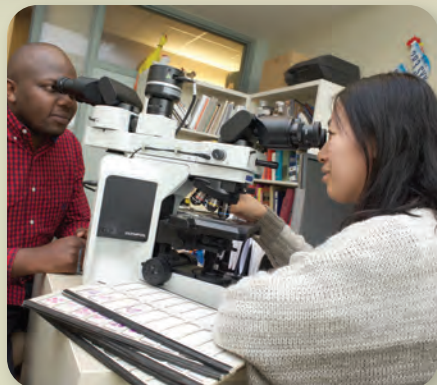




2024

**Self-Study**  
**October 6- 11**

**AVMA COE**  
**ACCREDITATION**



# SELF-STUDY REPORT

IOWA STATE UNIVERSITY  
COLLEGE OF VETERINARY MEDICINE

AMES, IA

LINCOLN, NE

AMERICAN VETERINARY MEDICAL ASSOCIATION  
COUNCIL ON EDUCATION  
October 6 - 11, 2024

## TABLE OF CONTENTS

|  |    |
|--|----|
| Glossary of Acronyms.....  | ii |
| <b>Self-Study Report</b>   |    |
| EXECUTIVE SUMMARY.....   | 1  |
| STANDARD 1. ORGANIZATION.....  | 5  |
| Appendix 1.3.1 Iowa State University Structure .....                         | 15 |
| Appendix 1.3.2 University of Nebraska-Lincoln and SVMBS PPVM Structure.....  | 16 |
| Appendix 1.4.1 ISU College of Veterinary Medicine Structure.....             | 17 |
| STANDARD 2. FINANCES .....   | 18 |
| STANDARD 3. PHYSICAL FACILITIES AND EQUIPMENT.....                           | 23 |
| Appendix 3.2.1 Area Map (ISU) with principal facilities of the college.....  | 31 |
| Appendix 3.2.2 Area Map (UNL) with principal facilities of the college ..... | 32 |
| STANDARD 4. CLINICAL RESOURCES .....   | 33 |
| STANDARD 5. LIBRARY AND INFORMATION RESOURCES.....                           | 42 |
| STANDARD 6. STUDENTS.....  | 46 |
| Appendix 6.6.1 – ISU Orientation Schedule.....                               | 53 |
| Appendix 6.6.2 – UNL Orientation Schedule.....                               | 55 |
| STANDARD 7. ADMISSION.....   | 58 |
| Appendix 7.2 – Admissions Rubric .....                                       | 63 |
| STANDARD 8. FACULTY.....   | 66 |
| STANDARD 9. CURRICULUM .....   | 82 |
| STANDARD 10. RESEARCH PROGRAMS .....   | 89 |
| STANDARD 11. OUTCOMES ASSESSMENT .....                                       | 96 |

## Glossary of Acronyms

|        |  |          |  |
|--------|--|----------|--|
| AAAS   | American Association for the Advancement of Science                    | AVDC     | American Veterinary Dental College                           |
| AAALAC | Association for Assessment and Accreditation of Laboratory Animal Care | AVMA     | American Veterinary Medical Association                      |
| AAHA   | American Animal Hospital Association                                   | BMS      | Biomedical Sciences Department                               |
| AAVLD  | American Association of Veterinary Laboratory Diagnosticians           | BQA      | Beef Quality Assurance                                       |
| AAVMC  | Association of American Veterinary Medical Colleges                    | BSL      | Biosafety Level  |
| ABSL   | Animal Biosafety Level   | BVIP     | Bovine Veterinary Internship Program                         |
| ABVP   | American Board of Veterinary Practitioners                             | BVS & AH | Bachelor of Veterinary Science and Animal Husbandry          |
| ABVT   | American Board of Veterinary Toxicology                                | BVSc     | Bachelor of Veterinary Science                               |
| ACAW   | American College of Animal Welfare                                     | CAPS     | Counseling and Psychological Services (UNL)                  |
| ACGIH  | American Conference of Governmental Industrial Hygienists              | CASNR    | College of Agricultural Sciences and Natural Resources (UNL) |
| ACPV   | American College of Poultry Veterinarians                              | CAST     | Center for Academic Success and Transition (UNL)             |
| ACT    | American College of Theriogenologists                                  | CBVE     | Competency-Based Veterinary Education                        |
| ACVAA  | American College of Veterinary Anesthesia and Analgesia                | CDDR     | Controlled Drug Disposition Record                           |
| ACVCP  | American College of Veterinary Clinical Pharmacology                   | CELT     | Center for Excellence in Learning and Teaching               |
| ACVD   | American College of Veterinary Dermatology                             | CFC      | Couple and Family Clinic (UNL)                               |
| ACVECC | American College of Veterinary Emergency and Critical Care             | CFSPH    | Center for Food Security and Public Health                   |
| ACVIM  | American College of Veterinary Internal Medicine                       | CHS      | Capital Humane Society                                       |
| ACVM   | American College of Veterinary Microbiologists                         | CR       | Credit Hour  |
| ACVO   | American College of Veterinary Ophthalmologists                        | CSA      | Campus Safety Ambassador                                     |
| ACVP   | American College of Veterinary Pathologists                            | CSL      | Clinical Skills Lab  |
| ACVPM  | American College of Veterinary Preventive Medicine                     | CSPC     | Counseling and School Psychology Clinic (UNL)                |
| ACVR   | American College of Veterinary Radiology                               | CTE      | Chronic Traumatic Encephalopathy                             |
| ACVS   | American College of Veterinary Surgeons                                | CVF      | Christian Veterinary Fellowship                              |
| ACZM   | American College of Zoological Medicine                                | CVIS     | Cyclone Veterinary Information System                        |
| ADA    | Americans with Disabilities Act  | CVM      | College of Veterinary Medicine                               |
| ALARA  | As LowAs Reasonably Achievable   | DNR      | Department of Natural Resources                              |
| AMR    | Antimicrobial Resistance   | DSc      | Doctor of Science  |
| ANSC   | Animal Sciences Complex (UNL)  | DVM      | Doctor of Veterinary Medicine                                |
| APHIS  | Animal and Plant Health Inspection Service                             | ECVECC   | European College of Veterinary Emergency and Critical Care   |
| ASCI   | Animal Sciences Complex (UNL)  | ECVIM    | European College of Veterinary Internal Medicine             |
| ASCP   | American Society for Clinical Pathology                                | ECVO     | European College of Veterinary Ophthalmologists              |
| ATI    | Acculabs Technologies, Inc.  | ECVPT    | European College of Veterinary Pharmacology & Toxicology     |
|        |  | ECVS     | European College of Veterinary Surgeons                      |
|        |  | EHS      | Environmental Health and Safety                              |
|        |  | EMR      | Electronic Medical Records                                   |
|        |  | ENREC    | Eastern Nebraska Research and Extension Center               |
|        |  | FACH     | Food Animal and Camelid Hospital                             |
|        |  | FERPA    | Family Educational Rights and Privacy Act                    |

|          |   |           |   |
|----------|---|-----------|---|
| FP&M     | Facilities Planning and Management                                    | PEF       | Equine Performance Evaluation Facility                          |
| FTE      | Full Time Equivalent  | PGCertHE  | Postgraduate Certificate in Higher Education                    |
| gsf      | gross square foot   |           |   |
| GPVEC    | Great Plains Veterinary Educational Center                            | PPVM      | Professional Program in Veterinary Medicine (UNL)               |
| HEPA     | High-Efficiency Particulate Air                                       | PRS       | Position Responsibility Statement                               |
| IACP     | Institutional Animal Care Program (UNL)                               | RNDr      | Rerum naturalium doctor   |
| IACUC    | Institutional Animal Care and Use Committee                           | QS        | Quacquarelli Symonds  |
| IBC      | Institutional Biosafety Committee                                     | SAML      | Security Assertion Markup Language                              |
| ICU      | Intensive Care Unit   | SAS       | Student Accessibility Services                                  |
| ICVA     | International Council for Veterinary Assessment                       | SAVMA     | Student American Veterinary Medical Association                 |
| IRB      | Institutional Review Board  | SLA       | Student Leadership Assembly                                     |
| ISU      | Iowa State University   | SMEC      | Swine Medicine Education Center                                 |
| IT       | Information Technology  | SSD       | Services for Students with Disabilities (UNL)                   |
| IVS      | Iowa Veterinary Specialties   | SSRP      | Summer Scholar Research Program                                 |
| LAR      | Laboratory Animal Resources   | SVIP      | Swine Veterinary Internship Program                             |
| LIDIF    | Livestock Infectious Disease Isolation Facility                       | SVPP      | Senior Vice President and Provost                               |
| LMS      | Learning Management System  | SVMBS     | School of Veterinary Medicine and Biomedical Sciences (UNL)     |
| LVMC     | Lloyd Veterinary Medical Center                                       | T35       | Short-Term Institutional Research Training Grants (NIH)         |
| MAM      | Master of Avian Medicine  | UNL       | University of Nebraska Lincoln (UNL)                            |
| MBA      | Master Business Administration  | URVM      | Underrepresented in Veterinary Medicine                         |
| MPH      | Master of Public Health   | USDA      | United States Department of Agriculture                         |
| MRCVS    | Member of the Royal College of Veterinary Surgeons                    | USDA-NIFA | USDA-National Institute of Food and Agriculture                 |
| MVM      | Master of Veterinary Medicine   | USMARC    | US Meat Animal Research Center                                  |
| MSc      | Master of Science   | VBS       | Veterinary Medicine and Biomedical Sciences Building (UNL)      |
| MVSc     | Master of Veterinary Science  | VBSA      | Veterinary Medicine and Biomedical Sciences Annex (UNL)         |
| NAVLE    | North American Veterinary Licensing Examination                       | VCS       | Veterinary Clinical Sciences Department                         |
| NCHU     | National Chung-Hsing University                                       | VECCS     | Veterinary Emergency & Critical Care Society                    |
| NIAMRRE  | National Institute of Antimicrobial Resistance Research and Education | VDL       | Veterinary Diagnostic Laboratory                                |
| NIFA     | National Institute of Food and Agriculture                            | VDPAM     | Veterinary Diagnostic and Production Animal Medicine Department |
| NIH      | National Institutes of Health   | VEA       | Veterinary Educational Assessment                               |
| NRNC     | non-resident non-contract   | VFS       | Veterinary Field Services                                       |
| nsf      | net square foot   | VMCAS     | Veterinary Medical College Application Service                  |
| NSF      | National Science Foundation   | VMD       | Veterinary Medicine Doctor                                      |
| NSF-GRFP | NSF Graduate Research Fellowship                                      | VML       | Veterinary Medical Library                                      |
| NVDC     | Nebraska Veterinary Diagnostic Center (UNL)                           | VMPM      | Veterinary Microbiology and Preventive Medicine Department      |
| OASA     | Office of Academic and Student Affairs                                | VMRI      | Veterinary Medical Research Institute                           |
| OCATS    | Office of Curricular Assessment and Teaching Support                  | VPR       | Vice President for Research                                     |
| OEO      | Office of Equal Opportunity   | VPTH      | Veterinary Pathology Department                                 |
| OSCE     | Objective Structured Clinical Examination                             |           |   |
| OSHA     | Occupational Safety and Health Administration                         |           |   |
| PA-VEAP  | Production Animal – Veterinary Early Acceptance Program               |           |   |

## EXECUTIVE SUMMARY

Dan Grooms DVM, PhD, Stephen G. Juelsgaard Dean of Veterinary Medicine  
Jared Danielson PhD, Senior Associate Dean for Academic and Student Program Success and Innovation  
Jodi McGill MS, PhD, Interim Associate Dean of Research and Graduate Studies

As articulated in our college mission statement, our overarching goals are to **Develop** the next generation of veterinarians and scientists, **Discover** solutions to important animal and human health questions, and **Deliver** innovative services to the people of Iowa, the US and the world.

The Iowa State University College of Veterinary Medicine (ISU CVM) ranks in the upper 30% of all colleges/schools of veterinary medicine nationally (#7 compared to 15 in 2018) and internationally (#13 compared to #40 in 2018) as reported by the 2024 QS World University Rankings. We attract applicants from all over the US and globally. The number of applicants to our program has increased by 70% since 2018. Our students are well prepared as evidenced by the NAVLE pass rate of 96% in 2022-2023 (92% nationally as reported by ICVA). Our research enterprise has continued to grow, increasing in total annual funding by approximately \$5.5 million since 2020. And our two primary outward facing service units which are integral to all three of our missions – the Lloyd Veterinary Medical Center (LVMC) and the Veterinary Diagnostic Laboratory (VDL) – continue to grow and see record number of cases year after year.

### **Standard 1: Organization.**

**Goal:** To establish a diverse and dedicated leadership team that is well-connected to central university administration and the broader academic and veterinary community.

**Strengths:** The ISU CVM leadership team is diverse in multiple dimensions, including experience, gender, age, race, ethnicity, and professional background, and each brings a unique perspective and expertise that contributes to the college's ability to fulfill its mission. The ISU CVM Dean reports directly to the Senior Vice President and Provost (SVPP) who oversees University Academic Programs. The SVPP reports directly to the ISU President. The majority of the ISU CVM leadership team has connections to central administration through various University Councils and are engaged in professional organizations outside of the ISU CVM.

**Weaknesses:** The majority (15/21) of the college leadership has transitioned since 2018 including the appointment of a new Dean in 2018. This has created challenges with the loss of institutional knowledge, but also provides opportunities for innovation with new energy, ideas and perspectives.

**Future Plans:** The College is investing in current leadership and future leaders through a variety of leadership training opportunities including the ISU Emerging Leaders Academy, the AAVMC Leadership Academy, and the AAPLU Food Systems Leadership Institute.

### **Standard 2: Finances.**

**Goal:** To be a fiscally responsible enterprise that manages the financial burden of the professional DVM education on our students by diversifying and growing our non-tuition revenue streams.

**Strengths:** Our total cost of education continues to be in the lower quartile for resident and the lower half for non-resident DVM students (US Schools). - Between FY2020 and FY2023, there have been significant increases in revenue from the LVMC (45.2%) and VDL (21.9%). In addition, the CVM endowment and gift income has grown substantially (80.7%) and our research enterprise funding has increased by 36.1% resulting in more indirect cost recovery to the college.

**Weaknesses:** Increases in university-wide service costs for central administration, library, facility management, etc. (increased \$4.3 million since FY2020), and flat state appropriations (\$65k increase since 2020) have made tuition increases necessary to maintain our enterprises.

**Future Plans:** To identify avenues to diversify and grow revenue streams to offset decreasing state appropriations and reduce tuition increases. This would include growing our service units and looking at other revenue generation programs such as new graduate, undergraduate or life-long learning programs.

### **Standard 3: Physical Facilities and Equipment.**

**Goal:** To provide our faculty, staff and students a functional, safe and stimulating environment to thrive in their work and learning.

**Strengths:** Our core academic facilities are approaching 50 years old. However, with continuous investments, these facilities and accompanying equipment continue to be functional and safe. We have modernized both the physical environment and AV/IT infrastructure of many of our classrooms, small teaching spaces, and hospital rounds rooms. When modernizing spaces, we have intentionally focused on incorporating student wellness into the design. Renovation of the Lloyd Veterinary Medical Clinic (LVMC) was completed in 2012, creating a world-class facility to provide state-of-the-art medical services to all species and serve as our primary clinical training resource for veterinary students and house officers. An expansion/renovation project of the Veterinary Field Services (VFS) building was completed in 2021. This project significantly upgraded our teaching, research and service capacity linked to the field service unit. Phase 1 of the new Veterinary Diagnostic Laboratory (VDL) was completed in the spring of 2024 and Phase 2 began in Spring 2024 with significant completion anticipated in Fall 2026. This facility will serve as a center for providing state-of-the-art diagnostic service, teaching and research.

**Weakness:** Despite significant investments in upgrading facilities since 2020, additional improvements in key areas are important for supporting the college mission. These include more dedicated student spaces for study, specialized learning (e.g. communication and clinical skills) and testing, faculty, staff and graduate student office space, flexible collaborative spaces, spaces to grow and add innovative clinical services and additional high-quality research space.

**Future Plans:** To meet the needs described above, our strategy is to renovate existing facilities including the soon-to-be-vacated VDL as it is transitioned to the new facility over the next 48 months. We are also in the final planning stages to add new spaces in the LVMC to grow new programs including oncology, theriogenology, and large animal rehabilitation.

### **Standard 4: Clinical Resources.**

**Goal:** To provide exposure to a diversity of species and cases in different settings in order to practice and master entry level clinical and non-technical veterinary skills.

**Strengths:** Across all patient species there has been an overall 21% increase in clinical patient visits to the LVMC since 2020, with relatively stable ambulatory caseloads. The caseload is diverse across the major companion animals (dogs and cats) and livestock species (horses, cattle, pigs, small ruminants). Our students have the opportunity to receive clinical training and to see cases in the LVMC, VFS, the ISU CVM owned Iowa Veterinary Specialties (IVS) in Des Moines, the University of Nebraska – Lincoln (UNL) Great Plains Veterinary Educational Center (GPVEC), and a wide variety of preceptorship opportunities.

**Weaknesses:** There are two concerns with respect to clinical resources. First, the growth of our clinical cases has been primarily in specialty areas. One area that we feel needs to be strengthened is the exposure of students to primary or first opinion care, especially with respect to companion animals. Second, our food animal ambulatory caseload has decreased modestly over the past three years, primarily due to urbanization of the areas serviced by our ambulatory clinic.

**Future Plans:** We are evaluating various solutions to provide primary care experiences to our students. Our ambulatory service has begun to offer more services to non-traditional and niche livestock producers.

### **Standard 5: Information Resources.**

**Goal:** To provide informational resources that facilitate the success of our students, faculty and staff.

**Strengths:** The College maintains a physical library space that serves as a repository for textbooks, journals, and other reference materials. Our community also has access to an array of electronic resources thru the broader university library system including journals, e-books, and a variety of other digital collections. Increasingly, the library serves as a location that facilitates both individual and small group studying. The college has partnered with the library to increase and modernize study spaces within the library. The College also has state-of-the-art classroom learning technologies in didactic, laboratory, clinical, and virtual learning spaces, with a dedicated classroom IT support team that assists both faculty and students.

**Weaknesses:** While Information Resources and facilities are currently adequate, one potential future challenge is maintaining adequate staffing, particularly among IT staff who increasingly have multiple opportunities for well-remunerated fully remote work.

**Future Plans:** We continue to work with our library partner to evaluate student, faculty and staff information resource and facility needs. Future plans include additional upgrades to the library to facilitate various student studying needs.

### **Standard 6: Students.**

**Goal:** To have an engaged, diverse and supportive student body.

**Strengths:** The CVM has an engaged and increasingly diverse student body. The students are highly invested in the college priorities of supporting wellness and a diverse, supportive campus community. Through their input and partnership, the college has invested in a variety of mental and physical health initiatives. They have been instrumental in driving facility changes such as increasing the number of gender-neutral bathrooms and upgrading the study spaces in the library. Students are engaged in every aspect of the college missions including education (tutors), service (student workers), and research (summer research programs). There is a broad array of student driven organizations (~45) that provide tremendous value-added educational opportunities.

**Weakness:** The CVM continues to build diversity within its student body. Growth in student diversity, as measured by AAVMC definitions of students underrepresented in veterinary medicine, has been slow but steady.

**Future Plans:** We continue to implement strategies to diversify our student body including developing pipeline programs, increased recruitment, developing Underrepresented in Veterinary Medicine (URVM) experiential initiatives, evaluation and adjustment of admissions criteria to remove barriers, and increased scholarship opportunities.

### **Standard 7: Admissions.**

**Goal:** A data driven process that is fair, efficient, and correlated with success, and that integrates well with national admissions processes.

**Strength:** Our admissions process focuses on recruiting and identifying highly qualified applicants that will perform well both in our curriculum and in their chosen career path, and that enrich the student body. The admissions committee has used data-driven evidence to eliminate requirements that have been identified as barriers for applicants from underrepresented backgrounds and that are weak predictors of success.

**Weakness:** Attracting high quality applicants from backgrounds that are underrepresented in veterinary medicine and from rural backgrounds.

**Future Plans:** Continue to develop pipeline programs and recruiting initiatives to target prospective applicants that are underrepresented in veterinary medicine and from rural backgrounds.

### **Standard 8: Faculty.**

**Goal:** To have a world-class, diverse, and engaged faculty and support staff.

**Strength:** ISU CVM has long had and continues to have a world-class and dedicated faculty. Our faculty is above average in terms of diversity measures reported to the AAVMC, and even more richly diverse



when taking into account gender identification, age, geographical origination, ability, and other dimensions of diversity.

**Weakness:** Since 2018, faculty turnover has averaged 8% annually. Factors identified that are contributing to this turnover included competition for talent by private non-academic organizations.

**Future Plans:** To remain competitive for recruitment and retention of world-class faculty, we are implementing several strategies to increase salaries, piloting benefits to support financial obstacles unique to veterinarians (federal loan repayment), increasing job flexibility, supporting dual career partners, and working hard to create a caring community.

### **Standard 9: Curriculum.**

**Goal:** To train the next generation of veterinarians and scientists to meet societal needs.

**Strength:** Our curriculum provides a strong foundation in basic sciences, critical thinking, and clinical application. There are embedded opportunities for hands-on skill development in both simulated-patient and “real-world” settings throughout the curriculum. Ongoing assessment activities and curricular coordination by our Year Coordinators help ensure regular review and improvement.

**Weakness:** Despite existing embedded hands-on experiences and efforts to ensure improved vertical integration, there are opportunities for continued improvement in these areas.

**Future Plans:** Through outcomes assessment, the college is committed to a continual process of curricular and programmatic improvement.

### **Standard 10: Research Programs.**

**Goal:** To be a leader in One Health and Translational Medicine research.

**Strength:** ISU CVM is recognized for its applied research in improving the health and well-being of livestock species, especially in the area of infectious disease. We are recognized globally for our work in swine health, diagnostic medicine, and antimicrobial resistance.

**Weakness:** High quality research space is limited which can be a barrier to recruiting the highest quality research-intensive faculty and supporting clinical research.

**Future Plans:** ISU CVM has invested in newly renovated shared core laboratory space and plans to add newly renovated research space when areas currently occupied by the VDL are vacated.

### **Standard 11: Assessment and Outcomes.**

**Goal:** To provide information to support continuous curricular improvement.

**Strength:** ISU CVM maintains the Office of Curricular Assessment and Teaching Support (OCATS). This highly qualified team supports comprehensive individual student and program-level assessment, including surveys, standardized measures, and individual classroom measures of student achievement, considering student experiences both pre- and post-graduation. Assessment findings are regularly communicated to college administrators and faculty to support continuous improvement.

**Weakness:** Despite robust individual student and program-level assessment and regular use of ongoing assessment data, our assessment program still does not provide centrally-accessible assessment of individual students at the objective or competency level across all years of the curriculum as is found in programmatic assessment approaches.

**Future Plans:** The college is currently piloting increased implementation of a competency-based approach, with a new fourth year assessment instrument based on the AAVMC Competency-Based Veterinary Education (CBVE) framework being piloted in select fourth year rotations. The college is further exploring ways to adopt a programmatic assessment approach.





## STANDARD 1. ORGANIZATION

### **1.1. Provide a college mission statement for the undergraduate, DVM, or equivalent program.**

**MISSION STATEMENT:** Our mission is to “**Develop** the next generation of veterinarians and scientists, **Discover** solutions to important animal and human health questions, and **Deliver** innovative services to the people of Iowa, the U.S. and the world.” Encompassed by that mission is a commitment to providing high-quality instruction, opportunities for real-world clinical application, and scientific-based research experiences for professional and graduate students across a wide variety of disciplines in a wide variety of domestic species including food animal, equine, and companion animal. Although ISU CVM does not offer an undergraduate major, our college faculty provide instruction in a number of courses that support undergraduate education across the university.

### **1.2. Identify the body that accredits the university and the current status of accreditation.**

Iowa State University (ISU) and the University of Nebraska-Lincoln (UNL) are accredited by the Higher Learning Commission, a commission of the North Central Association of Colleges and Schools. The last accreditation was granted on February 8, 2016 (ISU) and January 23, 2017 (UNL), with the next Reaffirmation of Accreditation scheduled for 2025-26 (ISU) and 2026-27 (UNL).

Information regarding the college’s AVMA-COE accreditation status, including the date of the next site visit, is available to the public at the following webpage: <https://vetmed.iastate.edu/about/about-college/accreditation>.

### **1.3. Provide a flow chart indicating the position of the college of veterinary medicine in the university structure and show lines of authority and responsibility, and give the names and titles of principal university administrative officers related to the college.**

**Iowa State University Structure - (see Appendix 1.3.1.)**

**The University of Nebraska – Lincoln (UNL) University Structure - (see Appendix 1.3.2.)**

### **1.4. Provide a flow chart of the organizational design of the college listing names, titles (deans, associate/assistant deans, directors, department heads, etc.), academic credentials, and assignments of the college administrators.**

#### **ISU ADMINISTRATIVE STRUCTURE: COLLEGE OF VETERINARY MEDICINE**

The Dean of the ISU CVM is a veterinarian and reports directly to the University Senior Vice President and Provost, who in turn reports directly to the President. The Dean is advised and assisted in matters of policy and operations by the Dean’s Cabinet, composed of a Sr. Associate Dean, an Associate Dean, three Assistant Deans, five Department Chairs, an Executive Director of Hospital Operations, a Director of the Veterinary Diagnostic Laboratory, a Faculty Success Advisor, a College Fiscal Officer/Director of Operations, a College Human Resources Partner, a College Communications Director, a College Executive Development Officer, a faculty representative of the CVM Governance Council (chair), and an Executive Assistant. The Director of the UNL School of Veterinary Medicine and Biomedical Sciences is also a member of the Dean’s Cabinet. The administrative officers responsible for the professional, ethical, and academic affairs of the veterinary teaching hospital, the veterinary diagnostic laboratory, and other clinical facilities are all veterinarians. (See Appendix 1.4.1)

### **1.5. Describe the role of faculty, staff, and students in the governance of the college.**

## **ISU GOVERNANCE**

The college governance document establishes the role of the faculty in the governance of the college and was last updated in Fall 2022. Faculty “have primary responsibility for educational policies and procedures, including admission requirements, graduation requirements, curriculum and course revisions, new degree programs, grading procedures, academic standards, and methods of instruction.” The faculty also recommend candidates for diplomas and degrees. Staff participate as voting members in several college Committees including the Diversity and Inclusion Committee, Safety Committee, and Faculty, Staff, and Alumni Awards Committee. Students participate as members of the Curriculum Committee, Diversity and Inclusion Committee, Student Faculty Relations Committee, and Graduate and Professional Student Senate. The Governance Council, comprised of one faculty member from each department and two college staff members, represents the general interests of faculty and staff in their relations with the administration of the college. The Governance Council faculty members are elected by their departments; staff members of the Governance Council are appointed by the Dean. Faculty representatives are also selected by their peers to serve on the University Faculty Senate which represents the general faculty in shared governance of the university with the university administration. Seven ISU CVM faculty serve on the Faculty Senate and comprise the CVM Faculty Senate Caucus.

## **UNL GOVERNANCE**

According to the bylaws of the Board of Regents, “the immediate government of each college shall be by its own faculty.” This governance includes determining admission and graduation requirements, recommending candidates for graduation, and developing courses of study. UNL participates in shared governance between the faculty and administration through the Faculty Senate, whose representative members are elected by faculty of the different academic units. The Faculty Senate acts as the official voice of the faculty and works with student, staff, and administrative groups on matters of general concern, such as budget, institutional planning, student conduct, and selection of academic-administrative personnel.

The Association of Students of the University of Nebraska serves as the representative voice of the student body and senators are elected to represent students from every college. This organization makes recommendations to the administration concerning the budgeting of funds designated for student organizations and representatives serve on appropriate university committees, such as those that directly affect the nonacademic aspects of student life.

The Staff Senate serves as the advisory body on issues, institutional policies, and practices that relate to UNL staff. Senators are elected to represent specific areas of the campus community, such as finance, student affairs, and research. This group is responsible for advocating for staff welfare and development, suggesting revisions and initiatives to improve staff policies, and participating in the formulation of institutional policy and governance.

### ***1.6. Provide a short (3 sentences or less) description of the charge of each of the standing committees listed in the CVM governance table.***

ISU CVM has 15 standing committees, as well as the Governance Council and CVM Faculty Senate Caucus. Prospective committee members are nominated by academic departments and appointed by the Dean in consultation with the Cabinet. Academic departments determine the selection process for their nominees. One additional faculty member may be appointed to each committee by the Governance Council, at the Governance Council’s discretion. Committee members are appointed to three-year terms with the possibility of being reappointed for an additional three-year term. Committee terms of service are staggered. College committees are advisory to the Dean or the Dean’s designee (e.g. Associate Dean). College faculty also have representation on university-wide committees.



