255	99.61%		96.46%
255	100.00%		96.08%
255	100.00%		97.20%
255	100.00%		98.43%
255	99.19%		91.94%
254	100.00%		90.79%
255	99.20%		90.84%
255	100.00%		93.12%
255	99.59%		93.00%
255	99.53%		93.49%
254	99.59%		92.12%
255	100.00%		91.74%
255	99.59%		90.61%
255	98.77%		90.57%
255	99.15%		88.98%
255	99.14%		87.50%
256	99.20%		91.97%
253	100.00%		92.34%
254	100.00%		90.24%
256	100.00%		89.91%
255	100.00%		90.74%
255	100.00%		92.24%
255	99.57%		92.64%
9687	99.68%		92.92%

APPENDIX STANDARD 11: Outcomes Assessment

Senior Exit Survey Results

(5 Point Likert Scale: 1 Strongly Agree, 2 Agree, 3 Neither Agree nor Disagree, 4 Disagree, 5 Strongly Disagree)	2017 n=79	2018 n=79	2019 n=90	2020 n=89	2021 n=91
Overall, I am satisfied with my veterinary medical education.	1.67	1.65	1.78	1.83	1.64
I am satisfied with the clinical skills I have learned.	1.67	1.57	1.74	1.68	1.67
The College faculty/staff are concerned with providing a quality/excellent education.	2.11	1.96	2.09	1.89	1.89
As a student, I had adequate access to faculty/administration concerning my education.	1.96	1.71	1.88	1.79	1.87
The Phase 1 courses adequately prepared me to enter clinics and be successful.	2.15	2.16	2.16	2.04	2.15
My veterinary education has provided me broad biomedical training applicable to many disciplines.	2.01	1.94	2.14	1.86	1.88
My veterinary education provided me with adequate access to primary care cases.	1.82	1.76	1.89	1.82	2.08
I had adequate access to hands-on experiences with live animals.	1.57	1.52	1.66	1.58	1.58
The workload of the veterinary curriculum was appropriate for the education.	2.15	2.30	2.19	2.26	2.58
There were adequate opportunities to provide feedback/suggestions for improvement in the student experience/curriculum.	2.62	2.48	2.50	2.32	2.51
I was provided adequate information about career opportunities available.	2.05	1.72	1.84	1.89	1.69
My veterinary education provided me with a good knowledge of the financial considerations of my education and veterinary practice.	2.52	2.23	2.28	2.25	2.11
My veterinary education provided me with adequate problem-solving skills.	1.86	1.63	1.81	1.79	1.71
My veterinary education provided me with adequate diagnostic skills.	1.84	1.80	1.86	1.95	1.72
My veterinary education provided me with adequate anesthesia and pain management skills.	1.65	1.54	1.68	1.79	1.80
My veterinary education provided me with adequate surgery skills.	2.03	1.92	2.23	2.25	2.16
My veterinary education provided me with adequate medical skills/case management.	1.94	1.73	1.86	1.79	1.78
My veterinary education provided me with adequate knowledge of emergency/critical care case management.	2.10	2.27	2.37	2.66	2.20
My veterinary education provided me with adequate knowledge of patient referral decisions/options.	2.13	1.78	1.96	1.89	1.96
My veterinary education provided me with adequate knowledge of disease prevention/health promotion.	2.10	1.78	1.83	1.92	1.80
My veterinary education provided me with adequate knowledge regarding zoonosis/food safety.	2.08	1.94	2.00	2.01	2.09
My veterinary education provided me with adequate knowledge for patient welfare.	1.82	1.59	1.83	1.78	1.71
I was provided a strong appreciation for the importance of research in the provision of veterinary care.	2.19	1.95	2.24	2.10	1.92
I was provided with a good working knowledge of ethical conduct and professionalism.	2.31	1.72	1.98	1.74	1.76
My veterinary education provided me adequate opportunities to improve my communications (both verbal and written).	1.77	1.53	1.69	1.63	1.67
The process for selecting electives was efficient/well structured.	2.23	2.16	2.48	2.61	2.14
Overall, my clinical rotations prepared me well for a career in a clinical discipline.	1.81	1.72	1.90	1.84	1.90
Overall, my veterinary education provided me with a good working knowledge of comprehensive patient diagnosis and demonstration of problem-solving skills.	1.81	1.62	1.79	1.75	1.73
The veterinary curriculum provided adequate preparation for success on the NAVLE.	1.81	1.62	1.66	1.83	1.74
The overall quality of my interactions with the college administrative and support services was satisfactory.	2.39	2.22	2.38	1.99	2.36
I would recommend Mississippi State CVM to a friend or relative considering veterinary school.	1.74	1.71	2.01	1.92	1.88
Overall evaluation of my education experience at Mississippi State CVM was... 1) excellent 2) very good 3) good 4) fair 5) poor.	2.01	1.99	2.17	2.12	2.19