**Table 1.6.1 - CVM Governance Table: Standing Committees – ISU (15 committees) and UNL (4 committees)**

| Standing Committee  | Reports to                        | Appointed by:  | Membership Structure   | Current Membership  | Term Lengths  | Renewable Term                |
|---|-----------------------------------|--|--|---|---|-------------------------------|
| <b>Iowa State University College of Veterinary Medicine</b> |                                   |  |  |   |   |                               |
| Academic Standards  | Dean CVM<br>Senior Associate Dean | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet.   | 5 faculty (one from each academic department)<br>3 ex officio members (Sr. Assoc Dean, Asst. Dean, Record Analyst)   | <b>Faculty:</b><br>Gayle Brown (Chair)<br>Rod Bagley<br>Vlastislav Bracha<br>Matt Brewer<br>Scott Radke<br><b>Ex officio:</b><br>Jared Danielson<br>Monica Howard<br>Mindy Schminke   | Faculty: 3-year term<br><br>Ex officio: indefinite                              | Yes, renewable once           |
| Admissions  | Dean CVM<br>Senior Associate Dean | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet.   | 5 faculty (one from each academic department)<br>1 external DVM<br>4 ex officio members (Sr. Assoc Dean, Asst. Dean, Coordinator of Admissions, Coordinator of PPVM)   | <b>Faculty:</b><br>Eric Rowe (Chair)<br>Gayle Brown<br>Brian Collins<br>Tyler Harm<br>Joe Thomas<br>Kylee Thomas<br><b>Ex officio:</b><br>Jared Danielson<br>Monica Howard<br>Kathy Kuehl<br>Renee McFee  | Faculty and external DVM: 3-year term<br><br>Ex officio: indefinite             | Yes, renewable once           |
| Advancement of Term Faculty                                 | Dean CVM                          | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet.   | 5 faculty (one from each academic department)  | <b>Faculty:</b><br>Brenda Mulherin (Chair)<br>Matt Brewer<br>Mark Lyte<br>Chris Rademacher<br>David Starling  | 3-year term   | Yes, renewable once           |
| Assessment  | Dean CVM<br>Senior Associate Dean | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet.   | Flexible number of faculty (at least one from each academic department)<br><br>Sufficient representation to provide expertise across the areas of college assessment<br><br>2 ex officio members (OCATS Director, Co-Chair; OCATS Student Services Specialist) | <b>Faculty:</b><br>Rachel Friedrich (Co-Chair)<br>Aliye Karabulut-Ilgu (Co-Chair, ex officio)<br>Cheryl Auch<br>Brian Collins<br>Ron Griffith<br>Michael Lyons<br><b>Ex officio:</b><br>Melody Gustafson  | Faculty: 3-year term<br><br>Ex officio: indefinite                              | Yes, renewable once           |
| Curriculum  | Dean CVM<br>Senior Associate Dean | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet.<br><br>Students elected by their class (2 per class), must be in good academic standing | 5 faculty (one from each academic department)<br><br>8 students (two from each class)<br><br>4 ex officio members (Sr. Assoc Dean, Record Analyst, Coordinator of PPVM, Education Associate Chair, VCS)  | <b>Faculty:</b><br>June Olds (Chair)<br>Justin Brown<br>Thimmasettapp<br>Thippeswamy<br>Mark Morton<br>Radford Davis<br><b>Students:</b><br>Ashley Lounsberry<br>Kristen Larson<br>Nourah Abusada<br>Karisa Quimby<br>Maggie Cronk<br>Makenna Daniel<br>(2 VM1 students not yet appointed)<br><b>Ex officio:</b><br>Jared Danielson<br>Mindy Schminke<br>Renee McFee<br>Melissa Tropf | Faculty: 3-year term<br><br>Students: 4-year term<br><br>Ex officio: indefinite | Yes, renewable once (faculty) |

|                                   |                                     |  |  |  |  |                     |
|-----------------------------------|-------------------------------------|--|--|--|--|---------------------|
| Diversity and Inclusion           | Dean CVM                            | Nominated at large; approved by the committee  | Flexible number of faculty (at least one per academic department)<br><br>Sufficient numbers to provide representation across all areas of college including faculty, staff, professional students, and graduate students<br><br>2 ex officio members (Faculty Success Advisor, Asst. Dean) | <b>Faculty:</b><br>Rachel Derscheid (Chair, Ex officio)<br>Carrie Berg<br>Iddo Friedberg<br>Joan Howard<br>Doug Jones<br>Orhan Sahin<br><b>Staff:</b><br>Karen Barker<br>Dave Gieseke<br>Monica Hepker<br>Amber Hoskins<br>Kathy Mou<br>Anugrah Saxena<br><b>Residents:</b><br>Elizabeth Manson<br>Kimberly Spartz<br><b>Students:</b><br>Nourah Abusada<br>Rachel Despain<br>Alyssa Dooley<br>Neena Lynton<br>Sarah Neill<br>Leopoldine Viollet (2 VM1 students not yet appointed)<br><b>Graduate Students:</b><br>Nicholas Bockenstedt (1 BMS MS student not yet appointed)<br><b>Ex officio:</b><br>Monica Howard | Faculty: 3-year term<br><br>Ex officio: indefinite | Yes, renewable once |
| Faculty, Staff, and Alumni Awards | Dean CVM                            | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet. | Flexible number of faculty and staff (at least one from each academic department)<br><br>Ex officio members from the Dean's office, Communications, and Development  | <b>Faculty/Staff:</b><br>Rachel Allbaugh (Chair)<br>Lindsey Alley<br>Eric Burrough<br>Kelly Boesenberg-Smith<br>Amelia Dohlman<br>Richard Martin<br>Mark Morton<br>Mike Wannemuehler<br><b>Ex officio:</b><br>Dave Gieseke<br>Tracy Raef<br>Lisa Sebring<br>Trent Wellman  | Faculty: 3-year term<br><br>Ex officio: indefinite | Yes, renewable once |
| Graduate Curriculum               | Dean CVM<br>Associate Dean Research | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet. | 5 faculty (one from each academic department)<br><br>Ex officio members from the Office of Research and Graduate Studies   | <b>Faculty:</b><br>Bryan Bellaire (Chair)<br>Marcelo Almeida<br>Al Jergens<br>Ariel Nenninger<br>Ravi Singh<br><b>Ex officio:</b><br>Jodi McGill   | Faculty: 3-year term<br><br>Ex officio: indefinite | Yes, renewable once |
| International Development         | Dean CVM                            | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet. | 5 faculty (one from each academic department)<br><br>2 ex officio members from OASA (International Programs office)  | <b>Faculty:</b><br>Mohamed El-Gazzar (Chair)<br>Todd Bell<br>Radford Davis<br>Jesus Diaz Bujan<br>Alan Robertson<br><b>Ex officio:</b><br>Jessica Ward<br>Xiaoshuang Wei   | Faculty: 3-year term<br><br>Ex officio: indefinite | Yes, renewable once |

|                       |                                   |  |  |  |  |                     |
|-----------------------|-----------------------------------|--|--|--|--|---------------------|
| Promotion and Tenure  | Dean CVM                          | Faculty members (full professors) nominated by academic departments. Appointed by Dean with consultation with Cabinet. | 5 faculty (one from each academic department)  | <b>Faculty:</b><br>Mike Wannemuehler (Chair)<br>Tim Day<br>Doug Jones<br>Locke Karriker<br>Jim Noxon   | Faculty: 3-year term                               | Yes, renewable once |
| Ramsey Lecture Series | Dean CVM                          | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet.                   | At least 5 faculty (at least one from each academic department)<br><br>Ex officio members from the ISU Foundation, Research Office, and Communications   | <b>Faculty:</b><br>Al Jergens (Chair)<br>Daniel Linhares<br>Thimmasettapp<br>Thippeswamy<br>Sam Udomteerasawat<br><b>Ex officio:</b><br>Mike Wannemuehler<br>Trent Wellman<br>Jade Link<br>Karen Barker<br>Tracy Raef  | Faculty: 3-year term<br><br>Ex officio: indefinite | Yes, renewable once |
| Research Advisory     | Dean CVM                          | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet.                   | At least 5 faculty (at least one from each academic department)<br><br>Ex officio members from the Office of Research and Graduate Studies   | <b>Faculty:</b><br>Qijing Zhang (Chair)<br>Luis Gimenez-Lirola<br>Josh Beck<br>Todd Bell<br>Olufemi Fasina<br>Sudhir Kumar<br>Jamie Kopper<br>Pablo Pineyro<br>Alan Robertson<br>Gustavo Silva<br>Brad Blitvich<br><b>Ex officio:</b><br>Jodi McGill<br>Karen Barker   | Faculty: 3-year term<br><br>Ex officio: indefinite | Yes, renewable once |
| Safety                | Dean CVM                          | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet.                   | At least 5 faculty and staff (at least one from each academic department)<br><br>Ex officio members from related areas, including teaching and research spaces, Operations, Communications, and the LVMC | <b>Faculty/Staff:</b><br>William Robertson (Chair, Ex officio)<br>Karl Bolser<br>Radford Davis<br>Karla Godfrey-Dixon<br>Amanda La Coco<br>Jennifer Scaccianoce<br><b>Ex officio:</b><br>Brian Adams<br>Bryan Bellaire<br>Brian Carney<br>Erin Kalkwarf<br>Renee Knosby<br>Tracy Raef<br>Brian Rowe-Barth<br>Lindsey Tackett | Faculty: 3-year term<br><br>Ex officio: indefinite | Yes, renewable once |
| Student Awards        | Dean CVM<br>Senior Associate Dean | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet.                   | At least 5 faculty (at least one from each academic department)<br><br>Ex officio members from OASA  | <b>Faculty:</b><br>Mitch Hiscocks (Chair)<br>LeAnn Anderson<br>Gayle Brown<br>Steve Carlson<br>Caitlin<br>Messerschmidt<br>Philip Onyono<br>Lisa Uhl<br><b>Ex officio:</b><br>Jessica Ward<br>Kathy Kuehl  | Faculty: 3-year term<br>Ex officio: indefinite     | Yes, renewable once |

|  |                                |  |   |  |  |                     |
|--|--------------------------------|--|---|--|--|---------------------|
| Student Faculty Relations  | Dean CVM Senior Associate Dean | Faculty members nominated by academic departments. Appointed by Dean with consultation with Cabinet. | 5 faculty (one from each academic department)<br><br>Students: Class Presidents, SAVMA Officers, and Graduate Student Representatives<br><br>Ex officio members from OASA and Office of Research and Graduate Studies | <b>Faculty:</b><br>Carrie Berg (Chair)<br>LeAnn Anderson<br>Cheryl Auch<br>Theresa Beachler<br>Amanda Kreuder<br><b>Ex officio:</b><br>Monica Howard<br>Jessica Ward<br>Jodi McGill<br><b>Students:</b><br>Cayla Domagala<br>Victoria McCombs<br>Bethany Ahlers-Sisler<br>Hannah Burrows<br>Bailey Wetzel<br>Ashley Lounsberry<br>Olivia Snead<br>Olivia Hoover<br>Ragain Hatfield<br>Alex Webster<br>Maggie Crane<br>Nikhil Sanjay<br>Christina Meyer<br>(VM1 students not yet appointed) | Faculty: 3-year term<br><br>Ex officio: indefinite<br><br>Students: Length of the leadership term that qualifies them for membership | Yes, renewable once |
| Governance Council   | Independent                    | Faculty members elected by each academic department. Staff members appointed by Dean.                | 5 faculty (one from each academic department)<br><br>2 CVM staff members (one Merit employee, one P&S employee)   | <b>Faculty:</b><br>Derald Holtkamp (Chair)<br>Ron Griffith<br>Alliye Karabulut-Ilgu<br>Jim Noxon<br>Eric Rowe<br><b>Staff:</b><br>Bill Robertson (P&S)<br>Lisa Kalamaja (Merit)  | Indefinite   | Yes, renewable once |
| University of Nebraska-Lincoln Professional Program in Veterinary Medicine |                                |  |   |  |  |                     |
| Admissions Committee   | CASNR Dean<br>ISU CVM Dean     | Appointed by UNL SVMBS Director  | 3 faculty members<br><br>2 external DVMs<br><br>1 ex officio member (PPVM Coordinator, serves as Chair)   | <b>Faculty:</b><br>Bruce Brodersen<br>Rebecca Funk<br>Amy Walton<br><b>DVM:</b><br>Zack Adam<br>Sarah Post<br><b>Ex officio:</b><br>Renee McFee (chair)  | Faculty: 3-year term<br><br>DVM: 2-year term<br><br>Ex officio: indefinite   | Yes, renewable      |
| Curriculum Committee   | UNL SVMBS Director             | Elected by UNL SVMBS faculty   | 5 faculty members<br><br>2 student members (non-voting, one from each class)<br><br>2 ex officio members (PPVM Coordinator, serves as Chair; Curriculum Specialist)   | <b>Faculty:</b><br>Amy Desaulniers<br>Beth Galles<br>Sarah Sillman<br>Christina Topliff<br>Amy Walton<br><b>Students:</b><br>Jenna Trenhaile<br>Molly Andreasen<br><b>Ex officio:</b><br>Renee McFee (chair)<br>Barb Banks   | Faculty: 3-year term<br><br>Students: 2-year term<br><br>Ex officio: indefinite  | Yes, renewable      |
| Academic Standards Committee   | UNL SVMBS Director             | Elected by UNL SVMBS faculty   | 3 faculty members<br><br>1 ex officio member (PPVM Coordinator, serves as Chair)  | <b>Faculty:</b><br>Amy Desaulniers<br>Christina Topliff<br>Sarah Sillman<br><b>Ex officio:</b><br>Renee McFee (chair)  | Faculty: 3-year term<br><br>Ex officio: indefinite   | Yes, renewable      |



|                                  |                    |                              |  |   |  |                |
|----------------------------------|--------------------|------------------------------|--|---|--|----------------|
| Scholarship and Awards Committee | UNL SVMBS Director | Elected by UNL SVMBS faculty | 3 faculty members<br>1 ex officio member (PPVM Coordinator, serves as Chair) | <b>Faculty:</b><br>Amy Desaulniers<br>Seth Harris<br>Christina Topliff<br><b>Ex officio:</b><br>Renee McFee (chair) | Faculty: 3-year term<br>Ex officio: indefinite | Yes, renewable |
|----------------------------------|--------------------|------------------------------|--|---|--|----------------|

**Committee Charges:**

**ISU:**

**Academic Standards.** Administer the academic standards of the college by evaluating criteria and outcomes for students to receive warning, academic probation, or dismissal letters. Review appeal cases as needed; review and recommend students for re-admission; review transfer student applications for admission.

**Admissions.** Review applications by standardized criteria, identify students with characteristics and academic achievement leading to a successful career and excellence in the veterinary profession. The committee generates a final list of accepted applicants, which is reviewed for acceptance by the Dean who approves the offers of admission. Confidentiality about the admissions committee proceedings and outcomes, as well as applicants and their data, is a requirement for all committee members.

**Advancement of Term Faculty.** Evaluate, review, and recommend eligible term faculty for advancement who have been forwarded to the Dean by their respective administrative unit. The committee will be composed of tenured faculty and term faculty at or above the rank being considered for advancement.

**Assessment.** Regularly review methods for assessing instruction, make recommendations regarding the instruments and processes to be used to assess instructors and courses, and help maintain and promote a high-quality comprehensive student outcomes assessment plan for the DVM program.

**Curriculum.** Facilitate continuous improvement in the curriculum. Follow standard operating procedures for review of courses, syllabi templates, new course proposals, and catalog changes. Review outcomes from assessment and surveys to inform change or retention of curricular subjects.

**Diversity and Inclusion.** Facilitate opportunities to promote diversity and inclusion in all aspects of veterinary medicine, including enhancing the understanding by faculty, staff, and students of the diverse nature of the profession and diverse views of veterinary stakeholders.

**Faculty, Staff & Alumni Awards.** Solicit, evaluate, and rank nominations for outstanding college, university, national, and international awards, including veterinary alumni, faculty, staff, distinguished professor and university professor awards.

**Graduate Curriculum.** Evaluate graduate courses that contribute to the conferring of graduate degrees.

**International Development.** Provide education and information regarding international programs for students and faculty. Develop and monitor international MOUs and MOAs. Evaluate applicants for the Faculty Professional Development Grants and Foreign Travel Grants to make recommendations to the Dean.

**Promotion & Tenure.** Evaluate, review, and recommend eligible faculty for promotion and tenure who have been forwarded to the Dean from their respective administrative unit.

**Ramsey Lecture Series.** Facilitate the college-wide Ramsey Lecture Series, a seminar series designed to engage all members of the college in high-level scientific discussions. The seminar series will highlight speakers who are topic experts in areas related to the basic sciences, veterinary medicine, or One Health and Translational Medicine.

**Research Advisory.** Evaluate and rank research proposals submitted by faculty for College and University grants. Assist in development of programs to promote faculty preparation of research proposals for submission to university, federal, government, and industry sources. Advise the Associate Dean for Research regarding research policy and procedures.

**Safety.** Identify and propose solutions to human safety or security issues within the CVM; promote programs that provide training for work-related safety topics; develop and promote preventive safety procedures.

**Student Awards.** Consult with members of the CVM to identify and select student scholarship and award recipients that meet the criteria of each award with coordination and support by OASA.

**Student Faculty Relations.** Review and assess issues involving student-faculty relationships, and promote programs that will enhance interaction of faculty and students.

**Governance Council.** Review college and department governance documents; inform the college and academic departments of new legislation to be included in governance documents; provide assistance to units on questions regarding governance policy.

**UNL:**

Admissions Committee. Review applications for the Professional Program in Veterinary Medicine (PPVM). Following completion of the academic and application evaluation, the Committee makes recommendations regarding admission and denial of applicants.

Curriculum Committee. Establish procedures and policies for all matters regarding the curriculum, including the review of current and new PPVM courses.

PPVM Academic Standards Committee. Review the academic standards policies, cases of failing academic performance, cases of academic misconduct, and cases of temporary medical hardship.

PPVM Scholarships and Awards Committee. Review scholarship application materials and select recipients for PPVM scholarships and awards. Recommend PPVM recipients for external scholarships, as requested.

**1.7. If the college plans to change its current organization, provide a summary of those plans.**

The college has no plans to change its current organization.

**1.8. Provide the college's statement on diversity, equity, and inclusion.**

In recognition of the importance and value of diversity in everything we do, Iowa State University College of Veterinary Medicine is committed to actively promoting diversity and inclusion that embraces the value of the many areas of the veterinary medical profession, and the value of varied cultural backgrounds, ethnicities, gender, gender identity or expression, sexual orientations, ages, religions, physical and mental abilities of our students, faculty and staff. See:

<https://vetmed.iastate.edu/about/diversity-and-inclusion>

***1.9. Provide documentation of policies and activities that demonstrate that diversity, equity, and inclusion are important parts of the institutional structure and climate, as consistent with applicable law. Information should document how the college fulfills its statement on diversity, equity, and inclusion.***

The College has a standing Diversity and Inclusion Committee (see section 1.6, above) that works to enact the college's commitment to making the ISU CVM a welcoming and inclusive place to work and learn. This commitment to diversity, equity, and inclusion (DEI) is incorporated into many aspects of the institutional structure and climate, including the following:

- 1) Admissions: The college, through the work of the Admissions Committee, seeks to remove barriers to entry that are unique to applicants who are traditionally underrepresented in veterinary medicine. In support of this goal, and to improve the admissions process more generally, the Admissions Committee decreased the number of required hours of veterinary/animal/research related experience and removed the interview requirement for applicants. ISU CVM has also established several scholarships, including the Frederick Douglass Patterson Scholarship, to support the educational cost of students who through their experience, activities and academic work will contribute to student body diversity. The diversity of our admitted classes has grown over the past 6 years.
- 2) Training: Members of the College participate in a variety of training activities related to DEI, including inclusive classroom training (all faculty) and implicit bias training (Admissions Committee and admissions staff, Term Faculty Advancement Committee, Promotion and Tenure Committee, and all faculty Search Committees). ISU CVM also offers voluntary participation in the Purdue Online Certificate for Diversity and Inclusion in Veterinary Medicine (a cohort of 30 faculty, staff and students per year).
- 3) Activities: The College sponsors a variety of annual activities intended to celebrate diversity and inclusion. These include our annual Martin Luther King, Jr. Day of Service, as well as multiple DEI-related presentations and lectures each year.
- 4) Outside consulting: In an effort to continuously improve, ISU CVM underwent an extensive review of its diversity and inclusion activities in 2019. Dr. Hilda Mejia Abreu, Associate Dean of Admissions, Student Life, and Inclusivity at Michigan State University's College of Veterinary Medicine, conducted a comprehensive review of ISU CVM practices and resources, suggesting ways to enhance diversity and inclusion programming in the college.
- 5) Leadership emphasis: Several times per year (each month with a fifth Tuesday), the Dean's Cabinet participates in a cabinet meeting specific to a DEI-related topic.
- 6) Recognition: ISU CVM has established an award to recognize faculty who have provided exemplary leadership in advancing DEI in our community.
- 7) Student organizations: ISU CVM supports a variety of student clubs representing a diversity of student backgrounds and interests, including Latinx Veterinary Medical Association (LVMA), Pakistan Student Association, Veterinarians as One Inclusive Community for Empowerment (VOICE), Veterinarians without Borders, and Christian Veterinary Fellowship (CVF). See: <https://www.stuorg.iastate.edu/organizations/24/type>.
- 8) Honoring Dr. Frederick Douglass Patterson: During the 2022-2023 academic year, the college celebrated the centennial of the graduation of one of ISU CVM's most impactful Black graduates, Dr. Frederick Douglass Patterson. This celebration culminated with the naming of the main ISU CVM academic building Patterson Hall and the establishment of the Patterson Opportunity Fund endowment to support programs that foster an inclusive environment.

***1.10. Describe how the college collects and uses information on diversity, equity, and inclusion to inform college decisions.***

The Dean and his leadership team hold regular meetings with student leaders and solicit input regarding the college climate, particularly as it relates to DEI. The college also participates in regular climate surveys (conducted by the University) and asks DEI-related questions on its own internal surveys of graduating seniors. Demographic data is collected from VMCAS, ISU WorkDay Student, and ISU WorkDay. Information from these sources, as well as informal input from the Diversity and Inclusion Committee, CVM Faculty Success Advisor, and Dean's Cabinet, inform ongoing decisions regarding DEI-related programming and other activities.

***1.11. Describe the system for reporting and responding to allegations of discrimination or harassment.***

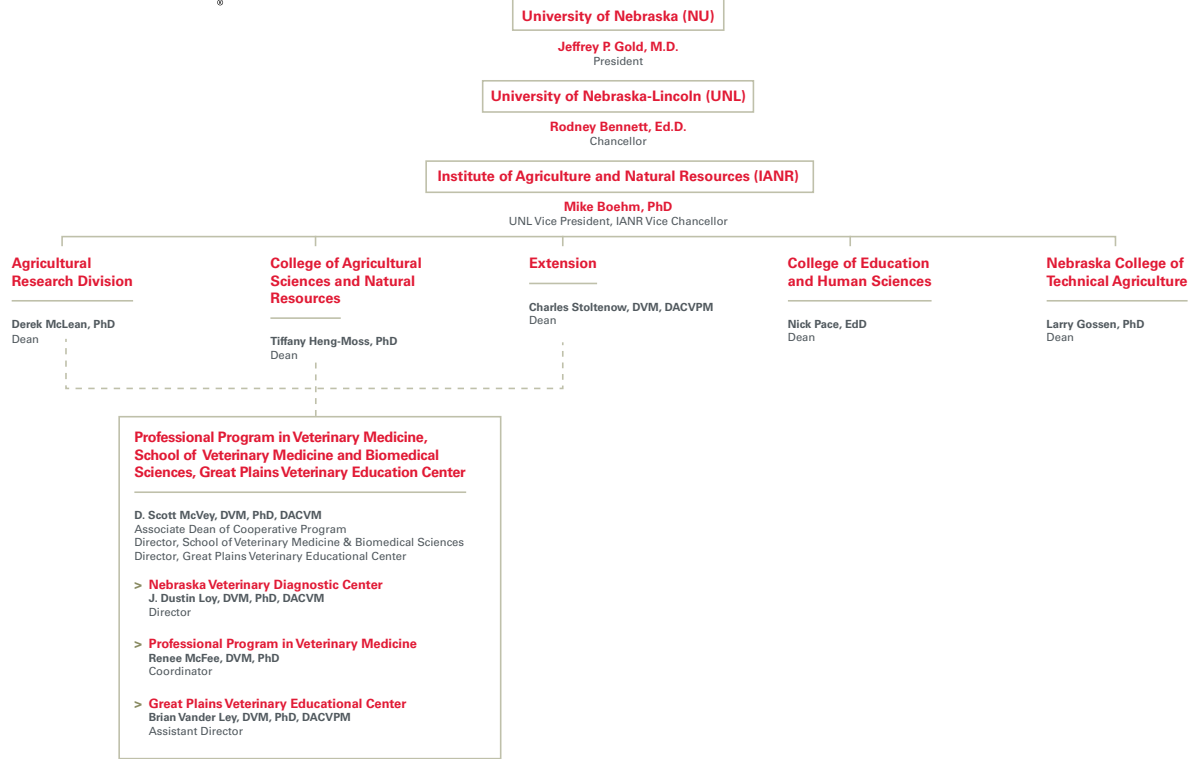
Faculty and most staff are considered "responsible employees," meaning that they are obligated to report sexual harassment or sexual violence to the University's Office of Equal Opportunity (OEO). Allegations of non-sexual discrimination or harassment can likewise be reported through the University's OEO via an online incident form, phone, e-mail, or in-person. OEO determines whether alleged offenses require a formal investigation. Most alleged discrimination or harassment is referred to and handled by the direct supervisor of the individual accused of perpetrating the offense, or by the Office of Academic and Student Affairs (OASA), if the alleged perpetrator is a student. Responses vary considerably depending on the nature of the discrimination and harassment, ranging from informal dialogue to formal discipline, up to and including termination or dismissal. The college's Title IX Coordinator and Diversity and Inclusion Committee Chair also serve as resources for answering questions relating to reporting or responding to alleged discrimination or harassment.

# Standard 1. Appendices

## Appendix 1.3.1 - Iowa State University Structure



# Appendix 1.3.2 - University of Nebraska-Lincoln and SVMBS PPVM Structure



## Appendix 1.4.1 - ISU College of Veterinary Medicine Structure







## STANDARD 2. FINANCES

2.1. Complete Tables A, B, and C for the past five years and analyze the trends for each category.  
Updated Tables and Figures 8-27-2024

### EXPENDITURES FOR IMMEDIATE PAST FIVE FISCAL YEARS

**TABLE A**

| Expenditure   | Fiscal Year          |                      |                      |                      |                      | % change     |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|--------------|
|   | FY 2020              | FY 2021              | FY 2022              | FY 2023              | FY 2024              |              |
| Instruction, academic support, and student services   | \$15,453,626         | \$16,163,474         | \$16,627,207         | \$17,664,271         | \$17,348,673         | 12.3%        |
| Research expenditures   | \$21,826,200         | \$22,638,229         | \$23,155,418         | \$27,050,504         | \$27,894,065         | 27.8%        |
| Outreach/continuing education   | \$7,454,335          | \$7,643,876          | \$7,646,962          | \$9,041,365          | \$8,030,980          | 7.7%         |
| Teaching hospital   | \$21,463,647         | \$23,527,601         | \$25,716,884         | \$27,317,451         | \$29,921,338         | 39.4%        |
| Diagnostic lab and other clinical lab   | \$32,295,576         | \$34,130,646         | \$36,334,048         | \$38,096,334         | \$43,641,716         | 35.1%        |
| Facilities operations and maintenance, utilities and other expenditure for infrastructure   | \$14,859,878         | \$16,128,124         | \$18,221,242         | \$19,176,709         | \$20,243,301         | 36.2%        |
| Capital expenditures (renovations and new construction)                                     | \$2,732,793          | \$4,535,221          | \$756,461            | \$353,265            | \$12,856,950         | 370.5%       |
| Student aid (extramurally sponsored grants to students selected by the institution)         | \$1,705,324          | \$1,703,641          | \$1,828,314          | \$1,922,830          | \$1,959,731          | 14.9%        |
| Student aid (university-sponsored aid to students, inclusion of gifts and endowment income) | \$937,090            | \$905,619            | \$1,118,037          | \$1,553,251          | \$1,888,399          | 101.5%       |
| Other expenditures  | (\$1,777,384)        | (\$2,366,906)        | (\$2,552,813)        | (\$2,786,371)        | (\$2,931,956)        | 65.0%        |
|   |                      |                      |                      |                      |                      |              |
| <b>Total expenditures</b>   | <b>\$116,951,085</b> | <b>\$125,009,525</b> | <b>\$128,851,760</b> | <b>\$139,389,610</b> | <b>\$160,853,197</b> | <b>37.5%</b> |

COLLEGE REVENUE FOR IMMEDIATE PAST FIVE FISCAL YEARS

**TABLE B**

| Revenue   | Fiscal Year  |              |              |              |              | % change |
|---|--------------|--------------|--------------|--------------|--------------|----------|
|   | FY 2020      | FY 2021      | FY 2022      | FY 2023      | FY 2024      |          |
| Government appropriation to college   | \$4,400,000  | \$4,337,528  | \$4,400,000  | \$4,400,000  | \$4,520,000  | 2.7%     |
| University appropriation to college (If veterinary student tuition is returned in this appropriation, subtract it and include it in line 3).  | \$20,539,373 | \$20,742,939 | \$20,544,070 | \$20,605,028 | \$22,663,326 | 10.3%    |
| 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). | \$25,387,671 | \$26,782,105 | \$28,398,617 | \$29,371,701 | \$30,536,338 | 20.3%    |
| Tuition and fee revenue paid by other entities on the students' behalf (e.g. educational contracts & fees for clinical instruction)   | \$996,221    | \$887,949    | \$639,050    | \$557,600    | \$1,091,998  | 9.6%     |
| Teaching hospital revenue   | \$15,898,666 | \$18,285,070 | \$20,146,103 | \$23,085,911 | \$24,169,336 | 52.0%    |
| Diagnostic lab and other clinical lab revenue   | \$27,428,631 | \$31,792,711 | \$32,283,926 | \$33,429,623 | \$35,143,961 | 28.1%    |
| Extramural grants and contracts   | \$15,282,895 | \$16,044,130 | \$18,645,418 | \$20,823,210 | \$22,622,049 | 48.0%    |
| Overhead (indirect costs or F&A) returned to the college, department, or faculty member   | \$2,025,685  | \$2,257,167  | \$2,376,409  | \$2,406,916  | \$2,252,521  | 11.2%    |

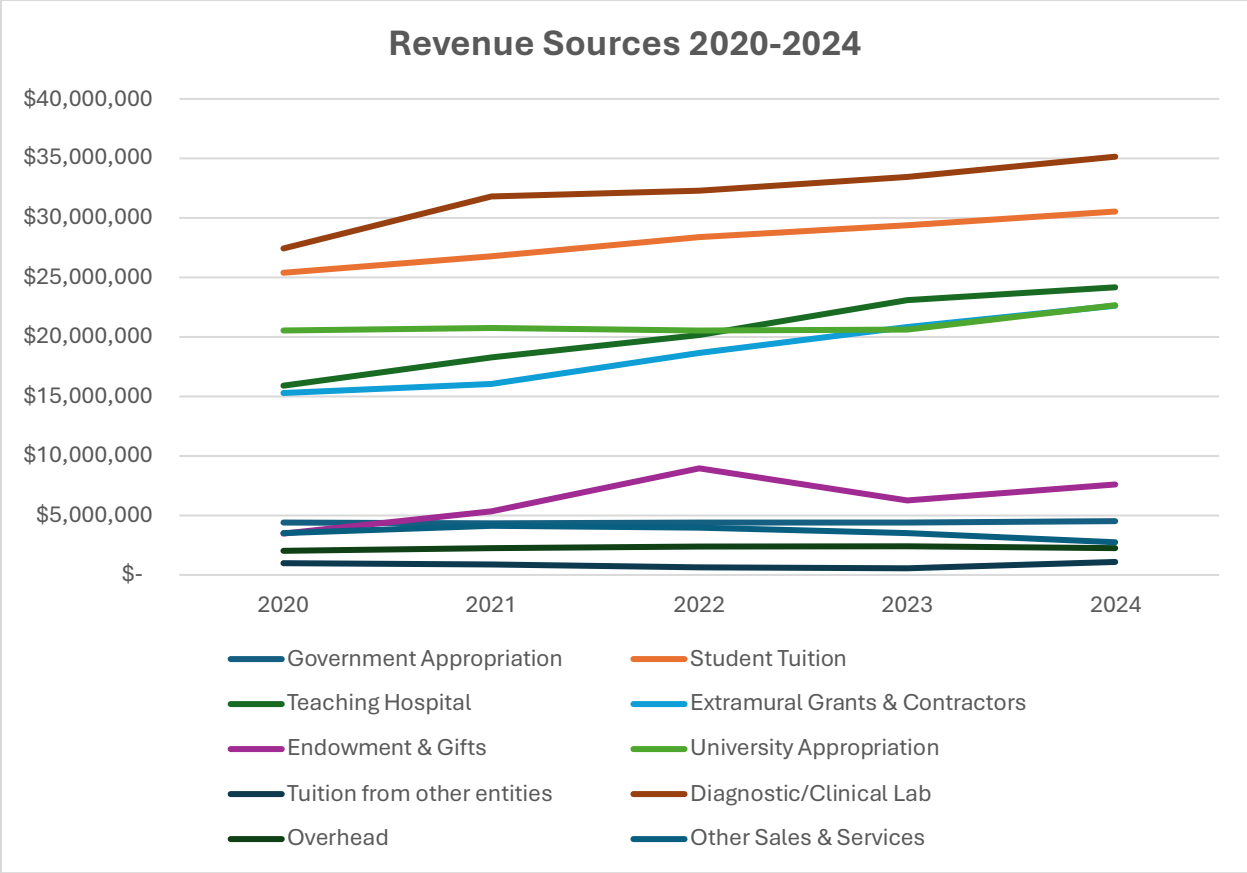
|  |               |               |               |               |               |        |
|--|---------------|---------------|---------------|---------------|---------------|--------|
| Current year gifts and endowment income  | \$3,470,147   | \$5,338,604   | \$8,956,810   | \$6,253,883   | \$7,591,569   | 118.8% |
| Other revenue (CE registration, certificate program enrollment, IP royalties, and other miscellaneous revenue) | \$3,523,244   | \$4,126,716   | \$3,960,704   | \$3,431,711   | \$2,744,459   | -22.1% |
|  |               |               |               |               |               |        |
| Total Revenue  | \$118,952,533 | \$130,594,919 | \$140,351,107 | \$144,365,583 | \$153,335,557 | 28.9%  |
|  |               |               |               |               |               |        |
| Funds carried forward from previous year (college, department, and faculty)                                    | \$4,763,362   | \$5,290,269   | \$6,560,962   | \$10,008,099  | \$5,466,309   | 14.8%  |

ENDOWMENT

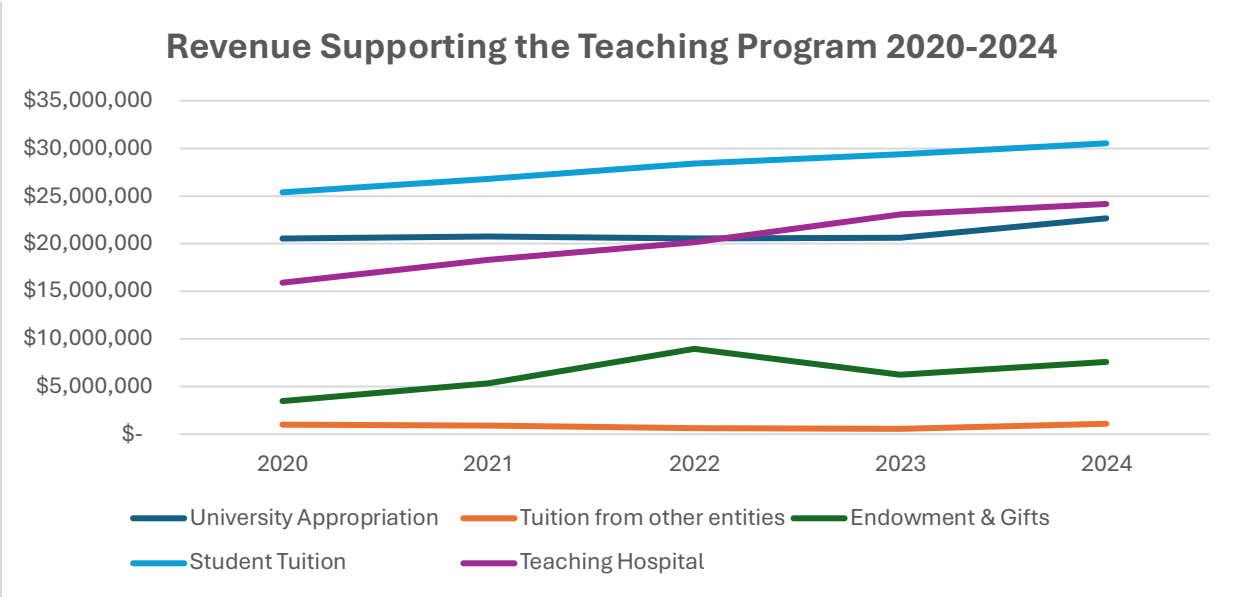
**TABLE C**

| Revenue                     | Fiscal Year  |              |              |               |                  | % change |
|-----------------------------|--------------|--------------|--------------|---------------|------------------|----------|
|                             | FY 2020      | FY 2021      | FY 2022      | FY 2023       | FY 2024          |          |
| True endowment market value | \$59,251,967 | \$93,959,143 | \$95,976,683 | \$101,723,946 | \$113,540,900.00 | 91.6%    |

**2.2. Comment on the strengths and weaknesses in revenues over the past five years.** Overall, revenue grew nearly 29% (more than \$34 million), between FY2020 and FY2024, with strong (percentage-wise) growth in most areas, including teaching hospital revenue, grants and contracts, gifts and endowment income, diagnostic lab, and tuition. University appropriations increased approximately 10%, with most of that increase occurring between 2023 and 2024. Government appropriations to the college remained relatively static. “Other Revenue” declined in 2024, largely because IVS (Iowa Veterinary Specialties) finished paying off a loan to the college in 2023. Overall, revenue continues to be strong, and the college is well-positioned to support its educational mission.



**Figure 2.3.1 – Revenue sources over time**



**Figure 2.3.2. Revenue sources primarily supporting the teaching program over time**

## Finances, UNL PPVM

**Table D. UNL Finances:** A broad summary of finances for UNL is shown in the table below.

| <b>Fiscal Year</b> | <b>PPVM Total Budget</b> | <b>% State Funded</b> | <b>% Tuition Dollars</b> | <b>Total Expenditures</b> |
|--------------------|--------------------------|-----------------------|--------------------------|---------------------------|
| 2024               | \$2,567,574              | 46%                   | 54%                      | \$2,281,089               |
| 2023               | \$2,577,723              | 49%                   | 51%                      | \$2,272,490               |
| 2022               | \$2,444,920              | 46%                   | 54%                      | \$2,117,593               |
| 2021               | \$2,361,131              | 46%                   | 54%                      | \$1,858,284               |
| 2020               | \$2,330,058              | 45%                   | 55%                      | \$2,074,025               |

**Research expenditures at UNL:** In FY 24, the SVMBS has total research expenditures of \$8,085,953. Institutional expenditures were \$5,404,662; federal expenditures were \$1,856,978; industry, board, and other expenditures were \$824,313.





STANDARD 3  
PHYSICAL FACILITIES  
AND EQUIPMENT



## STANDARD 3. PHYSICAL FACILITIES AND EQUIPMENT

**3.1. Provide a brief description of the major functions of, or activities that take place in the facilities used by the college in fulfilling its mission.**

### **ISU College of Veterinary Medicine Campus, Ames, IA**

**The College of Veterinary Medicine (CVM)** main building includes Patterson Hall, which functions as the primary instructional building and houses major classrooms, a library, study areas, numerous seminar and meeting rooms, a commons area and café, research laboratories, faculty and staff offices, administrative offices, the necropsy laboratory, and other support services. In addition to housing Patterson Hall, the main college building complex also includes the Lloyd Veterinary Medical Center (LVMC), portions of the Veterinary Diagnostic Laboratory (VDL), and a major portion of the Laboratory Animal Resources (LAR) animal housing area.

**The Lloyd Veterinary Medical Center (LVMC)** is an American Animal Hospital Association (AAHA) and Veterinary Emergency & Critical Care Society (VECCS) Level 2 accredited veterinary facility that processes over 25,000 patient visits annually. The LVMC consists of separate small and large animal clinical spaces and shared supporting service areas such as diagnostic imaging and clinical pathology. The LVMC is the primary teaching hospital for student learning. The LVMC facility includes 1) the small and large animal hospitals, 2) faculty and staff offices for the departments of Veterinary Clinical Sciences (VCS) and Veterinary Diagnostic and Production Animal Medicine (VDPAM), 3) the Veterinary Pathology (VPTH) clinical pathology laboratory, offices, and teaching laboratory, 4) the clinical skills teaching laboratory, and 5) research laboratories.

**The Veterinary Field Services Building (VFS)** supports food animal, camelid and equine ambulatory services and includes field service staff offices, laboratories, a pharmacy, and housing for vehicles.

**The Equine Performance Evaluation Facility (PEF) and Farrier Station** is an indoor facility adjacent to the LVMC with an indoor equine riding arena and farrier shop. Farrier services and education are provided by a certified journeyman farrier who is a full-time hospital employee.

**The Veterinary Diagnostic Laboratory (VDL)** is an American Association of Veterinary Laboratory Diagnostics (AAVLD) accredited laboratory. This facility includes areas for sample accessioning and processing (including pathology, microbiology, serology, and toxicology), benchtop laboratories, personnel offices, seminar rooms, and teaching areas. The VDL utilizes 30 faculty (from the academic department VDPAM) and 155 technical staff to offer comprehensive diagnostic services, processing over 120,000 diagnostic submissions and conducting 1.7 million diagnostic assays each year for livestock and poultry producers and pet owners. Electronic case records are retrievable and used in teaching and investigative research.

### **Research related facilities**

In addition to multiple research facilities within the main CVM building, the college uses the following: 1) The Freezer Facility at Veterinary Medical Research Institute (VMRI) houses ultralow and liquid nitrogen freezers to store irreplaceable biological, clinical, and diagnostic samples in a secure location; 2) The Livestock Infectious Disease Isolation Facility (LIDIF) is a Biosafety Level-2 (BSL2) facility for livestock research with LAR staffing and offices. It is managed by the Vice President for Research (VPR) and used extensively by the CVM; 3) Building 40 and Building 29 have animal housing for rodents and small domestic species and small livestock, respectively, and are managed under the VPR; and 4) The Animal Biosafety Level-3 (ABSL-3) modular facility, 760 gsf, attached to the existing BSL-3 laboratory, is used to address new strategies to prevent and control foreign animal and zoonotic diseases.

## **UNL Professional Program in Veterinary Medicine (PPVM), Lincoln, NE**

The primary instructional spaces for the PPVM are located in the Veterinary Medicine and Biomedical Sciences Hall (VBS), the VBS Annex (VBSA), the Nebraska Veterinary Diagnostic Center (NVDC), and the Animal Sciences Complex (ASCI) located on the East Campus of the University of Nebraska-Lincoln. These facilities are used to provide didactic and laboratory teaching experiences for first- and second-year students. The majority of PPVM classes are held in four different classrooms (VBS 103, VBS 145, NVDC 101, ASCI D104) and four different teaching laboratories (VBSA 123, VBSA 128, NVDC 114, ASCI D116). A Clinical Skills Laboratory located in VBSA houses numerous models and equipment to support clinical skills instruction during required or elective courses, as well as student practice outside of class.

### **3.2. Provide an area map that indicates the principal facilities of the college. Describe distance and travel time to off-campus facilities.**

ISU - (see Appendix 3.2.1); UNL - (see Appendix 3.2.2)

### **3.3. Describe the college's safety plan and facilities management plan including mechanisms documenting compliance.**

ISU:

#### **Entities with a role in policy and oversight related to safety, facilities management and/or compliance:**

**Environmental Health and Safety (EHS)** is the university-wide health and safety division that provides training for faculty, staff and students as well as monitoring. EHS has responsibility in all areas of safety including fire, biological, chemical/biohazards, animal, emergency management, and radiation. Periodic fire drills are performed by EHS.

**The Institutional Animal Care and Use Committee (IACUC)** reviews and approves animal care and use protocols in all teaching and research settings, with the exception of the care of client-owned animals in the hospital. IACUC review ensures humane care and use and ensures compliance with guidelines and regulations.

**The Institutional Biosafety Committee (IBC)** reviews, approves, and issues a biohazardous materials use authorization for any teaching or research project that involves biosafety hazards including recombinant or synthetic nucleic acid molecules, human or animal pathogens, biological toxin, and similar potential biohazards.

**The LVMC Infectious Disease Control Committee** establishes and reviews infectious disease protocols for the LVMC.

**The College Safety Committee** reviews safety-related issues for the college that are outside the scope of the above committees, and provides recommendations to the CVM Cabinet.

#### **Safety Plan and Compliance:**

The college's detailed safety-related plan and related documents can be found under the "Safety" tab in the CVM's intranet (VetZone) and includes protocols such as general building safety, response to injuries/accidents, animal-human safety protocols, rabies suspect handling, biosecurity, and emergency response. The college has a 20-year facilities plan which is maintained and regularly reviewed with ISU

Facilities Planning and Management (FP&M). This plan can be made available to the Site Visit Team upon request. Highlights of the college's safety and facilities management plans as they relate to student safety are described in the following paragraphs.

**Formaldehyde monitoring** in the Biomedical Sciences (BMS) anatomy laboratory is supervised by anatomy faculty working with EHS. Formaldehyde monitoring is done annually by placing ATI passive diffusion badges on CVM students, analyzing the badges, and providing a report. For the last 10 years, the formaldehyde levels have been below the required OSHA level and below the American Conference of Governmental Industrial Hygienists (ACGIH) ceiling of <0.3ppm. Faculty, technicians, and staff who spend a substantial amount of time in the Veterinary Pathology (VPTH) necropsy laboratory and/or histopathology laboratory are also monitored by EHS.

**Radiation safety protocols** in the diagnostic imaging unit requires that faculty staff, and students involved in radiography, fluoroscopy, and nuclear medicine are monitored via dosimetry badges. Every radiology technologist and faculty member involved in the radiology section wears three dosimeter badges: one on their collar, one at their waist, and one on their finger. Students wear one badge whenever they use radiology equipment on any LVMC rotation. Dosimeter badges are checked every three months to monitor the amount of radiation. Pregnant people also wear a fetal badge that is checked monthly. The radiology department operates under the time, distance, shielding, and ALARA (as low as reasonably achievable) principles to keep exposure to a minimum. Personal protection equipment includes lead aprons, lead gloves, thyroid shields, and lead shields. Training for laser safety occurs via EHS. Students participating in off-site clinical learning experiences are encouraged to make every effort to avoid radiation exposure. Students participating in a preceptorship for which the educational purpose is to gain additional experience in Diagnostic Imaging, or for which participation in radiograph acquisition or fluoroscopy procedures is integral to the educational experience, must provide a copy of the radiation safety protocols at the preceptorship site as part of the preceptorship application process (prior to program approval). Preceptorships involving diagnostic imaging will not be approved unless the preceptorship location's radiation safety protocols are documented to be consistent with ISU EHS guidelines. If the student will be directly involved in image acquisition, the student must utilize a dosimeter badge from the preceptorship location that meets the requirements of the state where the preceptorship site is located. The site will report any radiation exposure to the student after badges are checked. If the student is notified of exposure, the student will inform ISU EHS for further consultation.

**CVM building access** is controlled via card access for all external and some internal doors. The main college entrance has a check-in system with visitor badges. Campus Safety Ambassadors (CSAs), who are student employees of the ISU Police Department, patrol the facilities after hours and on weekends.

**Controlled drugs.** Four licensed pharmacists oversee the LVMC Pharmacy which includes a HEPA filtered unit for compounding. The disposition (including administration waste and return) of all controlled drugs in the LVMC must be documented on either the General Anesthesia Record for both Small and Large Animal surgical services, or the Controlled Drug Disposition Record (CDDR) for Controlled Substances used for inpatient hospital use outside of anesthesia. Both records are retained in the patient's electronic medical record. The CDDR is produced automatically when a transaction for a controlled substance for inpatient use is executed at the pharmacy or at an Omnicell. There are five Omnicell units with electronic password/finger print ID log in and tracking dispensary capabilities are used for drug dispensing throughout the LVMC and Field Services. The Food Animal Field Services unit obtains pharmaceuticals through University-approved suppliers. Controlled substances are assigned a log number upon arrival to track usage and are locked and maintained under regulatory compliance. Audits of controlled drugs occur twice per year. Controlled substances carried in ambulatory vehicles are kept in a lockbox that is secured to vehicle such that it cannot be removed. Only faculty have the keys to access lockboxes.

**Chemotherapeutic and cytotoxic drugs.** Chemotherapy in the LVMC is prepared by the pharmacy in a laminar flow hood used exclusively for hazardous drug preparation that is separated by an ante-room from the rest of the pharmacy. Students are not allowed to handle chemotherapy or to help with administration. Chemotherapy is administered in a dedicated room within the oncology suite; students may watch chemotherapy administration from one of several observation windows. Staff, faculty, and house officers who handle chemotherapy as part of their job description are trained yearly and follow the national USP 800 guidelines (SOPs available on request). Hazardous drug surface testing is completed every 6 months.

**Research laboratories.** Principal investigators and laboratory managers are responsible for safety procedures in their laboratories. There are annual inspections of research laboratories by the university EHS department to determine compliance with safety and health standards and regulations. Chemical and biological hazard disposals follow university protocols, and annual certifications are conducted of biological safety cabinets and chemical exhaust hoods.

**Emergency power** has been installed to provide back-up power, reduce power fluctuations and implement monitoring and security systems for all CVM facilities.

**Other safety maintenance,** including monitoring and service of fire extinguishers and safety showers, is performed by EHS on a routine basis. Reports can be made available upon request.

#### **UNL:**

**Formaldehyde monitoring** is performed by Environmental Health and Safety (EHS) on an annual basis to ensure levels are compliant with OSHA standards. Downdraft tables are used to help ensure that formaldehyde levels do not exceed acceptable standards.

**Animal instruction and housing:** All teaching laboratories undergo annual audits by EHS. On-campus spaces used for animal instruction or housing undergo an audit every three years by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC). Teaching activities involving animals are approved by the Institutional Animal Care and Use Committee (IACUC). During orientation, veterinary students receive biosafety training from EHS and training on the use of animals in teaching and research from the Institutional Animal Care Program (IACP).

**Controlled substances:** At the UNL campus, controlled substances are received by the Institutional Animal Care Program (IACP) office and are transferred to the requesting faculty member for transport to the VBSA. Transport involves two individuals (the faculty member and one technician) using a portable lockbox and driving to the VBSA from the IACP office (0.5 miles). The same procedure is used to transport expired drugs to the IACP. Once in the VBSA, controlled drugs are stored in a multi-lock drug storage box in the surgery teaching laboratory. Both this laboratory and the adjacent hallway have keycard readers and access to these spaces is limited to designated faculty, staff, and students. The keys to the lockboxes are kept in the desk in the faculty member's office, which is kept locked so only the faculty member is able to access the lockbox keys. Controlled drug logs are maintained to track inventory, use, and waste. A complete inventory audit is performed twice per year.

At the Great Plains Veterinary Educational Center (GPVEC), controlled substances are kept in the locked pharmacy inside a locked metal cabinet. When needed, drugs are carried by a veterinarian directly to the animal or to a lockbox in an ambulatory vehicle for transport. Lockboxes are secured within the vehicle and are not removable. Any unused drugs are returned to the pharmacy lockbox for storage. Keys to pharmacy and truck lockboxes are kept in the personal possession of veterinarians and technicians and are not available to students. The controlled drug cabinet in the pharmacy is code-access. The code is only communicated to GPVEC personnel and is not shared with students. Controlled drug logs used to track

inventory, use, and waste are kept inside the locked cabinet. Log checks are performed weekly by a technician and double-checked at non-scheduled times by a veterinarian.

No controlled drugs are used by UNL faculty or students at the Capital Humane Society (CHS). Storage of drugs occurs outside of areas where students have access. Controlled drugs are stored in a safe accessible only by CHS staff veterinarians.

### ***3.4. Describe how safety and facilities plans are managed and reviewed at all off-campus required training sites.***

The Capital Humane Society (Lincoln) is a required site for all students attending the PPVM. Small groups of four or less students visit the CHS one afternoon per week for approximately four hours. Students are under the supervision of at least one UNL faculty member throughout the entirety of their visit. UNL faculty and students have only limited access to CHS facilities. When they arrive at the CHS Admissions and Assessment Center, they are escorted by a staff member through the reception area and the employee office area to the examination/treatment room where they will be working. This room is fully equipped for small animal examinations and minor medical procedures (e.g. vaccination, blood collection, ear cytology, skin scrapes). A CHS employee (e.g., staff veterinarian, technician) brings animals to the examination/treatment room and returns them to the dog kennels and animal holding rooms when they are finished.

Off-campus training sites owned and operated by the University of Nebraska-Lincoln (the Great Plains Veterinary Educational Center (GPVEC) and Iowa State University (the ISU Dairy Science Farm, Beef Teaching Farm, and Beef Nutrition Farm) are under the jurisdiction of university EHS at each respective university, and safety and facilities plans are managed by each respective university.

### ***3.5. Describe the adequacy of facilities (pertains to all facilities used by the college whether on-campus or off-campus).***

#### **ISU CVM Campus**

##### **Used for required experiences or by 20% or more students**

**Patterson Hall** is over 187,000 nsf with updated IT capable classrooms equipped for laptop use and lecture capture. Modern teaching laboratories are used for teaching histology, microbiology, pathology, clinical pathology, parasitology, microbiology, surgery, and anesthesia, and modern VPTH and VDL necropsy floors are used in pathology instruction. The college also includes study rooms, a library complex, a commons area, and a café served by ISU Dining. Additional space for offices, study areas, and research laboratories would be beneficial.

**The Lloyd Veterinary Medical Center (LVMC)** includes a Large Animal Hospital, Small Animal Hospital, and supporting services. The Large Animal Hospital, completed in 2008, is 123,818 gsf and includes client receiving, animal receiving, food animal holding and surgery areas, equine holding areas, examination and treatment rooms, an equine induction and recovery area, equine surgery suites, an equine ICU, an isolation wing, and student rounds/work rooms. A 2,700 gsf bovine-camelid area provides additional stalls for ruminant (8) and camelid (4) inpatients and outpatients. The Hixson-Lied Small Animal hospital and associated office suite (121,481 gsf) was completed in 2012 with client reception, examination rooms (22), treatment rooms, animal housing, small animal ICU, pharmacy, VPTH Clinical Pathology laboratory, anesthesia induction and recovery area, surgical suites, dental suites, isolation facility,

rehabilitation area, animal holding areas, and student rounds rooms. The Diagnostic Imaging suite is centrally located between the small and large animal hospitals and includes digital X-ray, ultrasound, computed tomography, magnetic resonance imaging, and nuclear scintigraphy. Additional advanced imaging and diagnostic equipment, including echocardiography, C-arm for fluoroscopy/angiography, and stereotactic radiation therapy, are located within individual service areas. The office suite includes faculty offices (39), departmental administration offices (6), conference rooms (4), and work rooms (2). Facilities are modern and well designed. Increased faculty hiring has increased the need for office space.

### **Veterinary Field Services (VFS) Building**

The ISU Veterinary Field Services (VFS) unit was recently renovated (2021), adding 4,500 sq ft. This project provided an additional classroom, large work room, offices for faculty and residents, and storage space for class and field-based research support.

**The Primary Clinical Skills Laboratory** is housed in the small animal hospital with keypad access to 1,452 nsf of space. It contains teaching models and simulators, ultrasound machines, anesthesia equipment, GoPro® cameras and web cams for self-recording, space for large demonstrations, a mobile camera boom, and lecture capture. The Clinical Skills Laboratory is staffed by a full-time staff member.

### **The Large Animal Clinical Skills Laboratory**

The large animal clinical skills laboratory is housed in the Veterinary Field Services building with security card access at the door to the building and keypad access to the lab. The lab contains numerous teaching models and simulators focused on essential clinical skills for large animal veterinarians, including reproductive tract palpation, laparoscopic artificial insemination, euthanasia, castration, and blood collection.

#### **Used for elective experiences and less than 20% of students**

**The ISU Veterinary Diagnostic Laboratory's (VDL)** sustained trajectory of growth in diagnostic service revenues realized over the past ten years has enabled the VDL to reinvest for continual improvement in capabilities, capacity, quality and scope of diagnostic services provided to the \$32.6 billion animal agriculture industry in Iowa. The VDL footprint has expanded from 48,600 nsf to over 59,500 nsf of lab/office space in the past ten years. A new \$75 million building project was completed in Spring 2024. The new building includes approximately 90,000 gsf of essential program space and 11,000 gsf of basement. Planning is complete and construction will begin in Spring/Summer of 2024 on the \$66.5 million, Phase 2 addition to the new lab containing approximately 79,000 gsf scheduled for completion in 2026.

### **ISU Campus (College of Agriculture and Life Sciences)**

#### **Used by 20% or more students**

**The ISU Dairy Science Farm (Ames, IA)** is a modern dairy operation located approximately three miles from the Vet Med campus that milks approximately 400 cows year-round in a double-12 milking parlor. Approximately 200 DVM students per year visit the dairy to provide examinations and treatments for cows and young stock, including some students participating in a palpation elective offered to VM2-3 students, and some participating in clinical rotations.

**The ISU Beef Nutrition Farm (Ames, IA)** includes a modern open-front, 60-pen feedlot, a 7-pen feedlot with an electronic feed intake management system, and a 16-pen open-front feedlot. All pen sizes are adequate for up to six animals. There are 120 acres of improved pasture available for grazing research and several small open lots with fence line feed bunks. A modern, indoor animal handling facility, feed mill and

indoor and outdoor feed storage structures are present. Students (approximately 35-40/year) in the beef feedlot production medicine (VDPAM 7483) and the advanced cow-calf production medicine (VDPAM 7481) courses utilize this farm. The VFS unit provides healthcare services to this farm which involves VM4 students on the Food Animal and Camelid Field Service rotation (VDPAM 7476).

**The ISU Beef Teaching Farm (Ames, IA)** includes a modern cattle handling chute within a heated building. A cattle collection area just outside of the building with a tub and alley way makes it easy to funnel cattle into the chute for processing, herd health, or treatment. Students (approximately 35-40/year) in the beef feedlot production medicine (VDPAM 7483) and the advanced cow-calf production medicine (VDPAM 7481) rotations utilize this farm. The VFS unit provides healthcare services to this farm which involves VM4 students on the Food Animal and Camelid Field Service rotation (VDPAM 7476).

#### **Used by fewer than 20% of students**

**The ISU Sheep Teaching Farm (Ames, IA)** consists of approximately 200 mature ewes and is comprised of three different production systems: a flock of Hampshire and Suffolk cross ewes, a registered Hampshire flock, and a 100-head commercial white face flock. Students (approximately 24/year) utilize this farm on the Advanced Small Ruminant Production Medicine rotation (VDPAM 7495). The VFS unit provides healthcare services to this farm which involves VM4 students on the Food Animal and Camelid Field Service rotation (VDPAM 7476).

**ISU Swine Teaching and Research Farms (Ames, IA)** There are three main swine farms that provide teaching opportunities and are serviced by veterinarians from our Swine Medicine Education Center (SMEC, described in Section 4.3.) and ISU CVM VFS unit. These sites balance functions of research, teaching, and production. All three sites are inspected every six months by the ISU Institutional Animal Care and Use Committee (IACUC). A weekly conference call to review health, research schedules, and biosecurity priorities is conducted between ISU CVM veterinarians, the University Veterinarian and other stakeholders. Approximately 35 students/year take advantage of the VDPAM SMEC rotations that include VDPAM 7478A (Swine Production Management and Consultation), 7478B (Clinical Pharmacology and Treatment Management), 7478C (Emerging Disease Diagnosis and Management), and 7480 (Swine Production Medicine).

#### **UNL Campus**

**The Veterinary Medicine and Biomedical Sciences (VBS) Building and Annex** include over 33,000 and 15,000 square feet of useable space, respectively, that houses classrooms, laboratories, shared equipment and prep rooms, walk-in coolers, storage space, meeting rooms, and office space for faculty, staff, post-doctorates, and graduate students. The administrative office for the School of Veterinary Medicine and Biomedical Sciences is housed within the VBS building, as are two classrooms that seat 54 and 58 students. Within the VBS building and annex are three meeting rooms and two lounge/kitchen/vending areas that are available for student study or relaxation. The annex also houses clinical teaching laboratories for general clinical skills, small animal examination, small animal surgery, and radiology.

**The Nebraska Veterinary Diagnostic Center (NVDC)** has nearly 35,000 square feet of useable space that houses a classroom, a teaching laboratory, meeting rooms, storage space, and office space for faculty, staff, post-doctorates, and graduate students, in addition to space dedicated specifically to diagnostic work. The classroom seats 60 students and has an attached kitchen/vending area. The BSL-2 teaching laboratory has bench space for 32 students and is equipped for teaching histology, histopathology, microbiology, and parasitology. Students also have access to two meeting rooms for studying or relaxation.



**The Animal Science Complex (ANSC)** includes dedicated teaching spaces for the PPVM, including a classroom, a teaching laboratory, and storage space. The classroom seats 36 students and the anatomy laboratory has working space for 28 students. Other spaces in ANSC are available for large animal teaching, including the arena (equine examinations) and cattle handling facilities (bovine examinations).  
Off-Campus Learning Sites (ISU and UNL)

All off-campus facilities used by our professional educational program are fully adequate to support student learning and safety, and are briefly described below:

#### **Facilities utilized by 20% or more of students, or for a required experience**

**The Capital Humane Society (Lincoln, NE)** is used for small animal clinical skills instruction at UNL. Small groups of second year students visit the CHS Admissions and Assessment Center each week to work with cats, dogs, and small mammals. Under supervision of UNL faculty, students conduct physical examinations and minor procedures in an examination/treatment room dedicated for these tasks. This room also serves as a secondary surgery suite when students are not present.

**The Great Plains Veterinary Educational Center (GPVEC) (Clay Center, NE)** provides clinical experiences for 12 VM4 rotation courses (VDPAM 7421A-T), including beef cow-calf, beef feedlot, sheep production medicine, swine production medicine, and equine dentistry. First year students at UNL also visit GPVEC for a one-week production animal immersion experience. The GPVEC provides clinical education to ISU CVM veterinary students through a cooperative agreement between ISU, UNL, and the US Meat Animal Research Center (USMARC). The USMARC consists of over 34,000 acres near Clay Center, NE and presently includes approximately 8000 cows/heifers and their offspring, a 6400-head capacity beef feedlot, 2000 ewes and their offspring, 500 sows with 950 litters of pigs farrowed per year, and 35 head of working horses. The GPVEC building has over 21,000 square feet of useable space that houses research and teaching laboratories, storage space, an attached garage, a classroom, meeting rooms, a reference room, offices, and student dormitories. The classroom seats 30 students and the five dormitory suites house 4-6 students each, with a maximum occupancy of 27. The teaching laboratories include spaces for demonstration of large animal clinical skills and a necropsy facility.

#### **Facilities hosting fewer than 20% of students and not part of a required experience**

**Iowa Veterinary Specialties (IVS)** (Des Moines, IA). IVS is a 16,100 ft<sup>2</sup> ISU-affiliated emergency and specialty small animal practice that hosts veterinary students in mentored summer clinical programs, and VM4 students in clinical preceptorship rotations including emergency medicine and exotics.

**Shelter Medicine Facilities** consist of five major shelters used for VM4 preceptorships:

Wayside Waifs Inc., Kansas City, MO: <https://waysidewaifs.org/> (24-36 students per year)

Nebraska Humane Society, Omaha, NE: <https://www.nehumanesociety.org/> (8-15 students per year)

Capital Humane Society, Lincoln, NE: <https://www.capitalhumanesociety.org/> (4-9 students per year)

Humane Society of Boulder Valley, Boulder, CO: <https://www.boulderhumane.org/> (2-7 students per year)

Humane Alliance, Asheville, NC: <https://www.aspc.org/aspc-spay-neuter-alliance> (4-17 students per year)

**The Blank Park Zoo** (Des Moines, IA) is a 49-acre facility accredited by the Association of Zoos and Aquariums (AZA). The zoo houses a collection of over 800 wild and exotic animals across major taxa. The zoo hosts VM4 students in clinical preceptorship rotations in zoological medicine.

***3.6. For safety and educational purposes, protocols must be posted in the isolation facilities and the facilities must be used for instruction in isolation procedures (biocontainment).***

The CVM Infectious Disease Control Committee primarily focuses on creating, reviewing and implementing recommendations of infectious disease protocols for the LVMC and related college areas. Protocols are found in student manuals, hospital operational manuals, and online. Posted protocols are located at each high-risk area. Protocols for use of isolation units are posted in those areas. Students are trained in isolation procedures and practice those procedures under supervision in the small and large animal hospital facilities. Orientation occurs the first day of each LVMC rotation wherein students are instructed regarding processes, safety, and procedures specific to each rotation. VM4 Student Handbooks with procedures are also posted within Canvas, the online Learning Management System.

**3.7. Describe current plans for improvement.**

Construction began Spring of 2024 on the \$66.5 million, Phase 2 addition to the new Veterinary Diagnostic Lab (VDL) containing approximately 79,000 gsf scheduled for completion in 2026. When the VDL is completed, the current area occupied by the VDL will be repurposed for instruction, research, and other purposes.

**Standard 3: Appendices**

Appendix 3.2.1. - Area Map (ISU) with principal facilities of the college



**Veterinary Medicine Teaching Facilities**

- A Dairy Science Farm  
52470 260th St., Ames, IA  
8 minutes, 3.3 miles
- B Beef Teaching Farm  
3725 S. State Ave., Ames, IA  
6 minutes, 3 miles
- C Beef Nutrition Farm  
3405 N. Dakota Ave., Ames, IA  
13 minutes, 6.9 miles





Appendix 3.2.2 - Area Map (UNL) with principal facilities of the college



**Institute of Agriculture and Natural Resources Facilities**

**A Capital Humane Society**  
2320 Park Blvd., Lincoln, NE  
16 minutes  
5.5 miles from UNL

**B Great Plains Veterinary Educational Center**  
NE-18D Spur, Clay Center, NE  
1 hour 35 minutes, 97.9 miles from UNL







STANDARD 4  
CLINICAL RESOURCES

## STANDARD 4. CLINICAL RESOURCES

ISU

**4.1. Complete Tables A, B, C, D, E, F, and G, if applicable, for the past five years and analyze trends for each species (category). Include only those patients, farm call, and animals examined that have direct student involvement.**

**Table A - Clinical Resources – on-campus facilities**

| Species        | 2019-2020 |       | 2020-2021 |       | 2021-22 |       | 2022-23 |       | 2023-24 |       |
|----------------|-----------|-------|-----------|-------|---------|-------|---------|-------|---------|-------|
|                | Visits    | Hosp  | Visits    | Hosp  | Visit   | Hosp  | Visits  | Hosp  | Visits  | Hosp  |
| Canine         | 13,567    | 5,052 | 15,769    | 6,099 | 16,431  | 5,554 | 17,057  | 5,425 | 16,152  | 4,933 |
| Feline         | 2,724     | 1,336 | 3,444     | 1,766 | 3,693   | 1,603 | 3,516   | 1,391 | 3,513   | 1,427 |
| Bovine         | 1,097     | 1,087 | 1,218     | 839   | 1,095   | 800   | 961     | 671   | 956     | 672   |
| Small Ruminant | 831       | 775   | 758       | 198   | 734     | 150   | 619     | 158   | 490     | 200   |
| Equine         | 1979      | 1,952 | 2,314     | 1,875 | 3,820   | 1,433 | 3,874   | 1,684 | 3,807   | 1,623 |
| Porcine        | 52        | 48    | 68        | 63    | 41      | 26    | 35      | 28    | 24      | 22    |
| Caged Birds    | 77        | 15    | 4         | 4     | 14      | 9     | 5       | 3     | 4       | 4     |
| Caged Mammals  | 142       | 68    | 43        | 28    | 15      | 11    | 21      | 13    | 24      | 22    |
| Wildlife       | 0         | 0     | 0         | 0     | 0       | 0     | 0       | 0     | 0       | 0     |
| Zoo Animal     | 7         | 0     | 0         | 0     | 0       | 0     | 28      | 1     | 57      | 3     |
| Other          | 195       | 26    | 151       | 64    | 119     | 45    | 57      | 43    | 77      | 39    |

**Trend analysis -- Teaching Hospital.** The overall trend in patient visits increased 21% over all species areas during the 5-year reporting period, with number of hospitalized cases remaining relatively stable. Overall, case numbers are providing students with strong hands-on clinical experiences and educational activities over a wide variety of species.

**Table B - Clinical Resources – college owned and operated off-campus facilities**

| Species        | 2019-2020 |      | 2020-2021 |      | 2021-22 |      | 2022-23 |      | 2023-24 |      |
|----------------|-----------|------|-----------|------|---------|------|---------|------|---------|------|
|                | Visits    | Hosp | Visits    | Hosp | Visit   | Hosp | Visits  | Hosp | Visits  | Hosp |
| Canine         | 5,623     | 0    | 6,214     | 0    | 9,324   | 0    | 7,198   | 991  | 5,095   | 719  |
| Feline         | 1,700     | 0    | 1,871     | 0    | 2,796   | 0    | 1,977   | 272  | 1,316   | 184  |
| Bovine         | 0         | 0    | 0         | 0    | 0       | 0    | 0       | 0    | 0       | 0    |
| Small Ruminant | 0         | 0    | 0         | 0    | 0       | 0    | 0       | 0    | 0       | 0    |
| Equine         | 0         | 0    | 0         | 0    | 0       | 0    | 0       | 0    | 0       | 0    |
| Porcine        | 0         | 0    | 0         | 0    | 0       | 0    | 0       | 0    | 0       | 0    |
| Caged Birds    | 17        | 0    | 46        | 0    | 60      | 0    | 78      | 0    | 49      | 0    |
| Caged Mammals  | 82        | 0    | 198       | 0    | 290     | 0    | 279     | 0    | 191     | 0    |
| Wildlife       | 0         | 0    | 0         | 0    | 0       | 0    | 0       | 0    | 0       | 0    |
| Zoo Animal     | 0         | 0    | 0         | 0    | 0       | 0    | 0       | 0    | 0       | 0    |
| Other          | 32        | 0    | 53        | 0    | 87      | 0    | 172     | 0    | 126     | 0    |

Note: The numbers provided are for Iowa Veterinary Specialties (IVS), which is a clinic owned by ISU but operated independently. IVS did not track the number of hospitalized patients by species until 2022-2023. The following total number of patients were hospitalized during earlier reporting periods: 2020-2021: 1,165; 2021-2022: 1,219.