APPENDIX STANDARD 11: Outcomes Assessment

Graduating Seniors Self-Assessment of AAVMC's Entrustable Professional Activities (EPAs)

Students use a 5 pt. Likert scale (strongly agree to strongly disagree) to reflect their agreement with each of the following statements:	c/o 2021 n=92		c/o 2020 n= 89		c/o 2019 n=90		c/o 2018 n=78	
	SA+A	D+SD	SA+A	D+SD	SA+A	D+SD	SA+A	D+SD
EPA 1: With limited/no supervision, I feel competent in my ability to gather a history, perform an examination, and create a prioritized diagnosis list when presented with a routine veterinary patient.	98%	0%	97%	1%	98%	0%	100%	0%
EPA 2: With limited/no supervision, I feel competent in my ability to develop a diagnostic plan and interpret results when presented with a routine patient.	96%	0%	93%	1%	92%	2	94%	0%
EPA 3: With limited/no supervision, I feel competent in my ability to develop and implement a management/treatment plan for a routine patient.	92%	1%	88%	1%	86%	1%	96%	0%
EPA 4: With limited/no supervision, I feel competent in my ability to recognize a patient requiring urgent care and initiate proper evaluation and management.	87%	2%	89%	6%	86%	3%	91%	3%
EPA 5: With limited/no supervision, I feel competent in my ability to formulate relevant questions and retrieve evidence/information to advance care.	95%	0%	97%	0%	94%	0%	97%	0%
EPA 6: With limited/no supervision, I feel competent in my ability to perform a common surgical procedure (OVH, castration) on a stable patient, including pre- and post-operative management.	97%	0%	93%	1%	96%	1%	96%	0%
EPA 7: With limited/no supervision, I feel competent in my ability to perform general anesthesia and recovery of a stable patient including monitoring and support.	95%	0%	92%	2%	92%	0%	95%	1%
EPA 8: With limited/no supervision, I feel competent in my ability to formulate recommendations for preventive healthcare for both an individual and a herd/population of animals.	80%	4%	84%	2%	90%	2%	82%	1%

Employer's Assessment of AAVMC's Entrustable Professional Activities (EPAs)

(Rate performance 0-100; Score reported reflects the mean)	c/o 2020 n=35	c/o 2019 n=18	c/o 2018 n= 19	c/o 2017 n=13	c/o 2016 n=11
EPA 1: With limited supervision, the employee is able to competently gather a history, perform an examination, and create a prioritized diagnosis list when presented with a routine veterinary patient.	86	87	95	89	94
EPA 2: With limited supervision, the employee is competent in their ability to develop a diagnostic plan and interpret results when presented with a routine patient.	86	85	95	88	94
EPA 3: With limited supervision, the employee is competent in their ability to develop and implement a management/treatment plan for a routine patient.	86	87	95	87	95
EPA 4: With limited supervision, the employee is competent in their ability to recognize a patient requiring urgent care and initiate proper evaluation and management.	90	87	96	90	94
EPA 5: With limited supervision, the employee is competent in their ability to formulate relevant questions and retrieve evidence/information to advance care.	85	87	93	88	95
EPA 6: With limited supervision, the employee is competent in their ability to perform a common surgical procedure (OVH, castration) on a stable patient, including pre- and post-operative management.	86	86	91	87	88
EPA 7: With limited supervision, the employee is competent in their ability to perform general anesthesia and recovery of a stable patient including monitoring and support.	88	83	93	87	94
EPA 8: With limited supervision, the employee is competent in their ability to formulate recommendations for preventive healthcare for both an individual and a herd/population of animals.	89	82	91	86	92