**Trend analysis -- IVS.** Case numbers grew substantially between 2019 and 2021, when they peaked, with case numbers decreasing again by 2023 to levels similar to those seen in 2019. Overall, IVS case numbers are very adequate to supplement the student learning experience for students who visit there for learning opportunities.

**Table C - omitted. There are no required rotations at privately owned and operated off campus facilities.**

**Table D - Clinical Resources – college owned and operated ambulatory services**

| Species | 2019-20        |                     | 2020-21        |                     | 2021-22        |                     | 2022-23        |                     | 2023-24        |                     |
|---------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|
|         | 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  | -              | 7,099               | 98             | 5,460               | 1,460          | 6,851               | 1,120          | 6,324               | 1,355          | 6,198               |
| Caprine | -              | 406                 | 0              | 0                   | 50             | 462                 | 134            | 478                 | 363            | 971                 |
| Equine  | -              | 1,449               | 1,826          | 1,833               | 1,963          | 1,963               | 1,622          | 1,618               | 1,714          | 1,710               |
| Ovine   | -              | 177                 | 26             | 106                 | 63             | 477                 | 116            | 426                 | 220            | 387                 |
| Porcine | -              | 137                 | 23             | 90                  | 36             | 270                 | 96             | 324                 | 156            | 149                 |
| Other   | -              | 31                  | 19             | 9                   | 26             | 82                  | 20             | 61                  | 32             | 34                  |

Note: Prior to 2020-2021, VFS did not track the number of farm calls by species, and did not track the number of equine farm calls. For that reason, the number of farm calls is not reported for 2019-2020 in Table D. For species other than equine, there were 1216 total farm calls in 2019-2020.

**Trend Analysis – Ambulatory Services.** The number of bovine cases seen by our ambulatory service has decreased modestly over the reporting period, reflecting the urbanization of the areas serviced by our ambulatory clinic. Overall, however, ambulatory case numbers continue to be strong, and are more than adequate to support our teaching mission.

**Table E - omitted. There are no required rotations at private practice ambulatory services.**

**Table F - Herd/Flock Health Program (note: more detailed descriptions are provided in Section 3.5.)**

|                 | Describe your clinical resources for production medicine training by production group below |
|-----------------|---|
| Dairy           | ISU Dairy Science Farm (see Section 3.5)  |
| Beef Feedlots   | GPVEC, ISU Beef Nutrition and Teaching Farms (see Section 3.5)                              |
| Cow-Calf        | GPVEC, ISU Beef Nutrition and Teaching Farm (see Section 3.5)                               |
| Small Ruminants | GPVEC, ISU Sheep Teaching Farm (see Section 3.5), 4H  |
| Swine           | SMEC, ISU Swine Teaching and Research Farms (see Section 3.5)                               |
| Poultry         | ISU Poultry Farm, Hy-Line and other corporate partners                                      |
| Fish            | Fisheries, Iowa Department of Natural Resources   |
| Equine          | ISU Horse Farm, numerous local stables, GPVEC   |

|                       |   |
|-----------------------|---|
| Other (camelids, zoo) | Camelid private farms, preceptorships at multiple zoos, Zoo, Exotics, and Wildlife (ZEW) student organization |
|-----------------------|---|

**Note:** In addition to resources listed in this table, ISU has ambulatory services for all species above except fish; an aquatic expert and consultant is on the CVM faculty. Preceptorship opportunities exist for all listed species.

**Table G - Necropsy Table – Number of necropsies involving students (separated by Veterinary Pathology and the VDL – 9/5/2024)**

| Species           | 2019-2020 |     | 2020-2021 |     | 2021-22 |     | 2022-23 |     | 2023-2024 |     |
|-------------------|-----------|-----|-----------|-----|---------|-----|---------|-----|-----------|-----|
|                   | VPTH      | VDL | VPTH      | VDL | VPTH    | VDL | VPTH    | VDL | VPTH      | VDL |
| Canine            | 260       | 8   | 255       | 12  | 269     | 6   | 227     | 7   | 197       | 7   |
| Feline            | 127       | 2   | 113       | 4   | 112     | 2   | 95      | 5   | 90        | 2   |
| Bovine            | 49        | 8   | 48        | 10  | 72      | 8   | 55      | 8   | 55        | 15  |
| Caprine           | 20        | 1   | 13        | 5   | 14      | 8   | 16      | 1   | 9         | 3   |
| Equine            | 77        | 0   | 88        | 2   | 102     | 0   | 121     | 0   | 122       | 0   |
| Ovine             | 8         | 2   | 7         | 4   | 9       | 1   | 9       | 1   | 3         | 2   |
| Porcine           | 6         | 10  | 2         | 14  | 2       | 13  | 4       | 12  | 3         | 13  |
| Poultry (Avians)  | 0         | 2   | 0         | 0   | 2       | 0   | 2       | 0   | 1         | 0   |
| Other Birds       | 7         | 6   | 1         | 4   | 0       | 3   | 0       | 0   | 0         | 2   |
| Non-Avian Exotics | 19        | 1   | 15        | 2   | 3       | 2   | 2       | 1   | 8         | 1   |

**4.2. Describe and analyze the adequacy of normal and clinically diseased animals (hospitalized, outpatient, field service/ambulatory and production medicine) used by students in the course of their learning experience.**

**Years 1-3 (VM1-3)**

Students are first introduced to live animal interactions in the first semester of VM1 year in the Clinical Foundations I course (BMS 7339), where they perform canine handling and restraint, behavioral observations, physical examination, and phlebotomy, and are introduced to medical record-keeping. At the end of the VM2 year, students perform general anesthesia and feline neuters in the Principles of Surgery Lab (VCS 7394). The VM3 Junior Surgery Laboratory (VCS 7449) includes surgery, anesthesia, and community outreach components; all students examine at least 20 patients, perform at least six spay and/or neuter operations (minimum of two as the primary surgeon, two as assistant surgeon, and two as anesthetist), provide pre- and post-operative patient care, and complete medical records. Patients in the surgery laboratory come from local shelters and are not counted in the hospital or ambulatory animal counts provided above. During the Spring and Fall 2023 semesters, students in the VM2 and VM3 surgical laboratory courses evaluated, treated and performed surgery on 181 dogs and 361 cats (542 total). Additionally, VM2 and VM3 students can elect to take a 1-week large animal Clinical Foundations course (VDPAM 7340) where they spend one day each on farms experiencing handling and physical examination procedures and reviewing basic production standards for beef, dairy, swine, ovine, caprine and camelids. Students they can also participate in summer internship programs focusing on swine, dairy, or beef.



#### **Year 4 (VM4)**

The majority of live animal interaction for ISU CVM students occurs during VM4 clinical rotations, which occur primarily in the LVMC. While student experiences vary depending on their schedules and interests, all students are required to complete rotations in Primary Care, Small Animal Medicine, Small Animal Surgery, Equine (Medicine, Surgery or Field Services), Radiology, Anesthesiology, Intensive Care/Emergency Medicine, Food Animal Medicine/Surgery, and Necropsy/Clinical Pathology. In these required rotations, students are exposed to dogs, cats and horses, and a variety of production animal species. The number of cases seen vary by service and time of year, but provide students with regular opportunities to have primary responsibility for cases and to complete required clinical skills.

The majority of VM4 clinical experiences are overseen by the Veterinary Clinical Sciences (VCS) department. In terms of primary care experiences with small animals, the Primary Care Rotation exposes students to common small animal clinical problems focusing on preventive care procedures and promotion of health. The Primary Care service also provides exposure to nutrition, alternative medicine, dentistry, and elective surgery (primarily spay and neuter). Students are exposed to routine dental procedures (overseen by Primary Care faculty) as well as more complex referral-level dentistry (overseen by a board-certified dentist). Also included in each primary care rotation is a cadaver dentistry laboratory for students to practice scaling and polishing teeth, local blocks, and tooth extraction, as well as didactic lectures on common dental conditions and techniques. Because Primary Care is a required rotation, every student receives this training prior to graduation. For primary care experiences with horses, Equine Field Services sees common syndromes and health checks in horses in the field. The Equine Clinical Skills course provides hands-on experience with equine veterinary diagnostic skills related to theriogenology, medicine, surgery, radiology, and ophthalmology.

The LVMC has numerous specialty services that accept patients on a referral basis for secondary or tertiary care, all of which host VM4 clinical rotations (some required, some elective). Small animal specialty services include Small Animal Internal Medicine, Small Animal Surgery, Emergency and Critical Care, Rehabilitation and Sports Medicine, Cardiology, Dermatology, Oncology, Ophthalmology, and Theriogenology. The Emergency and Critical Care service offers 24/7 emergency care, including routine “walk-in” emergencies common in small animals (e.g. vomiting, toxicities, trauma, and respiratory distress). Equine services include Equine Internal Medicine, Equine Surgery, Theriogenology, and Farriery. Clinical support services develop additional student expertise in Anesthesia, Diagnostic Imaging, Clinical Pathology and Necropsy. Instruction is provided in specialty services primarily by AVMA board-certified specialists (Standard 8, Faculty) with additional case oversight from postgraduate trainees (interns and residents) in most services.

Production animal experiences in the VM4 year are provided by the Veterinary Diagnostic and Production Animal Medicine (VDPAM) department. VDPAM emphasizes creating practice-ready veterinarians by giving students numerous opportunities for physical examinations of sick and healthy animals. Practical teaching occurs in the rotational courses Food Animal & Camelid Medicine and Surgery (required of all students, and where they receive foundational clinical skills) and Food Animal & Camelid Field Services (elective). In the latter, students participate in an up-to-date, working ambulatory veterinary clinic involving the diagnosis and treatment of animals within the ISU farm system and private clients of the Veterinary Field Services Unit (VFS). For example, at the ISU Dairy Farm, students with faculty oversight examine over 1000 animals per year, both sick and healthy, in a lower stress environment without client interactions. In the Dairy Production Medicine rotation, students evaluate the entire operation, and learn the economics of preventative medicine and health improvement programs. Students learn that successful businesses are an outcome of successful veterinary care. For these rotational courses, after each examination, students must: 1) develop options for interventions and disease management or further diagnostics; 2) have a discussion with the clinician, and 3) develop a final diagnosis and treatment plan.

All cases from the LVMC provide teaching material for VM4 clinical rotations. Additionally, VCS- and VDPAM-approved preceptorships provide a variety of hands-on teaching experiences. Between 2022 and 2024, ISU CVM students participated in preceptorship experiences at more than 173 practices and/or universities, 29 zoos, and 28 shelter medicine locations. Additional elective hands-on educational experiences are provided through student organizations under veterinary faculty supervision, including shelter medicine outreach clinics, foal ICU, and foal and calf birth monitoring teams.

**4.3. Describe unique clinical educational resources or programs that enhance the educational mission.**

1) The LVMC is the flagship clinical teaching resource for ISU CVM, and our teaching hospital maintains a caseload that strongly facilitates student teaching in terms of both case numbers and type. For example, the small animal emergency service sees a variety of cases ranging from simple urgent care (gastroenteritis, laceration repair, feline urethral obstruction) to complex tertiary care (therapeutic plasma exchange, mechanical ventilation). Our specialty services also expose students to a wide variety of case complexity; for example, on the Small Animal Internal Medicine Service, students might participate in a new diagnosis of Cushing's disease as well as observe laser ablation for ectopic ureters. This provides an excellent substrate for teaching students interested in general practice, as well as inspiring and preparing students interested in specialty training and board certification. As the only comprehensive multispecialty veterinary practice in the state, the LVMC draws clients from across Iowa and surrounding states, and our clientele and referring veterinarians are understanding and supportive of our teaching mission.

2) ISU CVM offers a variety of small animal overpopulation medicine and surgery experiences. VCS 439X Community Outreach Elective Surgical Rotation is a new VM4 rotation that utilizes three primary animal shelters to provide patients for surgical procedures, physical exams, immunizations, treatments, disease surveillance, and behavioral evaluations. VCS 7305 Shelter Medicine is also offered to VM1-3 students as an elective course focusing on issues of relevance to companion animal population and shelter medicine and welfare. These opportunities all build on the required VM3 Junior Surgery Laboratory (VCS 7449), which also provides students with numerous experiences performing physical exams and other routine diagnostic and clinical procedures with shelter-owned animals. (See Section 9.2 for a more in-depth description of changes/improvements in this area.)

3) Communication instruction and assessment are integrated throughout the curriculum. Students participate in one standardized client communication experience in VM1 year, four experiences in VM3 year, and a video recorded self-assessed interaction with a client in the VM4 year during the required Primary Care Rotation.

4) Numerous student organizations provide seminars and hands-on experiences with internal or external experts to augment clinical education. These organizations are supported by faculty advisors, the ISU campus organization office, the CVM student organizations liaison, and IACUC (when appropriate).

5) There are several unique opportunities in swine education. In the Swine Veterinary Internship Program (SVIP), each year, 25-30 veterinary students gain extensive clinical and research experiences sponsored by VDPAM in partnership with several biopharmaceutical companies that help fund stipends to offset student cost. Additionally, the Swine Medicine Education Center (SMEC) is an active collaboration between ISU CVM and Audubon-Manning Veterinary Clinic Management Services LLC in Audubon, Iowa, an industry leader and advocate for sustainable livestock production that currently manages around 1.4 million pigs on 198 farms. As a distributed organizational unit, most of the observational and sample collection portions of SMEC training occurs on modern pig farms, constructed to employ current technology to meet and exceed the biological, health and welfare needs of the animals. SMEC provides access to management, veterinary, nutritional (formulation, ordering, and tracking of all diets), marketing, transportation/equipment, and

employee expertise, as well as support for animal welfare, environmental stewardship, and quality and traceability of meat products.

6) Beef Quality Assurance (BQA) programming is in the curriculum at several levels. For example, in Beef Records Analysis, students learn the issues and impacts due to errors such as poor injection site technique. The training results in BQA certification by the Iowa BQA Director through the Iowa Beef Industry Council. During the VDPAM Food Animal & Camelid Field Services and Food Animal & Camelid Medicine and Surgery rotations, BQA principles are applied and reinforced with both hospitalized and field service patients.

7) The Bovine Veterinary Internship Program (BVIP) matches veterinary students with companies sponsoring research-based summer internships. Students are provided training specific to the dairy and beef industry and study design, data collection techniques, and writing skills. At the conclusion students prepare an abstract for submission at a national meeting. Approximately 3-6 students participate each year.

***4.4. If off-campus clinical instruction sites are used regularly by multiple students, complete Table H and describe the planning, supervision, and monitoring of students; and contracting arrangements for non-institutional based faculty (Table I).***

See Tables H and I. As noted students are always supervised by PPVM faculty while at these off-campus facilities, and training/evaluation of faculty, assessment and student access to content experts are equivalent to those used for on-campus facilities.

***4.5. Describe the involvement and responsibilities of professional students in the healthcare management of patients (and clients) in clinical programs of the college.***

Students participating in VM4 clinical rotations in the LVMC are responsible for gathering and recording an accurate history from the owners, conducting the initial physical exam, formulating a problem list, reporting their findings for discussion to the clinicians on duty, discussing differential diagnoses, and developing a diagnostic and treatment plan. In production animal rotations, students must create treatment plans considering the legal use of medications in food animal species and withdrawal times.

Following development of a treatment plan, students are responsible for calculating accurate dosages of medications and performing patient treatment and client education. Routine procedures such as intravenous catheter placement, orogastric/nasogastric intubation, ultrasonography, and minor surgical procedures are directly performed by students whenever possible. Students scrub in on all major surgeries to allow them to assist in surgical procedures under strict supervision. Students are responsible for recording all activities related to the patient, writing integrated case summaries (i.e. discharge instructions), and whenever possible, communicating with clients.

At farm locations, student case interactions are the same as described above, including interactions between the student, client, and faculty member. When there are herd implications, students are asked to develop preventative herd health recommendations and/or standard operating procedures.

## Off-Campus Facilities

**Table H - Clinical Resources – off-campus facilities**

| HOSPITAL, CLINIC, SHELTER | REQUIRED ROTATION FULFILLED              | ROTA TION DURATION (WEEKS) | AVG NO. STUDENT S PER YR. | SURGERY Y/N | NECROPSY Y/N | CLIN PATH (Y/ON SITE, Y/OFF SITE, N) | IMAGING Y/N | ICU Y/N | ISOLATION Y/N | MOST RECENT ANNUAL CASELOAD BY SPECIES FOR THE FACILITY |        |        |         | NEW OR REINTRODUCED SITE |              |          |
|---------------------------|--|----------------------------|---------------------------|-------------|--------------|--------------------------------------|-------------|---------|---------------|---|--------|--------|---------|--------------------------|--------------|----------|
|                           |  |                            |                           |             |              |                                      |             |         |               | CANINE  | FELINE | EQUINE | BOVINE  |                          | SM RUM       | OTHER    |
| Capital Humane Society    | VM2 students at UNL                      | 4 x 4-hour visits          | 26-30                     | N           | N            | N                                    | N           | N       | N             | 84  | 112    | 0      | 0       | 30 -small mammals        | Existing     |          |
| GPVEC*                    | Menu of 12 1-week elective VM4 rotations | 1                          | 36                        | Y           | Y            | Y/ON SITE                            | Y           | N       | Y             | 0   | 0      | 35     | 3,600** | 250**                    | 300** -swine | Existing |

The college certifies that in their best judgement the required off-campus clinical sites meet the requirements of section 2.3.11

If a site is not a part of a required rotation, but at least 20% of the student body over the last 2 years have received instruction at this site, mark those facilities with an asterisk \*

\*\* Number includes necropsies

*Please provide a brief description of training and evaluation of faculty, levels of case management by the students, and assessment tools for measuring student progress for the remote site(s). Describe student access to content experts.*

**Table I - Off Campus Site Information**

| 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 |  |
| Capital Humane Society                                 | 4 hours              | 26                          | X                               | N/A supervisor/evaluator is CVM faculty | X  |    | X  |
| The Great Plains Veterinary Educational Center (GPVEC) | 1 week               | 36                          | X                               | N/A Evaluator is CVM faculty            | X  |    | X  |

**4.6. Describe how subject-matter experts and clinical resources are integrated into clinical instruction.**

In the LVMC, faculty with clinical expertise educate the professional students. The majority of the clinical faculty are board-certified Diplomates of AVMA-recognized specialties. These same faculty provide both didactic and traditional laboratory teaching in the VM1-VM3 curriculum, most significantly in the clinical didactic courses in the VM3 year. Visiting clinicians and seminar speakers are recruited based on educational needs and opportunities. National and international experts are invited from animal industry (genomics and facility design), ISU departmental faculty (Ag Econ and Animal Science), and individual disciplines from within ISU CVM (epidemiology, theriogenology, infectious disease, etc.). Outside subject-matter experts are beneficial for the students to hear multiple perspectives on treatment approaches and management.

**4.7. Describe the adequacy of the medical records system used for the hospital(s), including field service and/or ambulatory and population medicine. Records must be comprehensive and maintained in an effective retrieval system to efficiently support the teaching, research and service programs of the college.**

The LVMC has a robust electronic medical records (EMR) system, CVIS (Cyclone Veterinary Information System), which was developed in-house. CVIS is a patient-centric medical record, available online from any location. It is fully searchable, and provides access to all patient information, including clinical pathology, diagnostic imaging, and client communication, in a single location. CVIS also provides excellent search functions for retrospective studies. Students start learning to use CVIS during their VM3 Surgery Lab (VCS 7449), receive further training regarding its use in the Introduction to Clinics course (VCS 7440) in the final semester of the VM3 year, and fully utilize CVIS during clinical rotations in the LVMC. CVIS works in conjunction with the commercial applications Vetstar and VADDS, which provide practice management functions for the clinic and the pathology labs respectively; students do not utilize Vetstar or VADDS.

In the VDPAM Veterinary Field Services (VFS) unit, medical records and invoicing are maintained in the unit's cloud-based veterinary software (ProVet). Students are trained on ProVet on the first day of VFS rotations and utilize this software to record medical notes from farm calls.

**4.8. Describe how the college has responded to increasing/decreasing clinical resources.**

Over the past five years, the LVMC caseload has increased 15-20%, providing additional learning opportunities for our veterinary students. As caseload has increased, we have commensurately increased the number of technical staff, house officers (residents and interns), and faculty clinicians employed by the LVMC.

While LVMC caseload has been increasing for most species, exotic animal caseload decreased following the 2020 retirement of an exotics-focused clinical faculty member. However, ISU CVM students have several elective opportunities in the preclinical (VM1-3) curriculum to gain experience with exotic animal medicine, including BMS 7401 Introduction to Aquatic Animal Medicine, VCS 7405 Pet Bird and Exotics Species Medicine, and VCS 7406 Introduction to Captive Wild Animal Medicine. Furthermore, to provide clinical exposure to exotic animals in the VM4 year, a new elective course was developed and implemented in 2023: VCS 7425X Rotation in Exotic Pet & Wildlife Medicine Clinical and Surgical Skills. This course provides hands-on medical and surgical experience with reptiles, birds, and small mammals. Interested students can also seek external experiences with the VCS 423 Zoo Preceptorship (elected by an average of 27 students per year) or VCS 419 Companion Animal Preceptorship at exotics-focused clinics (elected by an average of 10 students per year).

**4.9. Describe the means used to maximize the teaching value of each case across the curriculum.**

Animals admitted to the LVMC provide contextual experiences for professional students in the rotations where they are admitted as well as in supporting services such as clinical pathology, radiology, anesthesia, and necropsy. Clinical cases from one service often require internal consultation with other

specialty services, allowing students on multiple VM4 rotations to derive educational value from the same case. Cases are also used to provide VM1-3 clinical instruction and augment basic sciences instruction across multiple courses in a variety of ways, including the following: 1) The Department of Veterinary Pathology (VPTH) uses samples derived from LVMC cases for instruction in required courses, and uses case information for a capstone case analysis assignment called the Case Correlation Assignment. Case Correlation Assignments are then used to teach VM1 and VM2 students. Biopsy case submissions from external clients are used for a VM4 seminar in which students see the case from the pathologist's perspective, having only the submission form and submitted tissue description. This activity aids development of submission history writing skills and provides exposure to histopathology lesions. 2) Radiology, microbiology, and other diagnostic testing services use case material in didactic and laboratory sessions. 3) Case study, physiology, and anatomy courses utilize clinical cases to illustrate the application of basic sciences to actual clinical case problems and analysis. 4) Clinical faculty use case images, videos, diagnostic test results and other clinical outcomes for teaching and providing practice activities in classes in the VM1-3 years.

#### **Standard 4 - Clinical Resources, UNL**

Clinical instructional facilities available for UNL students includes the GPVEC in Clay Center, NE (see section 3.5, Table H, and Table I). The GPVEC provides access to beef cattle, swine, and sheep via the USDA US Meat Animal Research Center (USMARC). VM1 students participate in a 1-week production animal immersion experience at GPVEC, staying in the one-site dormitories. GPVEC also provides a variety of elective VM4 rotations. UNL students also have access to large animals (cattle, horses, swine, and sheep) and associated indoor working facilities within the Animal Sciences Complex (ASCI).

The PPVM also has a strong relationship with the Capital Humane Society (CHS) in Lincoln, NE (see section 3.5, Table H, and Table I). The CHS provides access to shelter dogs and cats, and occasionally small mammals, birds, and reptiles. Small groups of VM2 students visit the CHS one afternoon each week during the academic year (4 visits total per student) to perform pre-surgical physical examinations, blood collections, vaccinations, and basic diagnostic testing.







## STANDARD 5. LIBRARY AND INFORMATION RESOURCES

### ***5.1 Describe and comment on the adequacy of information retrieval and learning resources.***

The Veterinary Medical Library (VML), a part of the Iowa State University Library system, is a 5,735 sf space within Patterson Hall. The VML houses a physical collection of 17,571 volumes and the ISU Library subscribes to over 300,000 journals available online. The VML continues to expand access to electronic books via ScienceDirect, Wiley Online Library, Ebrary and R2 Digital Library. The ISU Library has shifted to a policy of prioritizing the purchase of e-books over print books to maximize access.

The VML is open seven days per week (82.5 hours/week) during the school year, with extended hours during finals weeks. The environment for learning and research is supported by group study areas, dedicated quiet individual study spaces, and a group study room.

A Bookeye 4 overhead scanner, duplexing printer, and two Solstice laptop screen sharing stations (a means for collaborative student discussions) are available in the VML.

### ***5.2 Briefly describe the availability of learning and information technology resources support for faculty and students, including personnel and their qualifications.***

The veterinary medical librarian holds a Bachelor of Fine Arts degree from Iowa State University and a Master of Library and Information Science degree from the University of Wisconsin-Milwaukee. The veterinary medical librarian is permanently located at the VML and is available approximately 40 hours a week for in-person or remote consultations. Trained student assistants work at the VML service desk and oversee library operations on nights and weekends during which they have access to a supervisor by text or phone.

The veterinary Manager of Information Technology Support holds a Bachelor of Science degree from Iowa State University and a Master of Education from Iowa State University. The Manager of Information Technology Support is permanently located in the IT hallway and is available approximately 40 hours a week for in-person or remote consultations. Trained student assistants work with the Manager of Information Technology Support as technology liaisons during class, lunch meetings, and before and after hour meetings during which they have access to a supervisor by text or phone.

The veterinary Audio-Visual Support Specialist holds eight certifications related to the audio-visual field. The Audio-Visual Support Specialist is permanently located in the IT hallway and is available approximately 40 hours a week for in-person or remote consultations. Trained student assistants work with the Audio-Visual Support Specialist as technology liaisons during class, lunch meetings, and before and after hour meetings during which they have access to a supervisor by text or phone.

The veterinary Instructional Designer holds a Bachelor of Science degree from Iowa State University and a Master of Education from Iowa State University. The Instructional Designer is permanently located in the IT hallway and is available approximately 40 hours a week for in-person or remote consultations.

The Office of Curricular Assessment and Teaching Support (OCATS) provides support for faculty and students in veterinary teaching and design of learning environments. OCATS provides individualized support for faculty in course design and material development as well as community based professional development activities for teaching. OCATS has four full time staff including the director, a student services specialist, a research scientist, and instructional technology specialist.

The OCATS Director holds a PhD in Education from Iowa State University. The director is permanently located in the IT Hallway and is available approximately 40 hours a week for in-person and remote consultations. The Director also manages several professional development activities in teaching

including Teaching and Learning Community meetings, two teaching certificate programs, and individual consultations with faculty as needed.

The OCATS Student Services Specialist holds a Bachelor of Arts degree from Coe College and has many years of professional support service experience. The Student Services Specialist is located in IT hallway and is available approximately 40 hours a week for in-person or remote support operations.

The OCATS Research Scientist holds a PhD in Psychology from Iowa State University. The research scientist supports faculty in data analysis to enhance learning and improve course delivery. The research scientist is permanently located in the IT hallway and is available approximately 40 hours a week for in-person or remote consultations.

The OCATS Instructional Technology Specialist holds a Bachelor of Science degree from Hefei University of Technology and a Master of Education and a Master of Science from Iowa State University. The Instructional Technology Specialist is permanently located in the IT hallway and is available approximately 40 hours a week for in-person or remote consultations.

In addition to the OCATS office, Iowa State University's campus-wide Center for Excellence in Learning and Teaching (CELT) provides instructional design services, training, and programming.

The college offers a variety of Information Technology resources including an instructional digital imaging system, online Learning Management System (LMS) (Canvas), Lecture Capture (Echo360), LockDown Browser (for testing), and TopHat audience response system. All VM1-3 lecture courses are automatically recorded by Echo360 and made available to students through Canvas, including automated transcript generation. Veterinary students were hired to caption older existing teaching videos for hearing impaired students (Americans with Disabilities Act compliance). Upon matriculation, all students receive a university-issued (student-owned) mobile computer with pre-loaded productivity and learning software, and with automatic backup via the web to ensure no data are lost. Wireless connectivity is available throughout the campus.

### ***5.3. Describe the reliability and methods of access, as well as security considerations, to library information resources for faculty and students when they are on and off campus.***

While at the CVM, students/faculty can access the library's electronic resources via their laptop computers, mobile devices, or on two available public library computers.

On-campus access is available to all faculty, staff and students affiliated with ISU through direct IP recognition. Remote access to electronic materials and resources is available through the university's single-sign-on two-factor authentication system. In 2020 the ISU Library adopted OpenAthens, a next-generation service that allows SAML-based authentication alongside traditional proxying, to replace its legacy EZProxy service. This more secure method allows off-campus users to authenticate directly on most e-resources platforms without first visiting the ISU Library website.

*Pick from Shelf* is a free delivery service for obtaining books and journals from the main campus library. This service operates every weekday. The ISU Library also implemented a home delivery service in summer 2020. Materials not held by ISU can be requested via traditional interlibrary loan or through the Two Rivers Alma Consortium partner libraries, a group of libraries located in Iowa that facilitates speedy sharing of library resources between institutions.

Once UNL students are issued an ISU-ID, they are able to access ISU Library materials. This includes online resources such as journals and databases, e-books, training opportunities, and other services. UNL students are also able to request physical volumes from the ISU Library collections using the *Pick from Shelf* service and take advantage of free delivery through the U.S. Postal Service during their first two years studying in Nebraska.

***5.4. Describe the resources (training, support) provided and available to students for improving their skills in accessing and evaluating information from sources in any media relevant to veterinary medicine.***

The veterinary medical librarian provides instructional sessions to CVM students, faculty, and staff. Instructional sessions include: library orientation, utilization of abstracts and indexing services, and bibliographic reference management tools (Mendeley and Endnote). Orientation sessions are presented to incoming VM1 students, UNL VM3 students, and participants in the Summer Scholars program to provide an overview of VML services and resources.

Online library guides are included on the VML homepage. These guides include: information about library resources, listings of books that are on reserve for ISU CVM courses, a guide to help ISU CVM students prepare for public presentations, and a listing of resources available for use in studying for the NAVLE.

***5.5 Describe assessment of students' skills in retrieving, evaluating, and applying information pertinent to veterinary medical science including clinical case management as preparation for lifelong learning.***

Students' lifelong learning skills in retrieving, evaluating, and applying information pertinent to veterinary medical science and clinical case management are assessed in a variety of courses throughout the curriculum. In the VM4 year, this skill is assessed in Grand Rounds (VCS 7495), Anesthesiology (VCS 7466), Soft Tissue Surgery (VCS 7455), Equine Surgery (VCS 7458), Food Animal & Camelid Medicine and Surgery (VDPAM 7477), and Clinical Pathology (VPTH 7457). For example, in Grand Rounds, students are assessed on the accuracy and use of references during their case presentations. In Equine Surgery and Food Animal & Camelid Medicine and Surgery, students are assessed regarding whether they often access appropriate, contemporary information from quality resources and they use that information to help manage patients, and whether they demonstrate a commitment to the practice of evidence-based medicine. In VM1-3 years, students are introduced to current research related to course topics, and faculty model how to analyze emerging research and integrate it into clinical practice. For example, in BMS 7337 (Neurobiology), students are presented with new information and research findings relevant to cases, most of which is still in the experimental stage. For another example, in VCS 7444/7436 (Small Animal Medicine), primary literature and consensus statements are discussed and linked within Cardiology lectures to provide students with an evidence-based context.

***5.6. Describe current plans for improvement.***

Recent improvements to the VML include removal of shelving to expand seating; new carpeting; new furniture to enhance group and individual studying and to improve accessibility; and the conversion of former VML staff office space into a group study room.

The VML has recently increased its lending services in terms of educational aids for students. Headphone sets have been historically available for loan; in Fall 2022, the VML began lending calculators and a limited assortment of power cords, adapters, and other computer peripherals. In coordination with a faculty member, in Spring 2021 the VML began loaning out plastinated brain specimens to students in a neurobiology course so that they could view them outside of regular lab hours. The veterinary medical librarian will continue to investigate other technology or anatomical models that may be loaned to students.

ISU Library staff continues to prioritize the purchase of electronic resources over print and emphasizes the purchase of Digital Rights Management-free resources when possible. The veterinary medical librarian is dedicated to providing new educational opportunities for students and faculty focused on advanced literature searching, open access publishing, evidence-based decision making, and research data management (in coordination with the ISU Library data services team).