APPENDIX STANDARD 11: Outcomes Assessment

Entrustable Professional Activities (EPAs) with corresponding COE clinical competencies

	COE#1	COE#2	COE#3	COE#4	COE#5	COE#6	COE#7	COE#8	COE#9
CBVE EPA #1	X	X	X	X	X	X		X	
CBVE EPA #2	X							X	X
CBVE EPA #3	X	X	X	X	X	X	X	X	X
CBVE EPA #4	X	X	X	X	X	X		X	
CBVE EPA #5	X							X	X
CBVE EPA #6	X	X	X	X	X	X			
CBVE EPA #7	X	X	X	X	X	X		X	
CBVE EPA #8	X	X	X	X	X	X	X	X	X
sums	8	6	6	6	6	6	2	7	4

APPENDIX STANDARD 11: Outcomes Assessment

Alumni Survey Information

Alumni Survey Data (5 pt. Likert Scale: Strongly Agree to Strongly Disagree)	2016 N=31 A/SA	2017 N=33 A/SA	2018 N=31 A/SA	2019 N=50 A/SA	2020 N=64 A/SA
Overall, I am satisfied with the veterinary education I received. (Rate 0-100)	92	88	91	87	85
I am satisfied with the clinical skills I acquired in veterinary school.	97%	100%	100%	96%	95%
The College's faculty/staff were concerned with providing a quality education.	100%	97%	94%	92%	88%
Phase 1 courses adequately prepared me to enter clinics & be successful.	97%	91%	90%	86%	84%
The veterinary education provided me with broad biomedical training which has been applicable to many disciplines.	94%	91%	84%	78%	83%
The veterinary education provided me with adequate access to primary care cases.	94%	84%	90%	88%	77%
My veterinary education provided me with adequate hands-on experiences with live animals.	97%	100	100%	100%	94%
The workload of the curriculum was appropriate for the education.	94%	94%	87%	82%	78%
I was provided adequate information about various career opportunities.	94%	81%	94%	90%	89%
My veterinary education provided me a good knowledge of financial considerations of my education and practice.	68%	63%	74%	74%	67%
My veterinary education provided me with adequate problem-solving skills.	97%	88%	97%	96%	94%
My veterinary education provided me with adequate diagnostic skills.	100	94%	97%	90%	89%
My veterinary education provided me with adequate anesthesia and pain management skills.	100	97%	100%	86%	91%
My veterinary education provided me with adequate surgery skills.	90%	91%	94%	82%	80%
My veterinary education provided me with adequate medical/case management skills.	97%	97%	94%	90%	83%
My veterinary education provided me with adequate knowledge of emergency/critical care case management.	94%	81%	81%	82%	56%
My veterinary education provided me with adequate knowledge of patient referral decisions/options.	87%	97%	94%	92%	86%
My veterinary education provided me with adequate knowledge of disease prevention/health promotion.	94%	88%	100%	88%	92%
My veterinary education provided me with adequate knowledge regarding zoonosis/food safety.	97%	84%	84%	84%	81%
My veterinary education provided me with adequate knowledge regarding patient welfare.	97%	100%	97%	90%	89%
My veterinary education provided me with a strong appreciation for the importance of research in the provision of veterinary care.	90%	97%	84%	88%	84%
My veterinary education provided me with a good working knowledge of ethical conduct and professionalism.	97%	94%	94%	92%	95%
My veterinary education provided me adequate opportunities to improve my communication skills (verbal & written).	90%	97%	87%	82%	86%
Overall, my clinical rotations prepared me well for a career in clinical practice.	97%	100%	97%	88%	81%
Overall, my veterinary education provided me with a good working knowledge of comprehensive patient diagnosis and demonstration of problem-solving skills.	100%	100%	94%	92%	88%
The veterinary curriculum provided me adequate preparation for success on the NAVLE.	97%	97%	94%	100%	88%
The overall quality of my interactions with the college administrative and support services was satisfactory.	94%	88%	87%	88%	81%
I would recommend Miss. State CVM to a friend or family member who is considering attending veterinary school.	100%	100%	94%	88%	88%
My overall evaluation of my education at Miss. State CVM would best be described as: Excellent or Very good.	100%	91%	90%	80%	70%