## **UNL**

**The Dinsdale Family Learning Commons** serves as the library for UNL's East Campus and is located within 0.5 miles of the Veterinary Medicine and Biomedical Sciences Hall (VBS). The library is open daily, 7:30 am-11:00 pm. In addition to books and other library materials, this facility houses numerous individual and group study spaces, several meeting rooms, IT support services, and the East Campus Exam Commons (testing center). Students access most learning materials via their laptops and are able to access all digital library materials online using their university credentials. UNL librarians maintain online subject guides for resources, such as e-books, specific to veterinary medicine. A UNL librarian provides an overview of library services to incoming students during orientation.



## STANDARD 6. STUDENTS

ISU

### 6.1. Complete Tables A, B, C, and D, and analyze trends.

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

**Table A - Veterinary Medical Program**

| Class  | Fall 2019 | Fall 2020 | Fall 2021 | Fall 2022 | Fall 2023 |
|--|-----------|-----------|-----------|-----------|-----------|
| First-year   | 155       | 160       | 162       | 161       | 166       |
| Second-year  | 153       | 162       | 161       | 153       | 158       |
| Third-year   | 149       | 154       | 159       | 160       | 150       |
| Fourth-year  | 138       | 149       | 153       | 157       | 160       |
| # Graduated  | 151       | 138       | 148       | 152       | 157       |
| Students from other institutions enrolled for the entire clinical year only* | 26        | 28        | 15        | 14        | 19        |

\*represents student or students admitted for only the clinical year from other accredited and non-accredited schools

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

| Department        | # Interns | # Residents | # Resident-MS | # Resident- PhD | M S       | PhD       |
|-------------------|-----------|-------------|---------------|-----------------|-----------|-----------|
| <b>Total 2019</b> | <b>13</b> | <b>27</b>   | <b>0</b>      | <b>12</b>       | <b>58</b> | <b>76</b> |
| BMS 2019          | 0         | 0           | 0             | 0               | 38        | 24        |
| VCS 2019**        | 13        | 27          | 0             | 0               | 0         | 0         |
| VDPAM 2019        | 0         | 0           | 0             | 0               | 6         | 0         |
| V PTH 2019        | 0         | 0           | 0             | 12              | 1         | 1         |
| VMPM 2019         | 0         | 0           | 0             | 0               | 13        | 51        |
| <b>Total 2020</b> | <b>15</b> | <b>21</b>   | <b>0</b>      | <b>10</b>       | <b>68</b> | <b>86</b> |
| BMS 2020          | 0         | 0           | 0             | 0               | 47        | 28        |
| VCS 2020**        | 15        | 21          | 0             | 0               | 1         | 0         |
| VDPAM 2020        | 0         | 0           | 0             | 0               | 7         | 7         |
| V PTH 2020        | 0         | 0           | 0             | 10              | 1         | 1         |
| VMPM 2020         | 0         | 0           | 0             | 0               | 12        | 50        |
| <b>Total 2021</b> | <b>15</b> | <b>27</b>   | <b>1</b>      | <b>10</b>       | <b>75</b> | <b>68</b> |
| BMS 2021          | 0         | 0           | 0             | 0               | 47        | 26        |
| VCS 2021**        | 15        | 27          | 1             | 0               | 0         | 0         |
| VDPAM 2021        | 0         | 0           | 0             | 0               | 10        | 0         |
| V PTH 2021        | 0         | 0           | 0             | 10              | 4         | 1         |
| VMPM 2021         | 0         | 0           | 0             | 0               | 14        | 41        |
| <b>Total 2022</b> | <b>16</b> | <b>29</b>   | <b>3</b>      | <b>8</b>        | <b>84</b> | <b>77</b> |
| BMS 2022          | 0         | 0           | 0             | 0               | 57        | 20        |
| VCS 2022**        | 16        | 29          | 1             | 0               | 0         | 0         |



|                   |           |           |          |          |           |           |
|-------------------|-----------|-----------|----------|----------|-----------|-----------|
| VDPAM 2022        | 0         | 0         | 0        | 0        | 13        | 17        |
| V PTH 2022        | 0         | 0         | 3        | 8        | 2         | 1         |
| VMPM 2022         | 0         | 0         | 0        | 0        | 12        | 39        |
| <b>Total 2023</b> | <b>18</b> | <b>29</b> | <b>6</b> | <b>7</b> | <b>80</b> | <b>80</b> |
| BMS 2023          | 0         | 0         | 0        | 0        | 46        | 16        |
| VCS 2023**        | 18        | 29        | 0        | 0        | 0         | 0         |
| VDPAM 2023        | 0         | 0         | 0        | 0        | 16        | 25        |
| V PTH 2023        | 0         | 0         | 6        | 7        | 4         | 2         |
| VMPM 2023         | 0         | 0         | 0        | 0        | 14        | 37        |

Notes: Interns include specialty interns

\*\* Interns and residents are officially hired and supervised as employees of the LVMC; however, their Department or Academic home is listed as the VCS Department.

**Table C - DVM Students per year for last five years**

| Academic Year  | DVM   |      |       |
|----------------|-------|------|-------|
|                | Total | *Min | % Min |
| 2019-20 (Fall) | 595   | 61   | 10.2  |
| 2020-21 (Fall) | 625   | 62   | 9.9   |
| 2021-22 (Fall) | 635   | 69   | 10.8  |
| 2022-23 (Fall) | 631   | 69   | 10.9  |
| 2023-24 (Fall) | 634   | 70   | 11.0  |

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

As reported in our 2020 interim report, in 2020 we increased our incoming DVM class size by 5. Beginning in 2023, we increased our incoming class by an additional 5, including 4 at UNL and 1 at ISU, for a total incoming class of 166. Also, as seen in Table C, the percentage of students from historically underrepresented (Min) groups has increased from a low of 9.9% to 11.0% during the reporting period. Numbers of house officers have also grown, while numbers of PhD students have declined; numbers of MS students dipped and are now increasing again. The increase in DVM student and house officer numbers reflects the growing demand for veterinarians and veterinary specialists, the LVMC's growing caseload, and the need to continue to increase both tuition and caseload revenue to ISU CVM. Graduate student numbers reflect a fluctuation in demand for graduate education and challenges in enrolling foreign graduate students during the Covid-19 pandemic.

**Promoting diversity within the student body.** The increase in percentage of students from underrepresented backgrounds represents ISU CVM's efforts to recruit from and support that demographic. As mentioned in Section 1.9, various college initiatives and/or resources are implemented to create in institutional environment that fosters diversity, and to support diversity among the student body specifically. These initiatives include removing unnecessary barriers in admissions, hosting a variety of student clubs and organizations, and ensuring student representation in the college Diversity and Inclusion Committee. ISU CVM also brings full-time students from China and Taiwan to the veterinary college each year, hosts additional visiting students from around the world, and provides opportunities for our students to learn in a variety of international locations.

**6.2. Provide a listing of student services. These services must include, but are not limited to, registration, testing, mentoring (advising), counseling, tutoring, peer assistance, financial aid**

*counseling programs, and clubs and organizations. Demonstrate that students are informed of and have ready access to academic counseling, personal wellness, financial aid, debt management, and career planning services.*

**Student Services include:**

**Course registration.** The Office of the Registrar (University) registers students with CVM assistance. The CVM Office of Academic and Student Affairs (OASA) staff maintain all academic records of veterinary students (both at ISU and UNL). The OASA Record Analyst administers student registration procedures and processes, schedules students and courses, monitors degree audits for graduation requirements, certifies all credentials for student enrollment status, assists with applications, and provides student data to NAVLE for reporting purposes.

**Testing.** Most examinations occur during regular classroom testing blocks and in classroom or laboratory settings. Testing accommodations are available (see ISU Student Accessibility Services, below).

**Advising and Peer Assistance.** We utilize both faculty and peer mentoring. Incoming VM1 students are assigned a faculty advisor and a peer VM2 mentor. Faculty advisors have access to their advisees' grades and are notified at mid-term if there is risk of academic probation. Mentors are available to assist with study skills, time management, location of campus and community resources, course selection, career planning, workshops, drop/add procedures, referrals for tutoring, and related areas.

**Counseling/Wellness.** Mental health counseling is available to all ISU CVM students through an embedded clinical therapist in the CVM, counseling services on main campus, and tele-counseling services (available 24/7/365). The embedded therapist is part of the OASA team and has regular (bi-weekly) meetings with the Senior Associate Dean. The therapist offers individual on-site counseling appointments to students using a short-term model, with long-term follow-up care available through community providers, Virtual Care Group telehealth services, and other options. The therapist also coordinates regular wellness related workshops on a range of topics. An embedded social worker within the teaching hospital also supports VM4 students, staff, faculty, and house officers dealing with challenging client concerns, and can provide immediate assistance for students or staff in mental health crisis. The college offers Mental Health First Aid training and certification on an annual basis to faculty, staff and students.

All students have access to an embedded fitness facility and dedicated wellness space ("The Hideaway") within the CVM building. Students also have 24/7/365 access to a self-serving college-wide supported food pantry, Bone Appétit.

Additional wellness activities are supported by committees within our Student American Veterinary Medical Association (SAVMA) Chapter, including Recreation and Stress Relief (focusing on physical health and wellness), Revolution Wellness (focusing on mental health and wellness), and CVM Thrive (integrating multiple dimensions of wellness using the Keystone Habit Tracker app). Activities organized by these committees are available to all students and include on-site yoga, Zumba, and tai chi classes; an on-site Disc Golf course; annual SAVMA Scamper and Iron Dog 5K races; annual flag football tournament and faculty-student hockey game; CVM Winter Olympics; and holiday-related activities such as Halloween Trick-or-Treating.

Additional recent changes to support student wellness include adoption of Student Duty Hours guidelines (2018), renovation of the Fish Tank Lobby and Gentle Dr. Commons area (2019-2020), and installation of a bike path for safer access to the bus stop (2019 -2020).

**Peer Tutoring and Academic Coaching.** Our tutoring program, overseen by the Assistant Dean of Student Success, provides one-on-one and small group peer tutoring for students at academic risk. VM2-3

students interested in serving as tutors are approved by individual course instructors; most instructors require that tutors have previously received an A or B in the course to be tutored. OASA staff encourages communication between tutors and faculty and is proactive in alerting faculty and advisors of student academic status during the year. Students are also made aware of academic resources (academic coaching and accessibility services) on central campus.

**Clubs/Student Organizations.** The CVM supports over 30 clubs and organizations (<https://www.stuorg.iastate.edu/organizations/24/type>) encompassing a wide range of professional interests. There are 16 veterinary product companies that employ student representatives to provide educational, networking, and wellness opportunities. Club officers and student company representatives must maintain certain academic requirements. There is an OASA liaison to these groups.

**Event coordination.** The CVM coordinates a variety of student events including the White Coat Ceremony, VM1 Orientation, the White Coat Ceremony, CVM Commencement, job fair and networking events, Preview Day for admitted and waitlisted students, and pre-veterinary recruitment events.

**Financial literacy/Contracts.** Financial literacy instruction is part of the VCS 7311 Careers in Veterinary Medicine (VM1 course), via Personal Financial Success modules provided by drip.vet. Topics include career planning, paying for veterinary school, budgeting, managing debt, finding employment, and negotiating contracts. Contract negotiation is further discussed in VCS 7315 Veterinary Law (VM3 course). For personalized financial counseling, students have access to the Office of Student Financial Success within the main ISU Financial Aid office. These expert staff offer Financial Literacy advising appointments that can be accessed during weekly office hours at ISU CVM or by appointment (in-person or virtual). Topics can include basic personal finance, budget development, loan repayment, building credit, and managing debt. The ISU CVM Career Development Resources Canvas course also includes resources on personal finance and contract negotiation, including a list of ISU CVM faculty and ISU CVM Practice Partners offering to provide contract negotiation advice and other career-related mentorship for individual students.

**Opportunity/Federal Compliance.** ISU CVM has an in-college contact (CVM Equal Opportunity Information Advisor) for Title IX compliance. All students, staff, and faculty are required to complete university Title IX training. Student advisors and student administrative support personnel are required to complete FERPA training modules.

**Health Care.** ISU CVM students are invited (but not required) to participate in ISU's Student & Scholar Health Insurance Program, which can also provide healthcare coverage for external educational experiences. All students (even those not electing health insurance) have access to the Thielen Student Health Center, which provides comprehensive physical and mental healthcare services. Students are required to have proof of measles and rabies immunizations. The CVM partners with Thielen Student Health Center to coordinate a rabies titer clinic at the Health Center for VM3 students and an on-site rabies vaccination clinic for VM1 students.

**ISU Student Accessibility Services (SAS).** The ISU SAS office evaluates and approves accommodation requests. OASA staff work with ISU SAS to ensure accommodations are implemented appropriately. Several rooms at the CVM are utilized to provide low distraction and/or solitary testing.

**Veterans Center.** Veterinary students, staff, faculty who are veterans and their immediate family (spouse, domestic partner, children) can find support, information and a shared camaraderie at the Veterans Center on main campus.

**Student Legal Services.** The University provides free legal assistance for currently enrolled ISU students and ISU registered student groups. It is staffed by two attorneys who advise and often represent students in a variety of cases and are available for consultation with respect to most legal concerns.

**Student Safety.** Campus Safety Ambassadors (CSAs) are student employees of the ISU Police Department who patrol the building after hours and on weekends. The college offers Violent Incident Response Training. Outdoor areas are well-lit. Protocols and facilities are maintained with students' safety in mind as described in Section 3.3.

**License and Credentialing.** Information regarding the NAVLE, state examinations, and state requirements is available to all students on-demand in the [ISU CVM Career Development Resources Canvas course](#) (see Career Planning Services section below).

**Cultural and Global Experiences/ Study Abroad.** ISU provides an array of cultural events and opportunities designed to celebrate a rich variety of cultural backgrounds. [Study abroad programs](#) are available, both for VM1-3 students and as clinical rotations for VM4 students. Scholarships are available to support student travel for these experiences. Post-pandemic, between 18-30 ISU CVM students per year have participated in international programs. International programs are administered by a Coordinator of International Programs within OASA, with oversight from the Assistant Dean for Extramural Student Programs.

**Career Planning Services.** Comprehensive career planning resources are provided for students through the [ISU CVM Career Development Resources Canvas course](#), which is publicly available from main CVM [website](#) and regularly updated by the Assistant Dean for Extramural Student Programs. This course includes "Career Roadmaps" for different species and interest areas with suggested elective courses, extracurricular experiences, and faculty contacts; links to a variety of online job boards for veterinary employment; tutorials to assist students with writing resumes and cover letters; comprehensive information about applying for internships and residencies; and best practices for interview preparation and contract negotiation. This course also includes a list of ISU CVM faculty and ISU CVM Practice Partners (see below) offering to provide individualized career-related mentorship for students in a variety of interest areas.

In 2023, ISU CVM launched the [Practice Partners Program](#), a streamlined mechanism for practices, corporations, and other organizations to interact with ISU CVM students for recruitment purposes. Practice Partners can interact with students in four main ways: 1) advertising employment opportunities via a monthly email digest sent to all students (and archived on the ISU CVM Job Board); 2) participating in in-person networking and job fairs (one annually in fall, one in spring); 3) collaborating with student clubs and organizations to host educational events on campus; and 4) offering to provide on-demand student career development consulting for individual students. Practice Partners pay a participation fee to our SAVMA chapter (amount chosen by the organization), which is used to provide educational and professional opportunities for students. Over 100 Practice Partners joined this program in its first full year of implementation (2023-2024), including a variety of corporations and privately-owned practices from the Midwest and nationwide.

**6.3 Provide a list of tuition-related information available for prospective students. This information, as consistent with applicable law, must include estimated total educational cost, cost of living, considerations, and a description of financial aid programs. Make collected data on salaries, employment rates, and educational debt available to the public, as consistent with applicable law.** The College's [Financing Your Education](#) webpage contains resources and links including estimated total educational cost for residents and non-residents, cost of living estimates, and links to CVM-specific [financial aid programs](#). Employment rates, salaries of new graduates, and educational debt information are available on the publicly-available [DVM Post-Graduation Employment Statistics](#) webpage.

**6.4 Describe how conflicts of interest regarding academic assessment of students are avoided with individuals who provide student counseling.**

Staff who provide student counseling are not involved in academic assessment.

**6.5 Provide a summary of college activities in support of placement of graduates.**

Please see the description of “Career Planning Services” in Section 6.2, above.

**6.6. Provide academic catalogue(s) (or an electronic address for this resource) and freshman/upper-class orientation materials.**

Orientation schedules are presented in the appendices (see Appendix 6.6.1.-ISU, Appendix 6.6.2.-UNL)

**Table 6.6.1 - Links to academic catalog, requirements, college information, policy**

|  |   |
|--|---|
| Academic Calendar  | <a href="https://www.registrar.iastate.edu/calendar">https://www.registrar.iastate.edu/calendar</a>   |
| Academic Policies (including withdrawal, dismissal, academic/grades) | <a href="https://vetzone.cvm.iastate.edu/download/academics/Academic-Standards-May-2016.pdf">https://vetzone.cvm.iastate.edu/download/academics/Academic-Standards-May-2016.pdf</a> (Behind firewall)   |
| Admissions procedures and prerequisites                              | <a href="https://vetmed.iastate.edu/future-dvm-students/ready-to-apply/apply-to-the-college/">https://vetmed.iastate.edu/future-dvm-students/ready-to-apply/apply-to-the-college/</a>   |
| Catalog (University)   | <a href="http://catalog.iastate.edu/collegeofveterinarymedicine/">http://catalog.iastate.edu/collegeofveterinarymedicine/</a>   |
| Costs  | <a href="https://www.registrar.iastate.edu/fees/">https://www.registrar.iastate.edu/fees/</a>   |
| Curriculum and Degree Requirements                                   | <a href="https://vetmed.iastate.edu/students/curriculum">https://vetmed.iastate.edu/students/curriculum</a>   |
| Duty Hours Policy  | <a href="https://vetzone.cvm.iastate.edu/download/policy_documents/ISU-CVM-Duty-Hours-Policy-Approved-4-26-19.pdf">https://vetzone.cvm.iastate.edu/download/policy_documents/ISU-CVM-Duty-Hours-Policy-Approved-4-26-19.pdf</a> (Behind firewall)   |
| Faculty Information  | Biomedical Sciences: <a href="https://vetmed.iastate.edu/bms/directory/faculty">https://vetmed.iastate.edu/bms/directory/faculty</a><br>Veterinary Clinical Sciences: <a href="https://vetmed.iastate.edu/vcs/faculty-staff/vcs-faculty">https://vetmed.iastate.edu/vcs/faculty-staff/vcs-faculty</a><br>Veterinary Diagnostic and Production Animal Medicine: <a href="https://vetmed.iastate.edu/vdpam/faculty-staff/faculty-directory">https://vetmed.iastate.edu/vdpam/faculty-staff/faculty-directory</a><br>Veterinary Microbiology and Preventive Medicine: <a href="https://vetmed.iastate.edu/vmpm/faculty-staff/faculty">https://vetmed.iastate.edu/vmpm/faculty-staff/faculty</a><br>Veterinary Pathology: <a href="https://vetmed.iastate.edu/vpath/faculty-staff/faculty-staff-directory">https://vetmed.iastate.edu/vpath/faculty-staff/faculty-staff-directory</a> |
| Financial Aid Programs   | <a href="https://financialaid.iastate.edu/applying-for-aid/vetmed-students/">https://financialaid.iastate.edu/applying-for-aid/vetmed-students/</a><br><a href="https://vetmed.iastate.edu/future-dvm-students/still-exploring/tuition-financial-aid-scholarships/">https://vetmed.iastate.edu/future-dvm-students/still-exploring/tuition-financial-aid-scholarships/</a>  |
| General Program information (Purpose, goals, general outcomes)       | <a href="https://vetmed.iastate.edu/academics/DVM-program">https://vetmed.iastate.edu/academics/DVM-program</a>   |
| Healthcare   | Student and Scholar Health Insurance Program: <a href="https://sship.hr.iastate.edu/">https://sship.hr.iastate.edu/</a><br>Thielen Health Center: <a href="https://cyclonehealth.iastate.edu/health-clinic">https://cyclonehealth.iastate.edu/health-clinic</a><br>Student Counseling Services: <a href="https://cyclonehealth.iastate.edu/student-counseling-services">https://cyclonehealth.iastate.edu/student-counseling-services</a>   |
| Licensure information for new graduates                              | <a href="https://vetzone.cvm.iastate.edu/students/curriculum-and-course-information/4th-year-information/">https://vetzone.cvm.iastate.edu/students/curriculum-and-course-information/4th-year-information/</a> (Behind firewall)   |
| Remediation Policies   | <a href="https://vetzone.cvm.iastate.edu/download/policy_documents/Clinical-Competency-Remediation-Policy-6-7-23.pdf">https://vetzone.cvm.iastate.edu/download/policy_documents/Clinical-Competency-Remediation-Policy-6-7-23.pdf</a> (Behind firewall)   |

Note: VetZone is ISU CVM’s intranet, and is accessible to all students, faculty, and staff using their ISU login credentials.

**6.7 Describe the system used on an ongoing basis to collect student suggestions, comments, and complaints related to the standards for accreditation.**

ISU CVM maintains an [Accreditation webpage](#) including links to AVMA-COE standards and a Comment Form specifically for feedback regarding college compliance with accreditation guidelines. It is our

communicate any feedback gathered through this Comment Form to the AVMA-COE as part of Annual Interim Reports. Student feedback is also frequent and ongoing through the Student Leadership Assembly (SLA), Student of the American Veterinary Medical Association (SAVMA), and the Student-Faculty Relations Committee. Finally, the Dean, Senior Associate Dean, and their leadership teams meet at least once per semester with student leaders and with the full student body to share information and solicit feedback.

**6.8 For student services that the college does not provide directly, describe how students have reasonable access to such services from the parent institution or from other sources that are relevant to the specific needs of students, and describe current plans for improvement in resources for students.**

The College and Iowa State University provide all student services, with links to some external resources, as described above. The college is engaging in ongoing discussions about how to enrich existing wellness programs to best meet student needs, including access to mental health resources and academic coaching.

### **Standard 6 - Students, UNL**

UNL and ISU share student resources, especially in the areas of student organizations, seminars, and courses. UNL student resources are organized by the PPVM Coordinator and information is provided in the PPVM Student Handbook and Student Resources page in Canvas.

When needed, the PPVM Coordinator identifies qualified peer tutors for students who need extra assistance in a course. The UNL Services for Students with Disabilities (SSD) office provides evaluation of student disabilities and guidance to faculty on how to provide academic accommodations. The Center for Academic Success and Transition (CAST) offers one-on-one coaching and seminars related to study strategies and time managements skills that can help students with the transition from their undergraduate program to professional school.

The University Health Center provides numerous medical and wellness services for UNL students. This facility is located on UNL's City Campus. Big Red Resilience offers several programs designed to help strengthen student well-being. They offer peer mentors, financial well-being assessments, and suicide prevention training.

UNL students have access to several different mental health services located on UNL's East or City Campuses. These services are either provided at no cost to all UNL students or the visit fees are paid by the PPVM. Same-day evaluations, short-term counseling, referral services, and 24-hour crisis care are provided by Counseling and Psychological Services (CAPS) at the University Health Center. Long-term individual and relationship counseling services are available to students through the Counseling and School Psychology Clinic (CSPC) and the Couple and Family Clinic (CFC). PPVM students receive priority scheduling at both of these clinics, and they offer extended-hour (evening and Saturday) appointment options. The CFC is located 0.6 miles from the Veterinary Medicine and Biomedical Sciences Hall (VBS), while both CAPS and the CSPC have dedicated patient parking and are an 8 or 9-minute drive away, respectively.

The Recreation and Wellness center is located 0.6 miles from the VBS building. Use of this facility is free to all UNL students, and it houses a wide selection of cardio and strength-training equipment, an indoor track, two indoor gymnasiums, and a rock-climbing wall. Services associated with the RWC include intramural sports leagues, personal training, massage therapy, cooking classes, and bicycle repair.

The Husker Pantry is free to all UNL students and is located in the East Campus Visitors Center (0.6 miles from the VBS building). In addition to shelf-stable food products, the pantry is able to provide fresh meat and poultry through partnerships with local businesses and organizations. Students are also able to obtain personal hygiene items, cleaning supplies, and pet food at the pantry.



Incoming students are required to participate in a two-day orientation at UNL prior to their first week of classes. A panel of VM3-4 PPVM students meet with VM1-2 students during the latter part of the fall semester to address concerns and answer questions regarding the transition to ISU. The PPVM Coordinator and the UNL SVMBS Director hold annual meetings with PPVM students (including VM3-4 students at ISU) to provide program updates and elicit feedback regarding program concerns. The College of Agricultural Sciences and Natural Resources (CASNR) Dean meets with VM2 students to conduct a group exit interview to explore program strengths and areas for improvement. The PPVM Coordinator and UNL SVMBS Director have an open-door policy for students to provide feedback throughout the year. Students can also provide feedback online in an anonymous manner via Qualtrics.

**PPVM Students:**

Class of 2018: 26 matriculated, 26 graduated  
 Class of 2019, 26 matriculated, 25 graduated  
 Class of 2020, 26 matriculated, 24 graduated  
 Class of 2021, 26 matriculated, 25 graduated  
 Class of 2022, 27 matriculated, 26 graduated  
 Class of 2023, 28 matriculated, 26 graduated  
 Class of 2024, 26 matriculated, 25 graduated  
 Class of 2025, 26 matriculated, 23 current students  
 Class of 2026, 26 matriculated, 24 current students  
 Class of 2027, 30 matriculated, 29 current students

Other: UNL SVMBS graduate students = 13 (7 Ph.D., 6 M.S.). UNL SVMBS undergraduate students = 119 (pre-veterinary medicine, veterinary technology, veterinary science). Numbers represent total enrollment at end of Spring 2024.

**Standard 6 Appendices:**

Appendix 6.6.1 – ISU Orientation Schedule

**Iowa State University  
 COLLEGE OF VETERINARY MEDICINE  
 Class of 2028 Orientation Schedule  
 Wednesday, August 21, 2024**

| <b>TIME</b>         | <b>ACTIVITY</b>                            | <b>PRESENTER</b>   | <b>LOCATION</b>        |
|---------------------|--|--|------------------------|
| <b>10:00 am</b>     | Optional main campus tour                  | <b>Dave Gieseke</b><br>Communications Manager                                  |                        |
| <b>1:00-3:00 pm</b> | Composite photo<br>Organization fair       | <b>Tracy Raef</b><br>Communications Specialist III<br><b>Organization Reps</b> | The Commons            |
| <b>1:00-3:00 pm</b> | College tour                               | <b>Ambassadors</b>   |                        |
| <b>1:00-4:00 pm</b> | Drop-in iPad pickup<br>Drop-in book pickup | <b>IT Team</b><br><b>SAVMA Bookstore</b>                                       | Room 2532<br>Room 2246 |
| <b>6:00 pm</b>      | SAVMA Ice Cream Social                     | <b>SAVMA</b>   | Fish Tank Lobby        |

**Thursday, August 22, 2024**

| <b>TIME</b>           | <b>ACTIVITY</b>   | <b>PRESENTER</b>   | <b>LOCATION</b>                        |
|-----------------------|---|--|--|
| <b>8:00-8:20 am</b>   | Breakfast   | <b>Sponsored by Hill's</b>   | The Commons                            |
| <b>8:20-9:10 am</b>   | Welcome from the Dean<br>Meet the OASA Team<br>Meet the VMI Teaching Faculty<br>College Climate Information | <b>Dr. Dan Grooms</b><br>Dean<br><b>Dr. Jared Danielson</b><br>Senior Associate Dean   | Room 2532                              |
| <b>9:10-9:50 am</b>   | DVM Curriculum Information<br><br>Registration and Class Scheduling   | <b>Dr. June Olds</b><br>Curriculum Committee<br><b>Mindy Schminke</b><br>Record Analyst  | Room 2532                              |
| <b>9:50-10:00 am</b>  | Break   |  |  |
| <b>10:00-10:40 am</b> | Accounts Receivable Information<br><br>Financial aid & Scholarship Information                              | <b>Sharon Hilleman</b><br>Accounts Receivable<br><b>Tara Joyce</b><br>Office of Student Financial Aid  | Room 2532                              |
| <b>10:40-11:10 am</b> | ISU CVM Academic Standards<br><br>Honor Code – Meaning and Value  | <b>Dr. Gayle Brown</b><br>Academic Standards Chair<br><b>Elizabeth Barnes</b><br>Honor Board Chair   | Room 2532                              |
| <b>11:10-11:40 am</b> | Sponsor presentations   | <b>Samantha McBeth</b><br><b>Zoe Robbins</b><br><b>Dr. Rae Rice</b><br>Hill's representatives<br><b>Riley Timp</b><br>Royal Canin representative | Room 2532                              |
| <b>11:40-1:00 pm</b>  | Lunch with faculty contact  |  | The Commons                            |
| <b>1:00-1:40 pm</b>   | White Coat Ceremony Information<br>Overview of Campus Services<br>Freshman Seminar Series                   | <b>Dr. Monica Howard</b><br>Assistant Dean   | Room 2532                              |
| <b>1:40-3:10 pm</b>   | IT Training<br>Notability and Classroom Applications  | <b>IT Team</b>   | Room 2226<br>Room 2532                 |
| <b>5:00-6:30 pm</b>   | Class of 2028 Picnic  |  | Brookside Park<br><b>Maple Shelter</b> |

**Friday, August 23, 2024**

| <b>TIME</b>           | <b>ACTIVITY</b>   | <b>PRESENTER</b>   | <b>LOCATION</b>        |
|-----------------------|---|--|------------------------|
| <b>8:00-8:20 am</b>   | Breakfast   | <b>Sponsored by Royal Canin</b>  | The Commons            |
| <b>8:20-9:00 am</b>   | Community training  |  | Room 2532              |
| <b>9:00-9:40 am</b>   | Introduction to the Iowa Veterinary Medical Association                   | <b>Dr. Shawn Nicholson</b><br>IVMA<br>Immediate Past President   | Room 2532              |
| <b>9:40-9:50 am</b>   | Break   |  |                        |
| <b>9:50-10:30 am</b>  | Lab safety training   | <b>Monica Hepker</b><br>Teaching Lab Specialist  | Anatomy Lab            |
| <b>10:30-10:40 am</b> | Break   |  |                        |
| <b>10:40-12:00 am</b> | Introduction to the ISU Chapter of SAVMA<br><br>Student Panel Discussions | <b>Bailey Wetzel</b><br>SAVMA President<br><b>Gus Peterson</b><br>SAVMA Vice President<br><b>Student Panelists</b> | Room 2532              |
| <b>12:00-1:00 pm</b>  | Lunch with SAVMA members<br>(Sponsored by SAVMA)                          |  | The Commons            |
| <b>1:00-2:30 pm</b>   | IT training<br>Tips & Tricks Using an iPad for Vet School                 | <b>IT Team</b>   | Room 2226<br>Room 2532 |

Appendix 6.6.2 – UNL Orientation Schedule

**University of Nebraska–Lincoln  
Professional Program in Veterinary Medicine  
CLASS OF 2027 ORIENTATION  
Thursday, August 17, 2023**

| <b>TIME</b>                    | <b>ACTIVITY</b>   | <b>PRESENTER</b>  | <b>LOCATION</b>               |
|--------------------------------|---|---|-------------------------------|
| <b>8:30-8:40 am</b><br>10 min. | Light breakfast and<br>Welcome bags courtesy of<br>Hill's                                     |   | Hallway outside<br>of 145 VBS |
| <b>8:40-9:30 am</b><br>50 min. | Welcome from the Dean   | Dan Grooms, Dr. Stephen<br>G. Juelsgaard Dean of<br>Veterinary Medicine, ISU<br>CVM   | 103 VBS (Zoom)                |
|                                | Meet the OASA Team<br>Meet the ISU CVM VM1<br>Teaching Faculty<br>College Climate Information | Dr. Jared Danielson,<br>Associate Dean of<br>Academic and Student<br>Affairs, ISU CVM |                               |

|                                     |   |   |                       |
|-------------------------------------|---|---|-----------------------|
| <b>9:30-9:40 am</b><br>10 min.      | School of Veterinary Medicine and Biomedical Sciences (UNL SVMBS) Welcome | Scott McVey, Director, UNL SVMBS; Associate Dean, PPVM  | 103 VBS               |
| <b>9:40-10:00am</b><br>20 min.      | University Health Center (UHC) Overview                                   | Jess Nguyen, Marketing Coordinator, UHC   | 103 VBS               |
|                                     | UnitedHealthcare Student Resources (UHCSR) Presentation                   | Chadsity Crear, University of Nebraska Health Insurance Advocate, UHCSR   |                       |
| <b>10:00-10:30 am</b><br>30 min.    | Big Red Resilience & Well Being   | Kenji Madison, Director, Big Red Resilience & Well Being  | 103 VBS               |
| <b>10:30-10:35 am</b><br>5 min.     | Break   |   |                       |
| <b>10:35-11:35 am</b><br>60 min.    | Student Handbook/General PPVM Questions                                   | Renee McFee, Coordinator, Professional Program in Veterinary Medicine   | 103 VBS               |
| <b>11:35-11:55 am</b><br>20 min.    | Family Resource Center  | Carrie Hanson-Bradley, Director, Marriage and Family Therapy Program, Family Resource Center, Child, Youth & Family Studies | 103 VBS               |
| <b>11:55 am-12:05 pm</b><br>10 min. | Nebraska Veterinary Medical Association (NVMA) Presentation               | Lindsey Waechter-Mead, President, NVMA<br>Megan Kilgore, Executive Director, NVMA   | 103 VBS               |
| <b>12:05-12:10 pm</b><br>5 min.     | PPVM Faculty & Staff Introductions  |   | 103 VBS               |
| <b>12:10-12:35 pm</b><br>25 min.    | Lunch   | Lunch w/ PPVM faculty & staff   | 106, 124, and 125 VBS |
| <b>12:35-12:40 pm</b><br>5 min.     | Break   |   |                       |
| <b>12:40-1:00 pm</b><br>20 min.     | Counseling and Psychological Services (CAPS)                              | Mark Lukin, Psychologist, CAPS  | 103 VBS               |
| <b>1:00-1:15 pm</b><br>15 min.      | Veterinary Scholarship Opportunity-US Army                                | SFC Matthew Patterson, SFC Calvin Hickman, Army Medical Recruiting, US Army   | 103 VBS               |
| <b>1:15-1:30 pm</b><br>15 min.      | Break   |   |                       |
| <b>1:30-2:30 pm</b><br>60 min.      | Student Handbook/General PPVM Questions                                   | Renee McFee   | 103 VBS               |
| <b>2:30-2:50 pm</b><br>20 min.      | Laptop Distribution and Set up  | Roxane Ellis, Systems Information Specialist, UNL SVMBS   | 103 VBS               |
| <b>End of Day</b>                   |   |   |                       |