APPENDIX STANDARD 11: Outcomes Assessment

Employer Survey Information

S=Superior, EX=Exceeded expectations, EXP=Expected performance, B=Below expectations, NSI=Needs significant imp.	c/o 2016 n=11		c/o 2017 n=13		c/o 2018 n=19		c/o 2019 n=18		c/o 2020 n=35	
	% Exp or better	% B+NSI	% Exp or better	% B+NSI	% Exp or better	% B+NSI	% Exp or better	% B+NSI	% Exp or better	% B+NSI
	Overall assessment of knowledge/performance of employee	100	0	100	0	100	0	94	6	94
Employee demonstrates adequate knowledge of medical principles and diseases	100	0	100	0	95	5	94	6	94	6
Employee demonstrates adequate knowledge of surgical principles and techniques	100	0	100	0	95	5	83	17	89	11
Employee demonstrates adequate history taking skills	100	0	100	0	100	0	94	6	100	0
Employee demonstrates adequate animal handling skills	100	0	100	0	100	0	100	0	97	3
Employee demonstrates adequate physical examination skills	100	0	100	0	100	0	94	6	97	3
Employee demonstrates adequate ability to select appropriate laboratory tests	100	0	100	0	95	5	94	6	100	0
Employee has ability to accurately interpret clinical pathology findings	100	0	100	0	95	5	89	11	94	6
Employee has ability to accurately interpret radiographs	100	0	92	8	100	0	80	20	89	11
Employee's overall surgical skills	100	0	93	7	100	0	89	11	89	11
Employee's performance of routine surgical procedures	100	0	100	0	100	0	89	11	86	14
Employee's performance of more complex surgical procedures	80	20	100	0	95	5	66	33	74	26
Employee's performance of general anesthesia and pain management	100	0	100	0	100	0	94	6	94	6
Employee's ability to perform a sufficient necropsy	100	0	100	0	100	0	100	0	100	0
Employee's ability to triage and manage emergency cases	100	0	100	0	95	5	94	6	91	9
Employee's veterinary dentistry knowledge and skills	100	0	100	0	100	0	86	14	86	14
Employee's ability to answer common client questions about animal care	100	0	100	0	100	0	94	6	97	3
Employee's ability to properly document patient treatment in medical record	100	0	100	0	100	0	94	6	89	11
Employee's ability to collect routine specimens	100	0	100	0	100	0	100	0	97	3
Employee's ability to properly apply splints and bandages	100	0	100	0	100	0	100	0	89	11
Employee's knowledge and demonstration of professional ethics	91	9	100	0	100	0	89	11	100	0
Employee's overall problem-solving skills	100	0	100	0	100	0	94	6	91	9
Employee's ability to use a systematic approach to solving problems	100	0	100	0	100	0	94	6	94	6
Employee's ability to accurately develop a list of differential diagnoses	100	0	100	0	95	5	100	0	97	3
Employee's ability to make independent decisions	100	0	93	7	100	0	83	17	94	6
Employee's ability to consult others and solve difficult problems	100	0	100	0	100	0	94	6	94	6
Employee's ability to assess when to refer a case	100	0	92	8	100	0	100	0	94	6
Employee's self-motivation for learning	91	9	100	0	100	0	89	11	97	3
Employee's ability to critically examine new information	100	0	100	0	100	0	89	11	94	6
Employee's ability to identify resources and find answers to problems	100	0	100	0	100	0	88	12	97	3
Employee's overall communication skills	100	0	100	0	100	0	89	11	97	3
Employee's written communication skills	100	0	100	0	100	0	94	6	91	9
Employee's verbal communication skills	100	0	100	0	100	0	94	6	97	3
Employee's first impression with clients	100	0	100	0	100	0	94	6	97	3
Employee's ability to empathize with clients	100	0	100	0	100	0	94	6	94	6
Employee's overall business knowledge rating	100	0	92	8	95	5	60	40	89	11
Employee's time management skills	91	9	100	0	100	0	67	33	83	17
Employee's ability to work as part of a team	91	9	100	0	100	0	78	22	91	9
Employee's interactions with colleagues and staff	91	9	100	0	100	0	83	17	94	6
Employee's leadership skills	91	9	100	0	100	0	83	17	85	15
Employee's ability to cope with difficult clients	100	0	100	0	100	0	82	18	94	6