**Friday, August 18, 2023**

| <b>TIME</b>                         | <b>ACTIVITY</b>                                    | <b>PRESENTER</b>  | <b>LOCATION</b>                                |
|-------------------------------------|--|---|--|
| <b>9:15-9:30 am</b><br>15 min.      | Laptop set up, continued                           | Roxane Ellis  | 103 VBS  |
| <b>9:30-10:15 am</b><br>45 min.     | Get to Know Your Laptop                            | Lisa Lund, Manager,<br>Information Technology<br>Support, Iowa State<br>University College of<br>Veterinary Medicine (ISU<br>CVM)                                       | 103 VBS (Zoom)                                 |
| <b>10:15-10:30 am</b><br>15 min.    | Travel to East Campus<br>Visitor's Center          |   |  |
| <b>10:30-11:15 am</b><br>45 min.    | UNL East Campus Walking<br>Tour                    | College of Agricultural<br>Sciences and Natural<br>Resources (CASNR)<br>Tour<br>Guides/Ambassadors  | East Campus<br>Visitors Center,<br>Filley Hall |
| <b>11:15 am-12:00 pm</b><br>45 min. | Lunch & discussion with<br>Class of 2026 members   | Class of 2026 members   | East Campus<br>Dining Center                   |
| <b>12:00-12:50 pm</b><br>50 min.    | PPVM Facilities Tours                              | Led by members of Class of<br>2026  |  |
| <b>12:50-1:10 pm</b><br>20 min.     | Student Panel                                      | Class of 2026 members   | 103 VBS  |
| <b>1:10-1:20 pm</b><br>10 min.      | Break--Goody bags<br>courtesy of Royal Canin       |   | Table outside of<br>145 VBS                    |
| <b>1:20-1:40 pm</b><br>20 min.      | UNL Libraries Presentation                         | Dana W.R. Boden,<br>Veterinary Medicine<br>Subject Librarian,<br>University Libraries   | 103 VBS  |
| <b>1:40-2:00 pm</b><br>20 min.      | Services for Students with<br>Disabilities         | Barbara Woodhead, Interim<br>Director, Services for<br>Students with Disabilities<br>Pablo Rangel, Disability<br>Specialist, Services for<br>Students with Disabilities | 103 VBS  |
| <b>2:00-2:15 pm</b><br>15 min.      | Center for Academic<br>Success & Transition        | Lori Romano, Director,<br>Center for Academic<br>Success & Transition   | 103 VBS  |
| <b>2:15-3:00 pm</b><br>45 min.      | Student Handbook/General<br>PPVM Questions/Wrap up | Renee McFee   | 103 VBS  |
| <b>End of Day</b>                   |  |   |  |







## STANDARD 7. ADMISSION

### ISU

#### **7.1. State the minimum requirements for admission.**

Students apply to ISU CVM through the VMCAS. Minimum requirements for admission are: 1) cumulative undergraduate GPA of 2.50 on a 4.00 scale in all undergraduate coursework, 2) CASPer situational judgement test, 3) completion of required pre-veterinary courses (see below) or their equivalents with a grade of “C” (2.00) or better, and 4) submission of three letters of recommendation. All but two of the required science courses must be completed by the end of the fall term prior to matriculation. Remaining required courses must be completed by the end of the spring term prior to matriculation. All credits to be applied toward pre-veterinary requirements must have been earned at a regionally accredited college or university and taken for a letter or numeric grade. In order to accommodate multiple institutions’ adaptations to grading as a result of COVID-19, coursework taken Pass/Fail in Winter/Spring 2020 through Spring 2021 also fulfilled the requirement if completed with a grade of “Pass.” More detail can be found at <http://vetmed.iastate.edu/students/future-dvm-students/apply-college>. Foundational Course Requirements can be found here: <http://vetmed.iastate.edu/student/future-dvm-students/apply-to-the-college/pre-veterinary-requirements/course>, and are:

|   |                              |
|---|------------------------------|
| English Composition                     | 6 sem/9 qtr credit hours     |
| Oral Communication                      | 3 sem/4-5 qtr credit hours   |
| General Chemistry*                      | 7 sem/11-12 qtr credit hours |
| Organic Chemistry*                      | 4 sem/6 qtr credit hours     |
| Biochemistry*                           | 3 sem/4 qtr credit hours     |
| Physics*                                | 4 sem/6 qtr credit hours     |
| General Biology*                        | 8 sem/12 qtr credit hours    |
| Genetics*                               | 3 sem/4-5 qtr credit hours   |
| Mammalian Anatomy and/or Physiology*    | 3 sem/4-5 qtr credit hours   |
| Upper-Level Biomedical Courses*         | 9 sem/13-14 qtr credit hours |
| Arts, Humanities and/or Social Sciences | 6 sem/9 qtr credit hours     |
| Electives                               | 8 sem/12 qtr credit hours    |

\*Science requirement - These courses are used to calculate the required science GPA.

#### **7.2. Describe the student recruitment and selection process, including measures to enhance diversity and minimize bias within the process.**

Applicants to ISU CVM are selected and admitted as Iowa residents, participants in the college’s contract with North Dakota, non-residents not participating in a contract program (non-resident, non-contract (NRNC)), or through one of three early application programs: 1) the ISU Production Animal – Veterinary Early Acceptance Program (PA-VEAP), 2) the U.S-China Joint DVM program, or 3) Cooperative Degree Program with National Chung-Hsing University (NCHU) in Taiwan. Students in the US-China or NCHU programs are admitted as non-resident non-contract (NRNC) students, and students in the VEAP program are admitted as either residents or NRNC students, depending on their state of residency.

Each application for those applying as Iowa residents, North Dakota contract participants, non-resident non-contract, US-China Joint DVM program participants, or participants in the NCHU program is reviewed by two reviewers using the admissions rubric developed by the Admissions Committee (*see Appendix 7.2*). All reviewers are either trained paid reviewers or members of the Admissions Committee.

#### **Admissions process for the PA-VEAP Program:**

The PA-VEAP program is an early acceptance pipeline program designed to recruit and retain future veterinarians with a specific interest in practicing production animal medicine, particularly in underserved

areas. This program was developed in 2023 and will begin accepting undergraduates in Fall 2024. To be eligible for the PA-VEAP program, applicants must:

- Be a current undergraduate student enrolled at Iowa State University majoring in Animal or Dairy Science through the Department of Animal Science.
- Be currently enrolled in one of the following undergraduate certificate programs:
  - Beef Cattle Production Management
  - Dairy Cattle Production Management
  - Poultry Production Management
  - Swine Production Management
- Have completed (at ISU) or are currently enrolled in the following classes at ISU:
  - Principles of Biology I or II with lab (BIOL 211 and 211L or BIOL 212 and 212L; 4 credits)
  - General Chemistry I with lab (CHEM 177 and 177L; 5 credits)
- Have earned a minimum GPA of 3.4 in classes completed at ISU

Applicants to the ISU PA-VEAP are initially reviewed and selected by an admissions committee comprised of: 1) a representative of the ISU Department of Veterinary Diagnostic and Production Animal Medicine, 2) a representative of the ISU Department of Animal Science, 3) a representative from the ISU CVM Admissions Committee or a person appointed by that committee, 4) a food animal predominant veterinary practitioner, and 5) an industry representative.

The PA-VEAP program committee considers the following criteria when selecting applicants: 1) interest in production animal medicine, 2) experience with production animal medicine, 3) academic record, 4) work experience, 5) communication skills, and 6) personal growth and development. The PA-VEAP admissions committee employs a rubric very similar to the one used by the ISU CVM Admissions Committee (*see Appendix 7.2*) with the following modifications: 1) it requires reviewers to rate animal experience and veterinary experience separately, and 2) it omits the “Commitment to creating a welcoming environment” and “Special Circumstances” categories.

To remain in the PA-VEAP program as an undergraduate, participants must 1) complete all prerequisite courses for admission to the ISU CVM, completing a minimum of 30 credits per year with no lapse in enrollment, and earning a grade of C or better in all required prerequisite courses, 2) maintain a 3.4 cumulative GPA, 3) complete a 300 level or higher anatomy and physiology course or a similar course pre-approved by PA-VEAP mentor, And 4) complete a minimum of 300 hours of approved food animal experiences. Upon successful completion of the PA-VEAP program, applicants are reviewed by the ISU CVM Admissions Committee as described below, and are admitted if they meet the minimum standard for admission established by the Admissions Committee.

### **Admission process for all applicants:**

Since the last COE review, the Admissions Committee has been reduced in size to six members from 23 members. The six members include five full-time college faculty and a private practitioner. This allows the Admissions Committee to focus on making decisions concerning the best practices to admit a diverse and inclusive class who will be successful at ISU CVM instead of taking a large majority of their time to review applications. The following criteria are used to select applicants for admission:

**The academic review (45% of the overall score)** is performed by OASA staff who review applicant information to determine 1) Science GPA and 2) GPA for last 45 credit hours. These two GPAs are equally weighted to account for 45% of the overall score. An academic cutoff is determined yearly and is currently a 2.80 required science GPA.

**The application review (45% of the overall score)** is based on a detailed rubric used to score non-academic factors such as work and animal experience, essays, letters of reference, special circumstances

(social, economic, family, health), and personal development (leadership, awards, civic and community activities, volunteerism) (*see Appendix 7.2. for complete rubric*). The application review is performed by five trained paid reviewers (each applicant is reviewed by two). These reviewers do not have access to applicants' academic scores.

**The CASPer assessment (10% of overall score)** is a situational judgement test which assesses soft skills and personal characteristics that are hypothesized as necessary for student success in the DVM program. CASPer assesses collaboration, communication, empathy, equity, ethics, motivation, problem solving, professionalism, resilience and self-awareness.

Once the academic and application reviews are completed, the reviewer scores are normalized (using Rasch Analysis) and averaged for each applicant, and used in creating the ranked list of applicants from which the Admissions Committee makes their decision to admit, deny, or place applicants on the alternate list. The Dean reviews the admissions list, and can review the process to ensure it was followed appropriately. However, the Dean does not make individual decisions about whom is admitted. Reviewers can positively or negatively flag a candidate when reviewing, and must accompany a flag with explanatory comments. The positive flag is used for candidates that may have had unique circumstances that impact their trajectory, such as military service, which would contribute to the score for "Special Circumstances" on the rubric (*see Appendix 7.2*). The negative flag is used to alert the committee to something the reviewer may find concerning, particularly a suspicion of academic dishonesty. A negative flag may prompt a reference be called, and based on results of follow-up inquiry, could result in an applicant not being selected for admission. Students not selected for admission can request to have their application reviewed and receive written recommendations for improvements. Applicants may also schedule an in-person or Zoom meeting with admissions staff if they have questions. Group seminars also are held by the recruiter and OASA staff to advise on application and/or resubmission.

Diversity is enhanced in the admissions process by allowing reviewers to identify and flag unique enhancing factors, including cultural background and experiences, personal development, and factors that bring specific experiences or insight to the college. Applicants are also required to make a statement regarding their commitment to creating a welcoming environment. All members of the Admissions Committee, admissions staff, and reviewers complete implicit bias training. The College has made efforts to increase the pipeline for prospective students from underrepresented populations by giving presentations (virtual and in-person) to high schools and colleges across the country in both urban and rural areas. Our new PA-VEAP program was specifically developed to enhance recruitment of students with interest in practicing production animal medicine.

### **7.3. List factors other than academic achievement used as admission criteria.**

The application review and CASPer assessment (outlined above) both assess non-academic achievement. The application review rubric consists of the following factors: 1) Animal/Veterinary/Research experience. Maximum points are gained for 200+ hours of total experience in one or any combination of the three areas, with more weight given to greater levels of responsibility and hands-on involvement. 2) Evidence of responsibility and/or advancement in a paid work setting. 3) References. Reviewers consider preparation for veterinary school and the profession. 4) Essays. Reviewers consider career goals, understanding of the profession, and life experiences that would contribute to the diversity of the profession. 5) Communication skills. Points are awarded for essay quality. 6) Community leadership/honors/awards. Points are awarded for evidence of leadership, initiative, independent problem solving, and regional or national awards. 7) Personal development. Reviewers consider volunteer experience, study abroad, sports, self-initiated experiences, and similar experiences. 8) Special circumstances. Reviewers consider evidence of social, economic, health, or family situation(s) beyond the control of the applicant with significant impact on the student record; unique background that will add a new dimension to the class.

**7.4. Complete Table A. (below)**

**Table A - Applications, offers, and acceptances of admission at ISU CVM.**

| YEAR<br>(Entering) | STATE<br>RESIDENTS |           | NON-<br>RESIDENTS |        | CONTRACT<br>STUDENTS |                | TOTAL    |                   |
|--------------------|--------------------|-----------|-------------------|--------|----------------------|----------------|----------|-------------------|
|                    | A/P*               | O/A*<br>* | A/P               | O/A    | A/P                  | O/A            | A/P      | O/A               |
| 2019               | 138/60             | 66/61     | 1355/56           | 135/56 | 93/37                | 14+(32)/9+(28) | 1586/154 | 215+(32)/126+(28) |
| 2020               | 145/61             | 65/61     | 1436/64           | 100/64 | 104/32               | 12+(26)/6+(26) | 1685/157 | 177+(26)/131+(26) |
| 2021               | 176/61             | 62/61     | 1792/69           | 149/69 | 122/29               | 10+(28)/3+(26) | 1997/159 | 221+(28)/133+(26) |
| 2022               | 189/60             | 63/60     | 1664/69           | 141/69 | 114/30               | 8+(26)/3+(26)  | 1967/158 | 212+(26)/132+(26) |
| 2023               | 216/58             | 63/58     | 1794/66           | 165/66 | 115/34               | 8+(32)/3+(30)  | 2125/158 | 236+(32)/132+(30) |

Note: For purposes of this Table, UNL students are counted as “Contract” students, with UNL numbers indicated in parentheses

\*A/P = Applications/Positions Available

\*\*O/A = Offers Made/Acceptances

**7.5. Describe current plans for assessing the success of the selection process to meet the mission of the college.**

Each year we review our selection process and its success in meeting the mission of the college. We are currently focused on 1) ensuring that admitted applicants are prepared to succeed in our curriculum and 2) reducing barriers for qualified applicants, particularly those in populations that are historically underrepresented in veterinary medicine. We recently completed several case control studies in which we identified factors that were helpful in predicting those who will struggle in our program. Undergraduate GPA, Graduate Record Examination scores (discontinued), reference scores, and self-reported family difficulty were the factors that contributed most meaningfully to predicting student achievement. A detectable but non-significant trend also appeared for the percentage of credit hours taken from a two-year institution. None of these factors were related to underrepresented status in our data, suggesting that adjusting the admissions process to improve student achievement will not have an impact on diversity of the student body. The Admissions Committee is currently evaluating these findings to determine any adjustments to the Admissions process in the coming cycle.

**7.6. Describe your policies and procedures for admitting transfer students who will receive a degree from your institution, and state the number of transfer students admitted per year for the last five years.**

Transfer applications are reviewed by the Assistant Dean of Veterinary Student Success to ensure that applicants will be placed appropriately in our curriculum based on the courses they have completed. The college Academic Standards Committee then reviews each transfer applicant and makes a decision based on academic standing, letters of reference, and available positions in the class. The process is described in full on the college website: <https://vetmed.iastate.edu/future-dvm-students/ready-to-apply/transfer-admissions/>. To be considered for admission, transfer students must have completed similar prerequisites to those required by ISU, and must have been in good academic standing throughout their entire period of enrollment in their current college of veterinary medicine. Equivalency tables are provided on the college website to assist interested transfer students: <https://vetmed.iastate.edu/future-dvm-students/ready-to-apply/transfer-admissions/requirements/>.

The following table shows the number of transfer students accepted per year during the past five years.

| Year              | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------------------|------|------|------|------|------|
| Transfer students | 7    | 10   | 6    | 5    | 10   |







## **Standard 7 – Admission, UNL**

Nebraska students seeking admission to the PPVM apply to the UNL-ISU program via the VMCAS. The admissions criteria are equal to those at ISU. UNL initially screens applicants to determine if they have met the minimum qualifications for admission. This includes a review by the UNL Office of Admissions to ensure that each applicant qualifies as a Nebraska resident. PPVM personnel conduct the academic review, which includes calculation of GPAs and verification of prerequisite coursework. The voting members of the PPVM Admissions Committee (three full time UNL faculty and two practicing Nebraska veterinarians) review and score the applications using an evaluation rubric that is provided by ISU and minimally modified for PPVM applicants. Following academic and application evaluations, the Committee makes recommendations regarding admission and denial of applicants. These recommendations are forwarded to the CASNR Dean and the ISU CVM Dean for final approval. The Deans review the admissions list, and can review the process to ensure the admissions committee followed their admissions process appropriately. However, the Deans do not make individual decisions about whom is admitted.

The PPVM Coordinator, the PPVM Student Services and Curriculum Specialist, and the PPVM Administrative Associate have access to PPVM applicant information in VMCAS. These individuals are responsible for the initial screening of applicants, the academic review, and communicating with applicants throughout the process. The ISU CVM Coordinator of Admissions has access to PPVM applicant information and is consulted whenever PPVM personnel have questions related to the admissions process. The PPVM Coordinator also serves as an ex officio member of the ISU CVM Admissions Committee to ensure ongoing consistency for the admissions process between UNL and ISU.

Appendix 7.2 – Admissions Rubric (Version 5.1.2024)

Iowa State University College of Veterinary Medicine CVM Admissions Committee Evaluation Rubric (Revised 5/1/2024)

| <b>Animal/Vet/Research Experience (0-15 points)</b><br><i>(Excellence in one of these areas or a combination of these areas can be worth 15 pts.)</i> | <b>0 points</b><br><ul style="list-style-type: none"> <li>Only a few personal pets or minimal number of hours of experience with little or no responsibilities.</li> <li>Minimal number of hours of experience.</li> </ul> | <b>1</b>  <b>7 points</b><br><b>Observation Only</b>  <b>Evidence of Active Participation</b><br><b>ANIMAL</b><br><ul style="list-style-type: none"> <li>&lt;200 hours of experience in a business atmosphere – not pets.</li> </ul> <b>VETERINARY</b><br><ul style="list-style-type: none"> <li>&lt;200 hours of experience with a practicing veterinarian (including shadowing).</li> </ul> <b>RESEARCH</b><br><ul style="list-style-type: none"> <li>&lt;200 hours of experience in a research laboratory with responsibilities beyond washing glassware.</li> </ul> | <b>8</b>  <b>15 points</b><br><b>200+ hours of experience (all in one area or any combination of areas)</b>   |
|---|--|---|--|
|   |  |   | <b>ANIMAL</b><br><ul style="list-style-type: none"> <li>Some responsibility for direct management of animals, substantial experience with more than one species. </li> </ul> <b>VETERINARY</b><br><ul style="list-style-type: none"> <li>Evidence of increasing responsibilities and assistance with routine problems, some individual responsibilities within the experience. </li> </ul> <b>RESEARCH</b><br><ul style="list-style-type: none"> <li>Some responsibility for specific project(s), papers and/or presentation. </li> </ul> |
| <b>Work experience for pay (0-10 pts)</b><br>(Any work experience for pay. Includes animal, veterinary, and research experience for pay.)             | <b>0 points</b><br>No work experience and no animal, veterinary, and research experience for pay.  | <b>1-4 points</b><br>Limited work experience, entry-level positions or summers only.  | <b>5-7 points</b><br>Worked while in college and some entry-level position or evidence of increasing responsibilities.   |
|   |  |   | <b>ANIMAL</b><br>Owner/operator/manager of livestock operation, kennel, stable, cattery or zoo. Experience with several species.   |
|   |  |   | <b>VETERINARY</b><br>Sustained paid experience with practicing veterinarian with evidence of increasing responsibilities. Specific assigned duties done without supervision. Experience with several species/clinics.  |
|   |  |   | <b>RESEARCH</b><br>Responsible for management of specific project(s), several papers or presentations.   |
|   |  |   | <b>8-10 points</b><br>Sustained work experience with promotions or significant responsibilities in non entry-level positions and/or substantial supervisory experience.  |



|  |   |   |  |   |
|--|---|---|--|---|
| <p><b>References (0-20 points)</b></p>   | <p><b>0-2 points</b><br/>Indicates applicant is not suited for veterinary profession.</p>   | <p><b>3-8 points</b><br/>Indicates some knowledge of applicant but offers only generic information.</p>   | <p><b>9-14 points</b><br/>Knows applicant and speaks to the applicant's qualities with examples.</p>   | <p><b>15-20 points</b><br/>Knows applicant very well, speaks to the applicant's qualities with examples and indicates how they are they are an above average candidate.</p>   |
| <p><b>Personal statement (0-15 points)</b></p>   | <p><b>0-3 points</b><br/>Unclear explanation of why they are interested in/want to pursue vet med, did not address direction or goals</p> | <p><b>4-6 points</b><br/>Minimal explanation of interest and why they want to pursue vet med, minimal direction or goals</p>  | <p><b>7-11 points</b><br/>Acceptable explanation of interest and why they are pursuing vet med, some sense of direction or goals</p>   | <p><b>12-15 points</b><br/>Excellent explanation of interest and why they are pursuing vet med. Clear sense of direction goals. Memorable essay.</p>  |
| <p><b>Commitment to Creating a Welcoming Environment (0-5 points)</b></p> <p>The AVMA strives to educate its members regarding the value of diversity within businesses and workplaces, and its role in improving animal and human health and advancing the veterinary medical profession in an ever-changing world. As an AVMA accredited institution, Iowa State University shares this goal and seeks to contribute to an environment where all people are valued, appreciated, and respected. In your statement, please indicate how your experiences, activities and academic work demonstrate your ability and desire to contribute to an environment consistent with these goals. <b>(0-5 points)</b></p> | <p><b>0 points</b><br/>Did not answer question.</p>   | <p><b>1-2 points</b><br/>The applicant demonstrates minimal experiences, activities and academic work that promotes an environment where all people are valued, appreciated and respected and does not elaborate on how they will contribute to this environment.</p> | <p><b>3-4 points</b><br/>The applicant is active in one or more clubs, groups, events, or self-education that promote an environment where all people are valued, appreciated and respected. Elaborates on how they will contribute to this environment.</p> | <p><b>5 points</b><br/>Applicant shows outstanding commitment to promoting an environment where all people are valued, appreciated and respected through multiple activities, including demonstrated leadership and/or delves into how their experiences will contribute to this environment.</p> |
| <p><b>Communication Skills (0-10 points)</b></p>   | <p><b>0 points</b><br/>Poor written communication skills, poorly organized, many errors.</p>  | <p><b>1-5 points</b><br/>Acceptable written communication skills, some errors, organization could be improved.</p>  | <p><b>5-7 points</b><br/>Good written communication skills, few errors, good organization, understandable.</p>   | <p><b>8-10 points</b><br/>Outstanding written communication skills, well organized essays, no spelling or grammatical errors.</p>   |

|   |  |   |  |  |
|---|--|---|--|--|
| <p><b>Community/leadership/extracurricular activities/honors/awards</b><br/>(0-10 points) (Consider the amount of time and effort, not just total number of clubs or positions. Weight based on time allotted to activity (a travelling competitive team may warrant more points than leading a club with minimal activities, e.g.)</p> | <p><b>0-1 points</b><br/>Little or no participation in clubs, organizations or activities and/or no honors or awards.</p>        | <p><b>2-4 points</b><br/>Participant in clubs, organization or activities but held no leadership positions and/or minimal honors or awards.</p> | <p><b>5-7 points</b><br/>Participant in more than one club, organization or activity and held at least one leadership position and/or several honors or awards.</p>  | <p><b>8-10 points</b><br/>Either involved in several clubs, organizations or activities and held multiple leadership positions OR very heavy involvement in one or more clubs, organizations, and activities and/or many honors or awards.</p> |
| <p><b>Personal development</b><br/>(0-5 points)</p>   | <p><b>0 points</b><br/>No evidence of personal development initiatives.</p>  | <p><b>1-2 points</b><br/>Some personal development activities but limited to the realm of academics and work.</p>                               | <p><b>3-4 points</b><br/>Some evidence of initiatives to improve self beyond academics and work such as travel including study abroad or organized trips, volunteering for various organizations (Habitat for Humanity, Red Cross, etc), striving to excel in a hobby such as particular sport or craft.</p> | <p><b>5 points</b><br/>Clear evidence of self-initiated personal development experiences. Definite quest to learn of things outside their normal realm.</p>  |
| <p><b>Special circumstances</b><br/>(0-5 points)</p>  | <p><b>0 points</b><br/>None.</p>   | <p><b>1-2 points</b><br/>Change of careers or financial hardship.</p>   | <p><b>3-4 points</b><br/>Dysfunctional family, health issues, financial hardship, or other similar life hardships that the applicant has faced.</p>  | <p><b>5 points</b><br/>Combination of special circumstance hardships and unique enhancing factors.</p>   |
| <p><b>Overall Assessment of the Applicant</b><br/>(Your estimate of the overall likelihood of the applicant's success in the curriculum and their influence on the ISU/CVM veterinary profession.)<br/>(0-5 points)</p>   | <p><b>0 points</b><br/>Low likelihood to remain in ISU CVM program or to contribute positively to the veterinary profession.</p> | <p><b>1-2 points</b><br/>Does not stand out from other candidates. May contribute positively and/or uniquely to the veterinary profession.</p>  | <p><b>3-4 points</b><br/>Evidence of potential to excel in the ISU CVM curriculum and/or to contribute positively and/or uniquely to the veterinary profession.</p>  | <p><b>5 points</b><br/>Extremely likely to excel in ISU CVM curriculum. Will contribute positively and uniquely to the veterinary profession.</p>  |



STANDARD 8  
FACULTY

## STANDARD 8. FACULTY

*8.1 Complete Tables A and B. Assess the strengths of the faculty and support staff in fulfilling the college mission.*

**Table A – Loss and recruitment of faculty (both tenure track & clinical track/equivalent). Data for past 5 years (FY 2020 – FY 2024 covering July 1, 2019 – June 30, 2024)**

| DEPT.        | LOST |  | RECRUITED |  | Year    |
|--------------|------|--|-----------|--|---------|
|              | #    | DISCIPLINE/SPECIALTY   | #         | DISCIPLINE/SPECIALTY   |         |
| BMS          | 4    | Molecular and Cell Biology (3)<br>Pharmacology   | 3         | Anatomy<br>Molecular and Cell Biology<br>Vaccinology   | FY 2024 |
| VCS          | 4    | Equine Internal Medicine<br>Equine Surgery/Hospital Director<br>Internal Medicine/Translational Health<br>Soft Tissue Surgery - Small Animal | 5         | Emergency/Critical Care - Small Animal<br>Equine Emergency Surgery<br>Ophthalmology<br>Primary Care (2)  | FY 2024 |
| VDPAM        | 1    | Diagnostic Pathology   | 3         | Dairy Production Medicine<br>Food Animal Medicine and Surgery<br>Diagnostic Pathology  | FY 2024 |
| VMPM         | 0    |  | 1         | Infectious Disease and Immunology  | FY 2024 |
| VPTH         | 1    | Anatomic Pathology   | 3         | Anatomic Pathology (3)   | FY 2024 |
| UNL<br>SVMBS | 1    | Anatomic pathology   | 1         | Virology   | FY 2024 |
| BMS          | 1    | Anatomy  | 1         | Anatomy  | FY 2023 |
| VCS          | 6    | Anesthesia<br>Clinical Trials<br>Emergency Critical Care - Small Animal<br>Equine Internal Medicine<br>Primary Care<br>Ultrasonography       | 5         | Anesthesiology (3)<br>Emergency/Critical Care - Small Animal<br>Primary Care   | FY 2023 |
| VDPAM        | 3    | Diagnostic Pathology (2)<br>Theriogenology   | 2         | Diagnostic Pathology<br>Food Animal Medicine and Surgery   | FY 2023 |
| VMPM         | 2    | Bacteriology<br>Microbiology and Antimicrobial Resistance  | 0         |  | FY 2023 |
| VPTH         | 3    | Anatomic Pathology (3)   | 2         | Anatomic Pathology<br>Clinical Pathology   | FY 2023 |
| UNL<br>SVMBS | 2    | Anatomic pathology<br>Clinical veterinary practice   | 1         | Anatomic pathology   | FY 2023 |
| BMS          | 4    | Molecular and Cell Biology<br>Neuroscience (3)   | 0         |  | FY 2022 |
| VCS          | 4    | Equine Surgery<br>Oncology - Medicine<br>Orthopedic Surgery - Small Animal<br>Small Animal Internal Medicine                                 | 9         | Anesthesiology<br>Emergency/Critical Care - Small Animal<br>Equine Emergency Surgery<br>Equine Internal Medicine<br>Oncology - Medicine<br>Oncology - Radiation<br>Radiology<br>Small Animal Internal Medicine<br>Equine Surgery/Hospital Director | FY 2022 |
| VDPAM        | 3    | Food Animal Medicine and Surgery (2)<br>Swine Production Medicine  | 4         | Analytic Chemistry<br>Diagnostic Pathology   | FY 2022 |

|              |    |   |    |  |         |
|--------------|----|---|----|--|---------|
|              |    |   |    | Food Animal Medicine and Surgery<br>Epidemiology   |         |
| VMPM         | 0  |   | 0  |  | FY 2022 |
| VPTH         | 2  | Anatomic Pathology<br>Clinical Pathology  | 0  |  | FY 2022 |
| UNL<br>SVMBS | 2  | Virology<br>Clinical veterinary practice  | 2  | Anatomic pathology<br>Clinical veterinary practice   | FY 2022 |
| BMS          | 1  | Pharmacology  | 0  |  | FY 2021 |
| VCS          | 8  | Anesthesia (2)<br>Clinical Skills Lab Coordinator<br>Equine Surgery<br>Ophthalmology<br>Soft Tissue Surgery - Small Animal<br>Surgery - Small Animal<br>Teaching Assessment | 8  | Community Outreach<br>Dermatology<br>Ophthalmology<br>Soft Tissue Surgery - Small Animal<br>(3)<br>Ultrasonography<br>Equine Medicine/Dept Chair                 | FY 2021 |
| VDPAM        | 5  | Analytic Chemistry<br>Diagnostic Pathology (3)<br>Food Animal Medicine and Surgery  | 7  | Analytic Chemistry<br>COVID-19 and One Health<br>Diagnostic Pathology (2)<br>Epidemiology<br>Food Animal Medicine and Surgery<br>Food Animal Ambulatory Medicine | FY 2021 |
| VMPM         | 1  | Bacteriology  | 0  |  | FY 2021 |
| VPTH         | 0  |   | 0  |  | FY 2021 |
| UNL<br>SVMBS | 2  | Administration (director)<br>Epidemiology   | 2  | Administration (director)<br>Physiology  | FY 2021 |
| BMS          | 1  | Biomedical Sciences   | 0  |  | FY 2020 |
| VCS          | 8  | Cardiology<br>Equine Internal Medicine<br>Exotics and Primary Care<br>Ophthalmology<br>Radiology (2)<br>Soft Tissue Surgery - Small Animal<br>Theriogenology                | 6  | Anesthesia<br>Emergency Equine Surgery<br>Equine Field Services<br>Equine Internal Medicine (2)<br>Equine Internal Medicine/Field<br>Services                    | FY 2020 |
| VDPAM        | 4  | Diagnostic Pathology/Toxicology<br>Epidemiology<br>Food Animal Ambulatory Medicine<br>Toxicology/Nutrition  | 9  | Bacteriology<br>Diagnostic Pathology (3)<br>Food Animal Ambulatory Medicine<br>Swine Production Medicine<br>Serology<br>Theriogenology (2)                       | FY 2020 |
| VMPM         | 0  |   | 0  |  | FY 2020 |
| VPTH         | 1  | Clinical Pathology  | 3  | Anatomic Pathology<br>Clinical Pathology (2)   | FY 2020 |
| UNL<br>SVMBS | 1  | Administration (director)   | 3  | Anatomic pathology<br>Clinical veterinary practice (2)   | FY 2020 |
| TOTAL        | 75 |   | 80 |  |         |

**Table B.1 – ISU CVM staff support for teaching and research**

| AREA                  | FTE CLERICAL | FTE TECHNICAL | OTHER  |
|-----------------------|--------------|---------------|--------|
| CLINICAL TEACHING     | 6.25         | 77.05         | 52     |
| NON-CLINICAL TEACHING | 0.65         | 5.28          | 0.2    |
| RESEARCH              | 10.445       | 29.2          | 30.325 |
| TOTAL                 | 17.345       | 111.53        | 82.525 |



**Table B.2 – UNL SVMBS staff support for teaching and research**

| AREA                  | FTE CLERICAL | FTE TECHNICAL | OTHER |
|-----------------------|--------------|---------------|-------|
| CLINICAL TEACHING     | 2            | 2             | 1     |
| NON-CLINICAL TEACHING | 6.25         | 2.25          | 0     |
| RESEARCH              | 2.25         | 3.25          | 5     |
| TOTAL                 | 10.5         | 7.5           | 6     |

While the college mission is broad, we focus on hiring faculty and staff who advance veterinary and translational education, outreach, and discovery, and fulfill the Land Grant University mission for the benefit of the State of Iowa, especially related to the animal health economy. The overwhelming majority of our faculty are full-time, and, therefore, fully engaged in the work of the college. While recruiting and retaining faculty in academia is always a challenge, turnover at the ISU CVM has been decreasing for the past several years. Turnover has netted 4 additional faculty headcounts over the last five years during (67 lost and 71 gained), and was only 5% in FY 2024, remaining well within acceptable limits for the college to meet its missions and gaining momentum on lower faculty turnover per year. Current faculty and support staff numbers and expertise are adequate to provide a high-quality education across a broad spectrum of veterinary medicine including all areas required by the COE.

**8.2 Complete Table C with the number of faculty in each category.** See Tables C.1 (ISU) and C.2 (UNL)

**8.3 Complete Table D with names of faculty in the college, by department, as well as faculty from outside the college who have a substantial teaching commitment to the DVM program.** (See Table D)

**8.4 Assess the challenges for your college in maintaining faculty numbers and quality.**

ISU: Competition with private sector salaries can be a challenge for faculty hiring. However, the ISU CVM attempts to be competitive with salary and benefits compared to other CVMs. ISU CVM faculty annual salaries exceed the national average for veterinary colleges by approximately \$10,000, an advantage that is magnified by the relatively modest cost of living in Ames. Additionally, ISU and the ISU CVM have a supportive infrastructure for hiring and retention, including excellent benefits (<https://hr.iastate.edu/employee-benefits>), modern CVM facilities, dual career policies/resources, a welcoming collegial workplace, and clearly defined career advancements plans for tenure and term track advancement.

UNL: The UNL SVMBS salaries are competitive with peer institutions and departments as well as salary for comparable positions in North American CVMs. The cost of living in the greater Lincoln area is modest and the quality of life is generally good. The entire UNL and IANR system have strong personnel services support. This support includes career support, spousal programs, and career advancement tracks for tenure-leading and term faculty appointments. The UNL SVMBS has strong facilities support and excellent teaching resources.

**8.5 Provide information on the loss (what discipline/specialty) and recruitment of faculty (Table A).**

ISU: As seen in Table A, the number of faculty lost and gained in the reporting period is roughly equivalent (67 lost and 71 gained). We have largely been successful in hiring faculty across all desired areas of expertise; consistent with nationwide trends, we continue to seek additional faculty in key areas such as radiology. Recent efforts to improve faculty recruitment and retention include enrichment of mentorship programs for early-career faculty (particularly in VCS) and enacting policies to compensate clinical faculty if external circumstances result in clinical weeks on duty in excess of contractual specifications.



**Table C.1 – ISU CVM Faculty Table by Rank and Highest Level of Education**

| Title                         | Bachelors Only | Masters | Non-DVM Doctorate | DVM **Only | DVM + Masters | DVM + Doctorate | DVM + Board Certified | DVM + Board Certified + Masters | DVM + Board Certified + Doctorate |
|-------------------------------|----------------|---------|-------------------|------------|---------------|-----------------|-----------------------|---------------------------------|-----------------------------------|
| Administrator                 | 0              | 0       | 4                 | 0          | 0             | 2               | 1                     | 1                               | 3                                 |
| Professor*                    | 0              | 0       | 12                | 1          | 2             | 6               | 6                     | 4                               | 13                                |
| Associate Professor*          | 0              | 1       | 5                 | 1          | 2             | 5               | 5                     | 7                               | 5                                 |
| Assistant Professor*          | 0              | 1       | 5                 | 5          | 2             | 7               | 18                    | 14                              | 6                                 |
| Instructor                    | 0              | 0       | 0                 | 0          | 0             | 0               | 0                     | 0                               | 0                                 |
| Lecturer                      | 0              | 0       | 0                 | 0          | 0             | 0               | 0                     | 0                               | 0                                 |
| Part-time Faculty (<75% time) | 0              | 0       | 1                 | 4          | 0             | 2               | 0                     | 1                               | 0                                 |

\*include all 'track' types – for example, tenure track, non-tenure track, clinical track, practice track, research track  
 \*\*DVM or equivalent – for example, VMD, BVSc, BVMS

\*this includes all non-tenure-eligible track faculty inclusive of research, teaching, clinical, and adjunct at this rank.

**Table C.2 – UNL SVMBS Faculty Table by Rank and Highest Level of Education**

| Title                         | Bachelors Only | Masters | Non-DVM Doctorate | DVM **Only | DVM + Masters | DVM + Doctorate | DVM + Board Certified | DVM + Board Certified + Masters | DVM + Board Certified + Doctorate |
|-------------------------------|----------------|---------|-------------------|------------|---------------|-----------------|-----------------------|---------------------------------|-----------------------------------|
| Administrator                 |                |         |                   |            |               | 0.4             |                       |                                 | 2.1                               |
| Professor*                    |                |         | 8                 |            |               | 2               |                       |                                 | 3                                 |
| Associate Professor*          |                |         | 2                 |            |               | 3.6             |                       |                                 | 0.9                               |
| Assistant Professor*          |                |         | 2                 | 1          | 3             | 1               | 1                     |                                 | 3                                 |
| Instructor                    |                |         |                   |            |               |                 |                       |                                 |                                   |
| Lecturer                      |                |         |                   |            |               |                 |                       |                                 |                                   |
| Part-time Faculty (<75% time) |                |         |                   |            |               |                 |                       |                                 |                                   |

\*include all 'track' types – for example, tenure track, non-tenure track, clinical track, practice track, research track  
 \*\*DVM or equivalent – for example, VMD, BVSc, BVMS

\*this includes all non-tenure-eligible track faculty inclusive of research, teaching, clinical, and adjunct at this rank.

**Table D – ISU CVM and UNL SVMBS Faculty Table by Department**

| Department (Group by Department) | Name                      | Rank                         | Classification (Tenure/ Non-Tenure/ Other Classification) | DVM** (Year Graduated) | Education (Degrees)                               | Board Certification(s) (Certifying Bodies/Colleges) | Area of Expertise              | FTE with college | % Teaching**                              |
|----------------------------------|---------------------------|------------------------------|---|------------------------|---|---|--------------------------------|------------------|---|
| BMS                              | Alan Robertson            | Associate Professor          | Tenure  |                        | PhD   |   | Pharmacology                   | 1                | 30%                                       |
| BMS                              | Carrie Berg               | Associate Teaching Professor | Term  | 2004                   | DVM   |   | Physiology                     | 0.8              | 95%                                       |
| BMS                              | David Starling            | Associate Teaching Professor | Term  | 1975                   | DVM   |   | Aquatic medicine               | 0.5              | 90%                                       |
| BMS                              | Eric Rowe                 | Associate Professor          | Tenure  | 1999                   | DVM, PhD  |   | Anatomy                        | 1                | 85%                                       |
| BMS                              | Greg Martin               | Assistant Professor          | Tenure  |                        | Ph.D  |   | Structural biology             | 1                | 20%                                       |
| BMS                              | Joshua Beck               | Assistant Professor          | Tenure  |                        | PhD   |   | Cell biology                   | 1                | 20%                                       |
| BMS                              | Karl Bolser               | Teaching Professor           | Term  | 1990                   | DVM   |   | Primary care                   | 0.75             | 95%                                       |
| BMS                              | M. Heather Greenlee       | Professor                    | Tenure  |                        | PhD   |   | Neuroscience                   | 1                | 40%                                       |
| BMS                              | Michael Cho               | Professor                    | Tenure  |                        | PhD   |   | Vaccinology                    | 1                | 15%                                       |
| BMS                              | Michael Kimber            | Department Chair             | Tenure  |                        | PhD   |   | Parasitology                   | 1                | 45%                                       |
| BMS                              | Michael Lyons             | Teaching Professor           | Term  |                        | MA, PhD   |   | Physiology                     | 1                | 85%                                       |
| BMS                              | Philip Onyono Nyakego     | Assistant Teaching Professor | Term  |                        | MSc   |   | Anatomy                        | 1                | 95%                                       |
| BMS                              | Ravindra Singh            | Professor                    | Tenure  |                        | MSc, PhD  |   | Genetic disease                | 1                | 15%                                       |
| BMS                              | Richard Martin            | Distinguished Professor      | Tenure  | 1972                   | BVSc, PhD, MRCVS, Diploma in Neurophysiology, DSc | ECVPT   | Pharmacology                   | 1                | 30%                                       |
| BMS                              | Steve Carlson             | Associate Professor          | Tenure  | 1990                   | DVM, PhD  |   | Pharmacology                   | 1                | 70%                                       |
| BMS                              | Sudhir Kumar              | Assistant Professor          | Tenure  |                        | Ph.D  |   | Cell biology                   | 1                | 20%                                       |
| BMS                              | Thimmasettapp Thippeswamy | Professor                    | Tenure  | 1985                   | BVSc, MVSc, PhD, PG-Cert HE                       |   | Neuroscience                   | 1                | 60%                                       |
| BMS                              | Timothy Day               | University Professor         | Tenure  |                        | MS, PhD   |   | Pharmacology                   | 1                | 20%                                       |
| BMS                              | Vlastislav Bracha         | Professor                    | Tenure  |                        | PhD, RNDr   |   | Physiology                     | 1                | 85%                                       |
| VCS                              | Albert Jergens            | Professor                    | Tenure  | 1983                   | DVM, MS, PhD                                      | ACVIM-SAIM  | Small Animal Internal Medicine | 1                | Teaching – 10%<br>Clinical Practice – 35% |
| VCS                              | Allison Kenzig            | Clinical Assistant Professor | Term  | 2013                   | DVM   | ACVS-SA   | Small Animal Surgery           | 1                | Teaching – 25%<br>Clinical Practice – 65% |
| VCS                              | Andy Law                  | Clinical Assistant Professor | Term  | 2008                   | BVetMed   | ACVS-SA   | Small Animal Surgery           | 1                | Teaching – 10%<br>Clinical Practice – 70% |
| VCS                              | April Blong               | Clinical Associate Professor | Term  | 2009                   | DVM   | ACVECC  | Emergency/Critical Care        | 1                | Teaching – 10%<br>Clinical Practice – 75% |
| VCS                              | Ashley McCann             | Clinical Assistant Professor | Term  | 2012                   | DVM   |   | Primary Care                   | 1                | Teaching – 5%<br>Clinical Practice – 85%  |
| VCS                              | Beatrice Sponseller       | Clinical Professor           | Term  | 1996                   | Dr med vet  | ABVP-equine   | Equine Field Services          | 1                | Teaching – 10%<br>Clinical Practice – 75% |

|     |                         |                              |        |      |          |                        |                                    |     |   |
|-----|-------------------------|------------------------------|--------|------|----------|------------------------|------------------------------------|-----|---|
| VCS | Bill Williams           | Clinical Assistant Professor | Term   | 1995 | DVM      |                        | Primary Care                       | 0.2 | Teaching – 0%<br>Clinical Practice – 100% |
| VCS | Bonnie Kraus            | Associate Professor          | Tenure | 1989 | DVM      | ACVS, ACVAA            | Anesthesiology                     | 1   | Teaching – 25%<br>Clinical Practice – 40% |
| VCS | Brandon Wahler          | Assistant Professor          | Tenure | 2016 | DVM, MS  | ACVAA                  | Anesthesiology                     | 1   | Teaching – 15%                            |
| VCS | Brenda Mulherin         | Clinical Professor           | Tenure | 2002 | DVM      | AVDC                   | Dentistry                          | 1   | Teaching – 5%<br>Clinical Practice – 65%  |
| VCS | Brett Sponseller        | Associate Professor          | Tenure | 1994 | DVM, PhD | ACVIM                  | Equine Medicine                    | 1   | Teaching – 30%<br>Clinical Practice – 20% |
| VCS | Brian Collins           | Clinical Assistant Professor | Term   | 2010 | DVM      |                        | Clinical Skills                    | 1   | Teaching – 80%<br>Clinical Practice – 5%  |
| VCS | Christine Lopp-Schurter | Clinical Assistant Professor | Term   | 2011 | DVM      | ACVS-LA                | Equine Surgery                     | 1   | Teaching – 25%<br>Clinical Practice – 60% |
| VCS | Craig Willette          | Clinical Assistant Professor | Term   | 2018 | DVM, MS  | ACVAA                  | Anesthesiology                     | 1   | Teaching – 15%<br>Clinical Practice – 65% |
| VCS | Darren Berger           | Associate Professor          | Tenure | 2007 | DVM      | ACVD                   | Dermatology                        | 1   | Teaching – 15%<br>Clinical Practice – 40% |
| VCS | David Wong              | Professor                    | Tenure | 1997 | DVM, MS  | ACVIM, ACVECC          | Equine Medicine                    | 1   | Teaching – 0%<br>Clinical Practice – 20%  |
| VCS | Emily Wheeler           | Assistant Professor          | Tenure | 2017 | DVM      | ACVAA                  | Anesthesiology                     | 1   | Teaching – 20%<br>Clinical Practice – 50% |
| VCS | Erin McQuinn            | Clinical Assistant Professor | Term   | 2013 | DVM      | ACVIM-SAIM             | Small Animal Internal Medicine     | 1   | Teaching – 10%<br>Clinical Practice – 65% |
| VCS | Gretta Albrecht         | Clinical Assistant Professor | Term   | 2012 | DVM, MPH |                        | Primary Care                       | 1   | Teaching – 5%<br>Clinical Practice – 85%  |
| VCS | Jackie Willette         | Clinical Assistant Professor | Term   | 2018 | DVM      | ACVS                   | Equine Emergency                   | 1   | Teaching – 25%<br>Clinical Practice – 65% |
| VCS | James Noxon             | Morrill Professor            | Tenure | 1976 | DVM      | ACVIM-SAIM             | Dermatology                        | 1   | Teaching – 30%<br>Clinical Practice – 20% |
| VCS | Jamie Kopper            | Assistant Professor          | Tenure | 2013 | DVM, PhD | ACVIM, ACVECC          | Equine Medicine                    | 1   | Teaching – 10%<br>Clinical Practice – 40% |
| VCS | Jarrod Troy             | Assistant Professor          | Tenure | 2014 | DVM      | ACVS                   | Equine Surgery                     | 1   | Teaching – 10%<br>Clinical Practice – 50% |
| VCS | Jason Pieper            | Assistant Professor          | Tenure | 2009 | DVM, MS  | ACVD                   | Dermatology                        | 1   | Teaching – 10%<br>Clinical Practice – 60% |
| VCS | Jean-Sebastien Palerne  | Associate Professor          | Tenure | 2008 | DVM, MSc | ACVIM-SAIM             | Small Animal Internal Medicine     | 1   | Teaching – 10%<br>Clinical Practice – 60% |
| VCS | Jennifer Scaccianoce    | Clinical Assistant Professor | Term   | 2010 | DVM      | ACVPM                  | Primary Care                       | 1   | Teaching – 5%<br>Clinical Practice – 85%  |
| VCS | Jessica Ward            | Associate Professor          | Tenure | 2011 | DVM      | ACVIM-Cardiology       | Cardiology                         | 1   | Teaching – 10%<br>Clinical Practice – 30% |
| VCS | Jesus Diaz Bujan        | Clinical Assistant Professor | Term   | 2010 | MVetMed  | ECVO                   | Ophthalmology                      | 1   | Teaching – 5%<br>Clinical Practice – 70%  |
| VCS | Joan Howard             | Clinical Associate Professor | Term   | 1989 | VMD      | ABVP-equine            | Equine Field Services              | 1   | Teaching – 10%<br>Clinical Practice – 80% |
| VCS | Joyce Carnevale         | Clinical Associate Professor | Term   | 1990 | DVM, MS  | ABVP-Canine and Feline | Shelter Med and Surgical Education | 1   | Teaching – 60%<br>Clinical Practice – 15% |

|       |                             |                              |        |      |          |                                     |  |  |      |   |
|-------|-----------------------------|------------------------------|--------|------|----------|-------------------------------------|--|--|------|---|
| VCS   | Julie Riha                  | Clinical Assistant Professor | Term   | 2014 | DVM      |                                     |  | Shelter Med and Surgical Education                 | 1    | Teaching – 86%<br>Clinical Practice – 10% |
| VCS   | June Olds                   | Clinical Assistant Professor | Term   | 2003 | DVM      | ACZM                                |  | Zoological Medicine                                | 1    | Teaching – 80%<br>Clinical Practice – 0%  |
| VCS   | Kara Frenichs               | Clinical Assistant Professor | Term   | 2017 | DVM      |                                     |  | Equine Field Services                              | 0.5  | Teaching – 5%<br>Clinical Practice – 90%  |
| VCS   | Karl Kraus                  | Professor                    | Tenure | 1985 | DVM, MS  | ACVS, ABVP                          |  | Small Animal Surgery                               | 1    | Teaching – 15%<br>Clinical Practice – 45% |
| VCS   | Keiko Murakami              | Assistant Professor          | Tenure | 2005 | BVM, MS  | ACVIM-Oncology, ACVR-Radiation Onco |  | Oncology   | 1    | Teaching – 5%<br>Clinical Practice – 60%  |
| VCS   | Kevin Kersh                 | Clinical Professor           | Term   | 2001 | DVM      | ACVS-LA                             |  | Equine Surgery                                     | 1    | Teaching – 10%<br>Clinical Practice – 65% |
| VCS   | Kristina Miles              | Associate Professor          | Tenure | 1983 | DVM, MS  | ACVR                                |  | Diagnostic Imaging                                 | 1    | Teaching – 45%<br>Clinical Practice – 49% |
| VCS   | Laura Van Vertloo           | Assistant Professor          | Tenure | 2010 | DVM, MS  | ACVIM-SAIM                          |  | Small Animal Internal Medicine                     | 0.75 | Teaching – 20%<br>Clinical Practice – 50% |
| VCS   | LeAnn Anderson              | Clinical Assistant Professor | Term   | 2007 | DVM      |                                     |  | Primary Care / Shelter Med and Surgical Education  | 1    | Teaching – 75%<br>Clinical Practice – 15% |
| VCS   | Margaret Musser             | Associate Professor          | Tenure | 2010 | DVM      | ACVIM-Oncology                      |  | Oncology   | 1    | Teaching – 5%<br>Clinical Practice – 60%  |
| VCS   | Maria Dolores Vegas Comitre | Clinical Assistant Professor | Term   | 2011 | MVetMed  | EBVS                                |  | Emergency/Critical Care                            | 1    | Teaching – 5%<br>Clinical Practice – 70%  |
| VCS   | Masako Fujiyama             | Clinical Assistant Professor | Term   | 2014 | BVM, MS  | ACVAA                               |  | Anesthesiology                                     | 1    | Teaching – 15%<br>Clinical Practice – 65% |
| VCS   | Melissa A. Kubai            | Assistant Professor          | Tenure | 2008 | DVM, MS  | ACVO                                |  | Ophthalmology                                      | 1    | Teaching – 10%<br>Clinical Practice – 60% |
| VCS   | Melissa Tropf               | Clinical Assistant Professor | Term   | 2011 | DVM, MS  | ACVIM-Cardiology                    |  | Cardiology   | 1    | Teaching – 30%<br>Clinical Practice – 50% |
| VCS   | Meredith 't Hoen            | Clinical Assistant Professor | Term   | 2007 | DVM      | ACVECC, ECVICC                      |  | Emergency/Critical Care                            | 1    | Teaching – 15%<br>Clinical Practice – 70% |
| VCS   | Nicholas Rancilio           | Professor                    | Tenure | 2010 | DVM, MS  | ACVR                                |  | Oncology   | 1    | Teaching – 5%<br>Clinical Practice – 75%  |
| VCS   | Rachel Allbaugh             | Clinical Assistant Professor | Tenure | 2004 | DVM, MS  | ACVO                                |  | Ophthalmology                                      | 1    | Teaching – 10%<br>Clinical Practice – 50% |
| VCS   | Robin White                 | Professor                    | Term   | 2016 | DVM, MSc | ACVR                                |  | Diagnostic Imaging                                 | 0.8  | Teaching – 5%<br>Clinical Practice – 88%  |
| VCS   | Rodney Bagley               | Professor                    | Tenure | 1986 | DVM      | ACVIM-SAIM, ACVIM-Neurology         |  | Neurology, Rehabilitation                          | 1    | Teaching – 35%<br>Clinical Practice – 25% |
| VCS   | Tamara Swor                 | Clinical Assistant Professor | Term   | 1999 | DVM      | ACVECC-LA, ACVS-LA                  |  | Shelter Med and Surgical Education/ Equine Surgery | 1    | Teaching – 70%<br>Clinical Practice – 10% |
| VCS   | Tori Miller                 | Clinical Assistant Professor | Term   | 2010 | DVM      | ACVECC                              |  | Emergency/Critical Care                            | 1    | Teaching – 10%<br>Clinical Practice – 80% |
| VDPAM | Anne Jablinski              | Assistant Professor          | Tenure | 2019 | DVM, MS  | ACVIM                               |  | Food Animal Medicine and Surgery                   | 1    | Teaching – 35%<br>Clinical Practice – 50% |
| VDPAM | Caitlin Messerschmidt       | Clinical Associate Professor | Term   | 2013 | DVM, MS  | ACT                                 |  | Theriogenology                                     | 1    | Teaching – 30%<br>Clinical Practice – 68% |

|       |                          |                              |        |      |               |       |  |     |   |
|-------|--------------------------|------------------------------|--------|------|---------------|-------|--|-----|---|
| VDPAM | Chong Wang               | Professor                    | Tenure |      | MS, PhD       |       | Statistics   | I   | Teaching – 30%<br>Clinical Practice – 35% |
| VDPAM | Christopher Rademacher   | Clinical Professor           | Term   | 1998 | DVM           |       | Swine Production Medicine  | I   | Teaching – 5%<br>Clinical Practice – 0%   |
| VDPAM | Christopher Siepler      | Clinical Assistant Professor | Term   | 2016 | DVM           | ACVP  | Diagnostic Pathology, Infectious Diseases of Livestock, Swine and Bovine Respiratory Disease | I   | Teaching – 10%<br>Clinical Practice – 85% |
| VDPAM | Daniel Linhares          | Associate Professor          | Tenure | 2003 | DVM, MBA, PhD |       | Precision Swine Health & Production Management   | I   | Teaching – 10%<br>Clinical Practice – 30% |
| VDPAM | Darin Madson             | Clinical Professor           | Term   | 2004 | DVM, PHD      | ACVP  | Diagnostic Pathology   | I   | Teaching – 5%<br>Clinical Practice – 78%  |
| VDPAM | David Baum               | Clinical Professor           | Term   | 1983 | DVM, MS, PhD  |       | Serology   | I   | Teaching – 5%<br>Clinical Practice – 80%  |
| VDPAM | David Borts              | Clinical Professor           | Term   |      | MS, PhD       |       | Analytical Chemistry   | I   | Teaching – 5%<br>Clinical Practice – 85%  |
| VDPAM | Derald Holtkamp          | Professor                    | Tenure | 1997 | DVM, MS       |       | Swine Disease Risk Assessment, Economics of Disease  | I   | Teaching – 15%<br>Clinical Practice – 45% |
| VDPAM | Drew Magstadt            | Clinical Associate Professor | Term   | 2011 | DVM, MS       |       | Diagnostic Pathology, Applied Infectious Disease Research                                    | I   | Teaching – 1%<br>Clinical Practice – 91%  |
| VDPAM | Enoch Meira              | Assistant Professor          | Tenure | 2005 | DVM, MSc, PhD |       | Food Animal Medicine and Surgery   | I   | Teaching – 40%<br>Clinical Practice – 45% |
| VDPAM | Eric Burrough            | Professor                    | Tenure | 1997 | DVM, PhD      | ACVP  | Pathology, Brachyspira, Enteric Diseases of Swine  | I   | Teaching – 10%<br>Clinical Practice – 60% |
| VDPAM | Ganwu Li                 | Professor                    | Tenure | 1996 | BVSc, MS, PhD |       | Molecular, Microbiology  | I   | Teaching – 3%<br>Clinical Practice – 40%  |
| VDPAM | Giovani Trevisan         | Research Assistant Professor | Term   | 2009 | DVM, MBA, PhD |       | Veterinary Epidemiology  | I   | Teaching – 10%<br>Clinical Practice – 10% |
| VDPAM | Grant Dewell             | Associate Professor          | Tenure | 1993 | DVM, MS, PhD  |       | Beef Production Medicine, Epidemiology, Economics, Food Safety                               | I   | Teaching – 15%<br>Clinical Practice – 10% |
| VDPAM | Gustavo De-Sousa-E-Silva | Assistant Professor          | Tenure | 2009 | DVM, MS, PhD  |       | Epidemiology   | I   | Teaching – 35%<br>Clinical Practice – 20% |
| VDPAM | Jan Shearer              | Professor                    | Tenure | 1975 | DVM, MS       | ACAW  | Dairy Production Medicine, Lameness, Animal Welfare  | I   | Teaching – 10%<br>Clinical Practice – 0%  |
| VDPAM | Jeffrey Zimmerman        | Professor                    | Tenure | 1984 | DVM, MS, PhD  | ACVPM | Epidemiology   | I   | Teaching – 20%<br>Clinical Practice – 20% |
| VDPAM | Jianqiang Zhang          | Professor                    | Tenure |      | MD, MS, PhD   |       | Molecular and Viral Diagnostics  | I   | Teaching – 5%<br>Clinical Practice – 70%  |
| VDPAM | Justin Brown             | Assistant Professor          | Tenure | 2016 | DVM, PhD      |       | Swine Disease, Foreign Animal Disease, Emergency Preparedness                                | I   | Teaching – 75%<br>Clinical Practice – 12% |
| VDPAM | Karen Krueger            | Clinical Professor           | Term   |      | PhD           |       | Molecular and Viral Diagnostics  | 0.6 | Teaching – 5%<br>Clinical Practice – 60%  |

|       |                         |                              |        |      |                     |                            |  |      |   |
|-------|-------------------------|------------------------------|--------|------|---------------------|----------------------------|--|------|---|
| VDPAM | Kyoung-jin Yoon         | Professor                    | Tenure | 1985 | DVM, MS, PhD        | ACVM                       | Viral Diseases and Diagnostics   | I    | Teaching – 15%<br>Clinical Practice – 30% |
| VDPAM | Locke Karriker          | Morrill Professor            | Tenure | 1999 | DVM, MS             | ACVPM                      | Swine Medicine, Field Study Design, Evidence Based Practice, Clinical Teaching, Swine Pharmacology | I    | Teaching – 50%<br>Clinical Practice – 25% |
| VDPAM | Luis Gimenez-Lirola     | Associate Professor          | Tenure |      | MS, PhD             |                            | Serology/immunology, emerging viruses, disease modeling  | I    | Teaching – 8%<br>Clinical Practice – 45%  |
| VDPAM | Marcelo Almeida         | Assistant Professor          | Tenure | 2003 | DVM, MS, PhD        |                            | Swine Diagnostics  | I    | Teaching – 5%<br>Clinical Practice – 75%  |
| VDPAM | Maria Clavijo           | Research Associate Professor | Term   | 2009 | DVM, PhD            |                            | Bacteriology, Mycoplasma   | 0.65 | Teaching – 5%<br>Clinical Practice – 5%   |
| VDPAM | Marianna Jahnke         | Associate Teaching Professor | Term   |      | MS                  |                            | Embryo Transfer Bovine Reproduction  | I    | Teaching – 45%<br>Clinical Practice – 45% |
| VDPAM | Marta Mainenti          | Clinical Assistant Professor | Term   | 2011 | DVM                 | ACVP                       | Diagnostic Pathology   | I    | Teaching – 6%<br>Clinical Practice – 85%  |
| VDPAM | Megan Hindman           | Clinical Assistant Professor | Term   | 2018 | DVM, MS             |                            | Food Animal Ambulatory Medicine  | I    | Teaching – 0%<br>Clinical Practice – 90%  |
| VDPAM | Mitch Hiscocks          | Clinical Professor           | Term   | 1989 | DVM                 | ACVPM                      |  | I    | Teaching – 0%<br>Clinical Practice – 96%  |
| VDPAM | Mohamed El-Gazzar       | Associate Professor          | Tenure | 2000 | DVM, MAM, PhD       | ACPV                       | Poultry  | I    | Teaching – 8%<br>Clinical Practice – 55%  |
| VDPAM | Nubia Resende-De-Macedo | Clinical Assistant Professor | Term   | 2005 | DVM, MS, PhD        |                            | Diagnostic Bacteriology  | I    | Teaching - 15%<br>Clinical Practice – 68% |
| VDPAM | Orhan Sahin             | Associate Professor          | Tenure | 1993 | DVM, MS, PhD        | ACVM                       | Bacteriology   | I    | Teaching - 13%<br>Clinical Practice – 50% |
| VDPAM | Pablo Pineyro-Pineiro   | Associate Professor          | Tenure | 1999 | DVM, MSVc, PhD      |                            | Pathology, Swine medicine  | I    | Teaching - 5%<br>Clinical Practice – 50%  |
| VDPAM | Patrick Gorden          | Professor                    | Tenure | 1993 | DVM, PhD            | ABVP-Dairy Practice, ACVCP | Dairy Production Medicine, Milk Quality, Clinical Pharmacology                                     | I    | Teaching – 35%<br>Clinical Practice – 35% |
| VDPAM | Patrick Halbur          | Department Chair             | Tenure | 1986 | DVM, MS, PhD        |                            |  | I    | Teaching – 0%<br>Clinical Practice – 5%   |
| VDPAM | Paul Plummer            | Associate Dean               | Tenure | 2000 | DVM, PhD            | ACVIM-LAIM, ECSRHM         | Ruminant Medicine and Surgery  | I    | Teaching – 4%<br>Clinical Practice – 20%  |
| VDPAM | Phillip Gauger          | Professor                    | Tenure | 1994 | DVM, MS, PhD        |                            | Pathology, Virology, Swine Influenza, PED, PRRSV, PCV2   | I    | Teaching – 5%<br>Clinical Practice – 75%  |
| VDPAM | Phillip Jardon          | Clinical Associate Professor | Term   | 1986 | MS, DVM, MPVM       |                            | Dairy Production Medicine  | I    | Teaching – 45%<br>Clinical Practice – 0%  |
| VDPAM | Rachel Derscheid        | Associate Professor          | Tenure | 2007 | DVM, PhD            | ACVP                       | Pathology  | I    | Teaching – 8%<br>Clinical Practice – 55%  |
| VDPAM | Rachel Friedrich        | Clinical Assistant Professor | Term   | 2009 | DVM                 | ABVP                       | Food Animal Production Medicine and Surgery  | I    | Teaching – 24%<br>Clinical Practice - 70% |
| VDPAM | Rahul Nelli             | Research Assistant Professor | Term   | 2005 | BVSc & AH, MVM, PhD |                            | 3D cell cultures, Immune responses   | I    | Teaching – 2%<br>Clinical Practice – 17%  |