APPENDIX STANDARD 11: Outcomes Assessment

Percentage of NAVLE items correct within specific content categories:

	2021	2021	2020	2020	2019	2019	2018	2018	2017	2017	2016	2016
	ALL	Ms State	ALL	MS State	ALL	MS State	ALL	MS State	ALL	MS State	ALL	MS State
First Takes Only (% Pass)	87	98	88	90	88	97	89	94	88	89	90	96
Mean Score	498	518	498	504	503	534	505	526	505	506	509	524
			Cai									
Ultimate Performance (% Pass)	92	99	95	97	94	99	95	96	95	99	95	99
Mean Score	501	518	503	508	507	535	509	527	509	516	513	526
Total Test (% items correct)	70	72	70	71	69	73	69	72	69	70	71	73
Small Animal	71	74	71	72	71	74	71	73	71	71	72	74
Canine	72	74	72	73	72	75	72	75	71	71	73	75
Feline	72	75	72	73	72	76	71	75	71	73	73	76
Food Animal	67	70	67	68	67	73	68	71	68	68	68	72
Bovine	68	73	68	69	68	74	69	74	68	71	68	73
Porcine	67	66	67	68	65	68	66	65	66	62	68	69
Equine	69	71	69	70	70	74	70	71	70	71	71	73
Data gathering/interpretation							70	72	70	69	71	72
Health Maint/Prob Mgmt							68	72	69	70	70	72
Cardiovascular	70	72	71	70	71	72	72	73	72	71	74	75
Endocrine	76	78	77	77	74	79	72	72	70	72	75	75
Gastrointestinal	69	72	69	73	69	73	69	71	69	68	69	71
Hemic & Lymphatic	72	77	71	74	70	73	69	72	69	72	71	74
Integumentary	68	71	69	70	69	72	70	74	70	70	73	76
Musculoskeletal	70	73	70	72	70	74	70	73	69	69	70	71
Nervous	73	75	73	73	70	75	69	70	70	67	70	71
Respiratory	69	71	69	67	68	73	69	70	69	70	69	69
Special Senses	72	75	71	72	70	74	73	77	71	72	71	72
Renal/Urinary	70	71	70	70	68	73	69	70	69	69	71	74
Reproductive	68	72	68	71	68	73	69	73	69	71	70	75
Multiple Organ Systems	70	71	70	69	70	74	69	72	69	69	70	72
Clinical Practice	70	73	70	71	69	74						
Communication	71	71	70	69	72	74						
Prev. Med and Animal Welfare	68	71	67	70	66	70						
Professionalism, Pract Mgmt, Wellness	69	68										
	Below Avg											
	Avg											
	Above Avg											



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