|       |                       |                              |        |      |               |          |  |  |        |   |
|-------|-----------------------|------------------------------|--------|------|---------------|----------|--|--|--------|---|
| VDPAM | Rodger Main           | Director                     | Tenure | 1996 | DVM, PhD      |          |  | Diagnostic Medicine                            | 1      | Teaching – 0%<br>Clinical Practice – 10%  |
| VDPAM | Scott Radke           | Clinical Assistant Professor | Term   | 2016 | DVM, MS       | ABVT     |  | Toxicology/Nutrition                           | 1      | Teaching – 20%<br>Clinical Practice – 76% |
| VDPAM | Suzanne Millman       | Professor                    | Tenure |      | PhD           |          |  | Animal Welfare                                 | 1      | Teaching – 40%<br>Clinical Practice – 14% |
| VDPAM | Tanja Opriessnig      | Professor                    | Tenure | 2002 | DVM, PhD      |          |  | Pathology, Swine Respiratory Diseases          | 0.3325 | Teaching – 0%<br>Clinical Practice – 5%   |
| VDPAM | Terry Engelken        | Professor                    | Tenure | 1987 | DVM, MS       |          |  | Beef Production Medicine, Cow-Calf and Feedlot | 1      | Teaching – 50%<br>Clinical Practice – 35% |
| VDPAM | Theresa Beachler      | Assistant Professor          | Tenure | 2012 | DVM, PhD      | ACT      |  | Theriogenology                                 | 1      | Teaching – 26%<br>Clinical Practice – 60% |
| VDPAM | Tyler Dohlman         | Associate Professor          | Tenure | 2010 | DVM, MS       | ACT      |  | Theriogenology                                 | 1      | Teaching – 44%<br>Clinical Practice – 49% |
| VDPAM | Vengai Mavangira      | Associate Professor          | Tenure | 2004 | BVSc, PhD     | ACVIM    |  | Food Animal Medicine and Surgery               | 1      | Teaching – 30%<br>Clinical Practice – 50% |
| VDPAM | Yuko Sato             | Associate Professor          | Tenure | 2012 | DVM, MS       | ACPV     |  | Poultry Diagnostics and Medicine               | 1      | Teaching – 10%<br>Clinical Practice – 0%  |
| VMPM  | Amanda Kreuder        | Assistant Professor          | Tenure | 2008 | DVM, PhD      | ACVIM-LA |  | Antimicrobial Resistance/Small Ruminants       | 1      | Teaching – 15%<br>Clinical Practice – 5%  |
| VMPM  | Bradley Blitvich      | Professor                    | Tenure |      | PhD           |          |  | Virology                                       | 1      | 15%                                       |
| VMPM  | Brett Sponseller      | Professor                    | Tenure | 1994 | DVM, PhD      | ACVIM-LA |  | Equine Internal Medicine and Virology          | 1      | Teaching – 30%<br>Clinical Practice – 20% |
| VMPM  | Bryan Bellaire        | Associate Professor          | Tenure |      | PhD           | (SM)NRCM |  | Bacteriology and Immunology                    | 1      | 15%                                       |
| VMPM  | Cathy Miller          | Professor                    | Tenure |      | PhD           |          |  | Virology                                       | 1      | 15%                                       |
| VMPM  | David Verhoeven       | Assistant Professor          | Tenure |      | PhD           |          |  | Virology and Immunology                        | 1      | 15%                                       |
| VMPM  | Gayle B Brown         | Teaching Professor           | Term   | 1986 | DVM, MS, PhD  |          |  | Public Health                                  | 1      | 90%                                       |
| VMPM  | Iddo Friedberg        | Associate Professor          | Tenure |      | MS, PhD       |          |  | Bioinformatics                                 | 1      | 15%                                       |
| VMPM  | James Roth            | Distinguished Professor      | Tenure | 1975 | DVM, MS, PhD  | ACVM     |  | Immunology and Public Health                   | 1      | 18%                                       |
| VMPM  | Jodi McGill           | Associate Professor          | Tenure |      | MS, PhD       |          |  | Immunology                                     | 1      | 10%                                       |
| VMPM  | Mark Lyte             | Professor                    | Tenure |      | MS, PhD       | ASCP-MT  |  | Bacteriology and Endocrinology                 | 1      | 5%  |
| VMPM  | Michael Wannemuehler  | Professor                    | Tenure |      | MS, PhD       |          |  | Bacteriology and Immunology                    | 1      | 15%                                       |
| VMPM  | Qijing Zhang          | Distinguished Professor      | Tenure | 1983 | BVSc, MS, PhD | ACVM     |  | Bacteriology                                   | 1      | 15%                                       |
| VMPM  | Radford Davis         | Associate Professor          | Tenure | 1991 | DVM, MPH      | ACVPM    |  | Public Health                                  | 1      | 60%                                       |
| VMPM  | Ronald Griffith       | Professor                    | Tenure | 1973 | DVM, MS, PhD  | ACVM     |  | Bacteriology and Immunology                    | 1      | 75%                                       |
| VPTH  | Aliye Karabulut-Ilgü  | Assistant Professor          | Tenure |      | MA, PhD       |          |  | Educational Assessment                         | 1      | 10%                                       |
| VPTH  | Amanda Fales-Williams | Morrill Professor            | Tenure | 1995 | DVM, PhD      | ACVP     |  | Anatomic Pathology                             | 1      | Teaching - 40%<br>Clinical Practice – 35% |

|      |                         |                              |        |      |   |                   |                        |   |   |
|------|-------------------------|------------------------------|--------|------|---|-------------------|------------------------|---|---|
| VPTH | Ariel Sarah Nenner      | Assistant Professor          | Tenure | 2018 | PhD, DVM                                | ACVP, ASVCP       | Clinical Pathology     | I | Teaching - 35%<br>Clinical Practice – 35% |
| VPTH | Cheryl Aitch            | Assistant Professor          | Tenure | 2012 | DVM, MS                                 | ACVP              | Clinical Pathology     | I | Teaching - 35%<br>Clinical Practice – 40% |
| VPTH | Claire Andreasen        | University Professor         | Tenure | 1982 | DVM, MS, PhD                            | ACVP              | Clinical Pathology     | I | Teaching - 20%<br>Clinical Practice – 20% |
| VPTH | Douglas Jones           | Professor                    | Tenure | 1989 | MS, VMD, PhD                            |                   | Parasitology           | I | Teaching - 40%<br>Clinical Practice – 0%  |
| VPTH | Jared Danielson         | Morrill Professor            | Tenure |      | MS, PhD                                 |                   | Educational Assessment | I | 10%                                       |
| VPTH | Lisa Kimberly Uhl       | Clinical Assistant Professor | Term   | 2018 | DVM                                     |                   | Anatomic Pathology     | I | Teaching - 45%<br>Clinical Practice – 45% |
| VPTH | Mark Morton             | Clinical Assistant Professor | Term   | 2013 | DVM                                     | ACVP              | Clinical Pathology     | I | Teaching - 40%<br>Clinical Practice – 50% |
| VPTH | Matthew Brewer          | Associate Professor          | Tenure | 2012 | DVM, PhD                                | ACVP-Parasitology | Parasitology           | I | Teaching - 35%<br>Clinical Practice – 20% |
| VPTH | Michael Yaeger          | Professor                    | Tenure | 1984 | DVM, PhD                                | ACVP              | Anatomic Pathology     | I | Teaching - 40%<br>Clinical Practice – 40% |
| VPTH | Nutapong Udomteerasuwat | Clinical Assistant Professor | Term   | 2015 | DVM, Master of Veterinary Studies (MVS) | ACVP              | Anatomic Pathology     | I | Teaching - 30%<br>Clinical Practice – 50% |
| VPTH | Olufemi Fasina          | Assistant Professor          | Tenure | 2004 | DVM, MVSc, PhD                          | ACVP              | Anatomic Pathology     | I | Teaching - 25%<br>Clinical Practice – 40% |
| VPTH | Todd Michael Bell       | Professor                    | Tenure | 2002 | DVM, PhD                                | ACVP              | Anatomic Pathology     | I | Teaching - 20%<br>Clinical Practice – 0%  |
| VPTH | Tyler Alan Harm         | Assistant Professor          | Tenure | 2017 | PhD, DVM                                | ACVP              | Anatomic Pathology     | I | Teaching - 30%<br>Clinical Practice – 40% |

**University of Nebraska-Lincoln – Professional Program in Veterinary Medicine**

|           |                      |                                 |        |      |          |      |                              |     |      |
|-----------|----------------------|---------------------------------|--------|------|----------|------|------------------------------|-----|------|
| UNL SVMBS | Barletta, Raul       | Professor                       | Tenure |      | PhD      |      | Bacteriology                 | 1.0 | 10%  |
| UNL SVMBS | Clark, Halden        | Assistant Professor of Practice | Term   | 2012 | DVM, MS  |      | Clinical veterinary practice | 1.0 | 50%  |
| UNL SVMBS | Clement, Shawna      | Assistant Professor of Practice | Term   |      | PhD      |      | Anatomy                      | 1.0 | 100% |
| UNL SVMBS | Cortinas, Manuel     | Associate Professor of Practice | Term   | 1998 | DVM, PhD |      | Parasitology                 | 1.0 | 75%  |
| UNL SVMBS | Delhon, Gustavo      | Research Professor              | Term   | 1979 | DVM, PhD |      | Virology                     | 1.0 | 30%  |
| UNL SVMBS | Desaulniers, Amy     | Assistant Professor             | Tenure |      | PhD      |      | Physiology                   | 1.0 | 65%  |
| UNL SVMBS | Drozdz, Mary         | Assistant Professor             | Tenure | 2017 | DVM, PhD | ACVP | Anatomic pathology           | 1.0 | 10%  |
| UNL SVMBS | Franco Cruz, Rodrigo | Professor                       | Tenure |      | PhD      |      | Neurobiology, toxicology     | 1.0 | 10%  |
| UNL SVMBS | Funk, Rebecca        | Assistant Professor of Practice | Term   | 2007 | DVM, MS  |      | Clinical veterinary practice | 1.0 | 50%  |
| UNL SVMBS | Galles, Beth         | Assistant Professor of Practice | Term   | 2003 | DVM, MPH |      | Clinical veterinary practice | 1.0 | 100% |
| UNL SVMBS | Harris, Seth         | Professor                       | Tenure | 2003 | DVM, PhD | ACVP | Anatomic pathology           | 1.0 | 0%   |

|           |                      |                                 |        |      |          |       |     |      |
|-----------|----------------------|---------------------------------|--------|------|----------|-------|-----|------|
| UNL SVMBS | Hille, Matthew       | Assistant Professor             | Tenure | 2014 | DVM, PhD |       | 1.0 | 0%   |
| UNL SVMBS | Kammermann, John     | Professor                       | Tenure |      | PhD      |       | 1.0 | 100% |
| UNL SVMBS | Krafsur, Greta       | Assistant Professor of Practice | Term   | 2013 | DVM, MS  | ACVP  | 1.0 | 55%  |
| UNL SVMBS | Loy, Duan            | Assistant Research Professor    | Term   | 2006 | DVM, PhD | ACVM  | 1.0 | 5%   |
| UNL SVMBS | Loy, John            | Professor                       | Tenure | 2009 | DVM, PhD | ACVM  | 1.0 | 0%   |
| UNL SVMBS | McFee, Renee         | Associate Professor             | Tenure | 2005 | DVM, PhD |       | 1.0 | 98%  |
| UNL SVMBS | McVey, David         | Professor                       | Tenure | 1980 | DVM, PhD | ACVM  | 1.0 | 0%   |
| UNL SVMBS | Pattnaik, Asit       | Professor                       | Tenure |      | PhD      |       | 1.0 | 20%  |
| UNL SVMBS | Pickard, Gary        | Professor                       | Tenure |      | PhD      |       | 1.0 | 0%   |
| UNL SVMBS | Reddy, N             | Professor                       | Tenure | 1985 | DVM, PhD |       | 1.0 | 25%  |
| UNL SVMBS | Reynolds, Donald     | Professor                       | Tenure | 1981 | DVM, PhD | ACVM  | 1.0 | 15%  |
| UNL SVMBS | Sillman, Sarah       | Assistant Professor             | Tenure | 2012 | DVM, PhD | ACVP  | 1.0 | 30%  |
| UNL SVMBS | Sollars, Patricia    | Associate Professor             | Tenure |      | PhD      |       | 1.0 | 0%   |
| UNL SVMBS | Somerville, Greg     | Professor                       | Tenure |      | PhD      |       | 1.0 | 20%  |
| UNL SVMBS | Steffen, David       | Professor                       | Tenure | 1987 | DVM, PhD | ACVP  | 1.0 | 0%   |
| UNL SVMBS | Topliff, Christina   | Associate Professor of Practice | Term   | 1987 | DVM, PhD |       | 1.0 | 100% |
| UNL SVMBS | Vander Ley, Brian    | Associate Professor             | Tenure | 2008 | DVM, PhD | ACVPM | 1.0 | 22%  |
| UNL SVMBS | VanWormer, Elizabeth | Associate Professor             | Tenure | 2005 | DVM, PhD |       | 1.0 | 35%  |
| UNL SVMBS | Walton, Amy          | Assistant Professor of Practice | Term   | 2010 | DVM      |       | 1.0 | 100% |
| UNL SVMBS | Wiebe, Matthew       | Professor                       | Tenure |      | PhD      |       | 1.0 | 25%  |
| UNL SVMBS | Xiang, Shi           | Associate Professor             | Tenure |      | PhD      |       | 1.0 | 10%  |
| UNL SVMBS | Zhou, You            | Research Professor              | Term   |      | PhD      |       | 1.0 | 10%  |

Note: \*At ISU, faculty who are not in a tenure classification are referred to as “term.” \*\*For clinical faculty, both “teaching” and “clinical practice” are listed, as “clinical practice” involves teaching and supervising students during VM4 rotations. BMS = Biomedical Sciences, VCS = Veterinary Clinical Sciences, VDPAM = Veterinary Diagnostic and Production Animal Medicine, VMPPM = Veterinary Microbiology and Preventive Medicine, VPTH = Veterinary Pathology, UNL SVMBS = University of Nebraska-Lincoln School of Veterinary Medicine and Biomedical Sciences

UNL: Over the last five years, the UNL SVMBS has successfully hired pathologists, microbiologists, and physiologists. We have recently hired a tenure-leading pathologist (beginning work in October 2024) and retained our key parasitologist through a competitive process. We have recently tenured and promoted tenure-leading and term faculty (with a 100% success rate). We are also enhancing direct advocacy efforts to increase recruitment diversity.

**8.6 Provide a concise summary of promotion and tenure policies, and the policy to assure stability for non-tenured, long-term faculty.**

ISU: Iowa State University has two faculty tracks: Tenure and Term. Term faculty are considered essential long-term members of the college faculty, and serve side-by-side with tenure-track faculty on committees and in other leadership roles. One key distinction between tenure track and term is that tenure track faculty have duties across multiple areas (almost always including both teaching and scholarship), and scholarship, defined as “creative, systematic, rational inquiry into a topic and the honest, forthright application or exposition of conclusions drawn from that inquiry,” is required for the promotion and tenure of tenure track faculty. Term faculty are hired for specific roles within one of four tracks (teaching, professional practice, clinical, or research). The faculty advancement policy at all career stages is clearly outlined by the University, for faculty both on the tenure and term tracks. Both tracks have clear and well-defined advancement paths from assistant to associate, to full professor, and advancement in all cases is based on each faculty member’s Position Responsibility Statement (PRS), which describes areas of responsibility. The university’s Faculty Handbook outlines all university-wide policies and procedures related to advancement in both tenure and term tracks. Additionally, the college and each department provide department-specific guidance for advancement. The Assistant Provost for Faculty Development provides training and other resources related to promotion/advancement for faculty at the university level, and the CVM Faculty Success Advisor, and Senior Associate Dean provide college-wide training and other resources for advancement.

UNL: UNL also has tenure and term faculty tracks, with definitions and distinctions similar to ISU. The faculty advancement policy at all career stages is clearly outlined by UNL and IANR. The UNL SVMBS follows these principles and is in the process of adopting a school-specific set of guidelines for annual evaluation, promotion and tenure. There are also clear expectations stated by IANR for promotion and tenure. Evaluation and eventual promotion are based on the position description associated with all faculty appointments, which describes areas of professional responsibility. The UNL SVMBS Director and the Peer Review Committee provide unit-specific guidance for advancement. Resources for development and opportunities for leadership are provided through the UNL SVMBS, CASNR, and IANR.

**8.7 Provide an estimate of the weight assigned to promotion/tenure and or compensation for teaching, research, service, or other scholarly activities.**

ISU: At ISU, the job assignment for both tenure and term track faculty is defined by the Position Responsibility Statement (PRS), which has individualized duties for each faculty member. Most tenure-track faculty have teaching, research and service responsibilities, but the percentages of time/effort assigned to each area can vary dramatically. Faculty are evaluated according to their specific PRS.

UNL: As for all of UNL, faculty in the UNL SVMBS are evaluated against their position description. All scholarly activities are valued equally, although time and effort expectations do vary widely. This holds true for annual evaluations and consideration for promotion and tenure. Historically, the university has been very fair in recognizing all forms of scholarly activity.

**8.8 Briefly describe faculty professional development opportunities available in the college/university, including, but not limited to learning theory and instructional practices.**

ISU: The university's Center for Excellence in Learning and Teaching (CELT) and the college's OCATS provide regular organized workshops in many areas related to learning theory and instructional practice, and OCATS offers two teaching certificate programs: the New Educators eXperience and Training (NEXT) for new faculty, and the Veterinary Educator Skills and Training (inVEST) program for more experienced faculty. The university also offers numerous seminars in areas such as professional development, university processes, teaching and learning, grantsmanship, and the promotion and tenure process. The university holds a subscription to the National Center for Faculty Development and Diversity (NCFDD) available to all faculty. Finally, faculty are eligible for professional development funding, which varies by department.

UNL: Many opportunities exist for faculty professional development at UNL. One such activity is involvement with the Teaching and Learning Improvement Council (TLIC), which serves as a resource for CASNR faculty through the experience and expertise of faculty who have distinguished themselves as teaching scholars. UNL also offers several professional development opportunities through the Center for Transformative Teaching (CTT). In addition to sponsoring workshops, symposia, and teaching grants, the CTT also supports programs such as the Faculty-led Inquiry into Reflective and Scholarly Teaching (FIRST). Several PPVM faculty have participated in the introductory and/or advanced FIRST programs. Like ISU, UNL is also an institutional member of the NCFDD. Similar opportunities for research-focused professional development are also available.

**8.9 Describe the college's processes to annually monitor equity in compensation and advancement.**

ISU: Annually the Dean and Human Resources Partner (Chief College-level Human Resources Officer) review compensation for equity by gender and race/ethnicity. Incremental salary adjustments over the past five years have largely addressed existing inequities in compensation. The College Faculty Success Advisor and Dean's senior team monitor advancement decisions to ensure they are fair, appropriate, and equitable.

UNL: The UNL SVMBS Director, human resources leadership, and financial management staff review salaries of all faculty. This occurs throughout the year, but specifically after the annual evaluation cycles. Pay increases are largely merit-based, but there have been incremental increases based on market and/or diversity equity. All merit based and/or promotion-based increases are reviewed by UNL SVMBS, CASNR, and IANR administrators to be in line with system and Regents policies of fairness.

**8.10 Describe current plans or major changes in program direction that would be affected by faculty retirements, recruitment and retention.**

ISU: We do not have current plans for major program changes. However, we are constantly planning with pending retirements and recruitment opportunities in mind to ensure that we maintain strong programs and build our programs strategically. Department Chairs work with College administration to anticipate open positions and evaluate ongoing needs.

UNL: The UNL SVMBS does not anticipate any major changes in mission or direction. The continuation of the accredited PPVM program and the state diagnostic laboratory are of prime importance. Maintaining relevance and currency in academic programs is always challenging. With this in mind, we do anticipate using recruitment opportunities to enhance our programs. The UNL SVMBS senior leadership, in collaboration with IANR, are actively evaluating current and future needs.

**8.11 Describe measures taken to attract and retain a diverse faculty.**

ISU: The CVM Faculty Success Advisor meets and trains each search committee in best practices to attract a diverse candidate pool based on the University ADVANCE program. The Faculty Success Advisor also acts as a liaison between the campus-wide Office of Faculty Success, and college faculty, including providing resources from the ISU ADVANCE program, and specifically addressing advancement and review, compensation, development, honors and awards, mentoring, onboarding, and work-life integration.

UNL: At UNL and specifically IANR, all interactions matter and there is intentional work to enhance inclusivity. The UNL SVMBS works with IANR to attract a diverse candidate pool for all open positions, as well as for student recruitment. All faculty and staff that participate in recruitment activities are trained and must continue currency in these principles. Within UNL SVMBS, we have recently created an advocacy team to participate in recruitment to enhance efforts to build diverse applicant pools and support student interests in these matters.

**8.12 Describe how the college's commitment to diversity, equity, and inclusion impacts:**

**a. The training of faculty search committees (e.g. Guidelines from Human Resources, implicit bias training, etc.)**

ISU: All members of faculty search committees participate in mandatory training by the Faculty Success Advisor that includes the college's diversity statement/goals, principles and resources for cultivating a diverse applicant pool, principles in interviewing candidates, and how to be aware of and compensate for implicit bias.

UNL: In UNL SVMBS, all faculty are trained by human resources personnel in these matters, following IANR policies and procedures. University and state policies, best hiring and candidate evaluation practices, and appropriate administrative procedures are components of the training/learning activities.

**b. Promotion and tenure policies**

Promotion and tenure policies are designed to ensure that all faculty have a fair, transparent and clearly communicated pathway to promotion and tenure. Promotion is based on faculty members' success in satisfying the conditions of individual position responsibility statements (PRS), which are reviewed annually between each faculty member and the Department Chair. This transparent process helps to obviate real or perceived effects of bias. The tenure clock can be extended for exceptional circumstances such as the arrival or adoption of a child, personal health issue, or significant care responsibilities. The college's Faculty Success Advisor meets annually with all members of the college promotion and tenure committee and advancement of term faculty committee and provides information on how to be aware of and compensate for implicit bias.

**c. Process to annually monitor equity in compensation, benefits, and advancement.** (Please see Section 8.9, above.)

**8.13. Describe programs for on-campus delivery of curricular content by individuals not employed full time by the institution (other than occasional guest lecturers), including subjects taught. Estimate the percentage of core curricular content delivered in this way.**

Three of our required courses are taught by individuals not employed full time by ISU. They include: 1) BMS 7336 Veterinary Nutrition (2 CR, offered via two-way video by Dr. Tom Burkey, UNL, with Dr. Justin Brown as a local co-instructor), 2) VCS 7315 Veterinary Law (1 CR, offered virtually by Dr. Lance



Roasa) and 3) VCS 7448 Diagnostic Imaging and Radiobiology (3 CR, 2-way video offered by Dr. Tony Pease, with Dr. Kris Miles as a local co-instructor). Therefore, the estimated percentage of required curricular content delivered by external instructors is 6/160 or 3.75%.

***8.14 Describe the role of interns, residents, and graduate students in teaching and evaluating veterinary students.***

Iowa State University offers strong resident and intern programs in a variety of specialties, and these individuals are an integral part of clinical teaching in the LVMC. Residents and interns (House Officers) provide student instruction primarily in workplace-based settings in the VM4 year, under the supervision of attending faculty. House Officers guide students through aspects of clinical case management (clinical specialties) or diagnostic testing (diagnostic specialties), provide instruction and formative feedback through case and rounds discussions, and often participate in summative end-of-rotation evaluations. Residents and interns receive directed training on clinical instruction and how to provide student feedback during a 2-part House Officer Clinical Teaching Workshop, provided each fall as part of the House Officer Seminar Series.

Clinical House Officer programs are overseen by a House Officer Committee that monitors requirements and success of each program and individual. This Committee is actively working to operationalize the AAVMC Guidelines for Veterinary Intern and Resident Well-Being, and the hospital has recently taken several steps to support House Officer well-being. House Officer salaries have been increased twice in the past 3 years and are now among the highest in our geographic peer group. House Officers also have access to full ISU employee benefits, including coverage for mental healthcare and access to the Employee Assistance Program. The LVMC has an on-site social worker who supports House Officers dealing with client concerns, grief and loss, or challenging communication situations. Technical staffing in the LVMC has also increased substantially in recent years, supporting the educational mission of the teaching hospital and improving training programs for both students and House Officers alike.

In addition to VM4 workplace-based instruction, graduate students and some residents (particularly in diagnostic specialties) also provide supplemental instruction during VM1-3 clinical teaching laboratories and are involved in the assessment of students in these educational activities, under supervision and direction of overseeing faculty.



## STANDARD 9. CURRICULUM

### *9.1. State the overall objectives of the curriculum and describe how those objectives are integrated into individual courses.*

The overall objectives of the curriculum are that by the time of graduation, graduates of the ISU CVM will:

1. Demonstrate mastery of the principles and mechanisms underlying disease and health and the history of important animal diseases to support the competent practice of veterinary medicine.
2. Handle patients safely and effectively.
3. Perform anesthesia and manage pain effectively.
4. Attend to animal welfare in all aspects of veterinary practice including behavior, husbandry, animal handling and care, and client education.
5. Diagnose common diseases and abnormalities in a variety of animal species including effective use of the medical interview, physical exam, and appropriate diagnostic testing (including clinical laboratory testing).
6. Manage records effectively and in adherence with all relevant laws and professional standards.
7. Create appropriate treatment plans for a variety of common diseases/conditions.
8. Plan and perform common surgical procedures and ensure appropriate aftercare.
9. Manage common medical cases, including performance of common clinical procedures, appropriate medical decision making, and patient referral when appropriate.
10. Manage emergency and intensive care cases.
11. Utilize health promotion strategies that prevent the transmission of zoonotic and other diseases, and ensure food safety.
12. Communicate effectively with clients and co-workers.
13. Seek out and utilize new information and research findings relevant to cases encountered in every day practice.
14. Function as ethical, respectful professionals.
15. Manage financial and other business functions in a way that facilitates professional success.

The ISU CVM has a four-year required curriculum, with six semesters of classroom and laboratory-based courses followed by no fewer than 44 weeks of hands-on instruction in clinical rotations. This instruction is associated with the overall curricular objectives as follows:

**Semesters 1-3** primarily address Objective 1, with 44 credit hours (CR) of instruction in anatomy, physiology, molecular and cellular biology, immunology, pathology, microbiology, and parasitology. Instruction in these semesters also introduces a variety of more applied topics, including 13 CR of instruction related to Objectives 2 (handling), 4 (welfare), 5 (radiology and case study courses), 8 (surgery), 14 (ethics), and 4 & 9 (nutrition). We also incorporate financial modules in Semester 1 to address Objective 15, and to serve as a foundation in the area of financial management. Objective 13 is addressed in various courses throughout the curriculum, as described in section 10.2, beginning in semester 1, where, for instance, students are expected to utilize peer reviewed research to critically evaluate food additives in our required Veterinary Nutrition course (BMS 7336).

**Semesters 4-6** primarily focus on applied topics (46 CR) including Objectives 8 (surgery), 3 (anesthesiology and pharmacology), 5 (clinical pathology, medicine, surgery), 7, 9, and 10 (medicine and surgery), 11 (public health and case studies), and 12 (communication). They also cover general pharmacology and virology, (6 CR). These semesters also introduce students to the hospital medical records system (Objective 6) and veterinary law (Objectives 6 and 14).

**Year 4** provides students with the opportunity to integrate knowledge gained through VM4 clinical rotations. All students are required to participate in two-week rotations in the following areas: small

animal medicine; small animal surgery; primary care; anesthesiology; radiology; equine medicine, field services, or surgery; food animal & camelid medicine/surgery; and necropsy/clinical pathology. Students must also complete a four-week rotation in ICU/emergency medicine. In addition to these 20 weeks of required instruction, students must complete an additional 24 weeks of clinical rotations based on the student's choice among four species-focused Options: small animal, equine, mixed, or food animal. Each Option is associated with certain additional required rotations, "selective" rotations (electives chosen from a subset of electives), and elective rotations chosen from all available rotations.

## **9.2. Describe major curricular changes that have occurred since the last accreditation.**

As a result of outcomes assessment, a number of revisions were enacted.

- *Year Coordinators*: Per recommendations from 2016 curriculum review, we established Year Coordinators who are individuals tasked with exploring and vertical and horizontal integration with the curriculum. Outcomes of this effort included 1) improved scheduling of examinations to reduce student anxiety; 2) introduction of microscopy education in VM1-2 years to prepare students for entry-level practice and for the Community Practice element of our VM3 Junior Surgery Laboratory (VCS 7449), and 3) improved sequencing of surgical instruction, also better preparing students for the VM3 Junior Surgery Laboratory (VCS 7449).
- *Changes due to COVID*: There were substantial changes in how curriculum was delivered due to COVID in 2020 and 2021. Specifically, in the second half of Spring 2020 and in Fall 2020, most of the VM1-3 didactic instruction was delivered online. Also, between March and July 2020, some applied learning (labs and VM4 clinical rotations) was also offered online, as classes at ISU were not allowed to meet face-to-face at that time. Face-to-face instruction had resumed for laboratory and experiential clinical instruction by July 2020. In Spring 2021, much of the didactic instruction continued to be delivered on-line, with laboratory instruction being delivered face-to-face in smaller groups, as was done in Fall 2020. Beginning Fall 2021, courses returned to face-to-face instruction at normal capacity, though some courses have retained elements of blended formats that they piloted during COVID-19. We believe that the adaptations we made were effective, and allowed us to continue to meet course objectives.
- *Curriculum Search Tool*: At the recommendation of Year Coordinators, a curriculum search tool was developed to improve vertical integration which can be accessed at <https://curriculum.cvm.iastate.edu/>. Using the transcripts from lecture recordings of all core courses, this tool enables faculty members to search for keywords and phrases to determine which course(s) in the curriculum cover(s) those phrases and at what frequency. Through this tool, faculty can also watch the relevant lecture videos and access other related materials, allowing them to make informed decisions in their own teaching to support vertical integration. This tool is also used to create a concept map of how courses are connected to each other and build on previous knowledge
- *Ultrasound* was identified as an area for improvement in outcomes assessment, so more content related to basic ultrasound instruction was added to a VM2 laboratory course (VCS 393/394), including two hands-on ultrasound laboratories for all students.
- *VCS 7449 (Junior Surgery Laboratory)* had traditionally been offered only in Fall semester to all VM3 students. This posed some challenges, including inequitable student scheduling and responsibilities and patient care duties 7 days/week during the semester, resulting in a suboptimal number of instructors per lab. Starting Fall 2024, the course is offered in both Fall and Spring semesters, with half of the VM3 class taking the lab each semester. This change will streamline the schedule, improve student equity and wellness, and reduce schedule-related extraneous cognitive load for students.
- *Incremental Improvements to Surgery, Anesthesia, and Outreach Courses throughout the Curriculum (2018-2024) to improve vertical alignment*

- **VM1 year** (BMS/VCS 7339 Clinical Foundations required course): Revamped to focus on 1) medication and fluid administration, 2) behavior, restraint and handling, and 3) physical examination skills and documentation.
- **VM2 year** (VCS 7393/7394 Principles of Surgery and VCS 7398 Anesthesia required courses): Added lecture and laboratory material on equine and large animal surgery, dentistry, basic ultrasound, and cadaver dog spays; expanded live animal surgical experiences to include comprehensive anesthesia experience, pre- and post- patient assessments, and writing professional medical records; included RECOVER Basic Life Support certification; incorporated Objective Structured Clinical Examinations (OSCE) assessments in all three courses; integrated pharmacology and anesthesia course materials.
- **VM3 year** (VCS 7449 Junior Surgery Laboratory required course): evolved into a comprehensive clinical course where students provide preventative care and pre- and post-operative care for dogs and cats from local shelters, while also developing surgery and anesthesia skills by performing elective ovariohysterectomy and orchiectomy procedures on these patients.
- **VM4 year:** established VCS 7439X Community Outreach Elective Surgical Rotation as an onsite rotation; revised VCS 7459 Small Animal Overpopulation Medicine as an offsite shelter medicine and surgery preceptorship.
- *VCS 7385 (Grand Rounds) for VM3 Students.* Grand Rounds is a weekly course during which VM4 students present a seminar on a clinical case or topic. Previously, VM3 students were required to attend Grant Rounds (as an “R” course, meaning no credit awarded) to provide exposure to clinical application of knowledge. During the 2021-2022 comprehensive curriculum review, there were two primary challenges identified: 1) making a course “required” but not awarding credit sends students a mixed message about the importance of the course objectives and material; and 2) when no credit is awarded, it is challenging to administer and remediate the course for students that do not fulfill the requirements. Starting Fall 2024, VCS 7385 was eliminated from the core curriculum for VM3 students to allow them to use that 1 hour per week to focus on other coursework. Interested students may still attend or view the presentations asynchronously.
- *Re-ordering VCS 7395 (Small Animal Surgery) and VCS 7448 (Diagnostic Imaging and Radiobiology).* The 2021-2022 comprehensive curriculum review identified the need to reorder these two courses so that students would gain prerequisite knowledge in Radiology before taking the Small Animal Surgery course. Students will now take VCS 7448 in the VM2 year and VCS 7395 in the VM3 year, resulting in better vertical alignment.
- *VCS 7425X (Rotation in Exotic Pet & Wildlife Medicine Clinical and Surgical Skills).* Our outcome assessment results indicated a need for increasing opportunities for education in exotics. To address this need, an elective clinical rotation offering hands-on experience with exotic and wildlife medicine was created and began in 2023.
- *R Courses.* The comprehensive curriculum review identified a need to provide credit for all required courses. All courses previously designated as “R” (required but not for credit), including VCS 7311, VCS 7313, VCS 7440, VCS 7495, have now been assigned 1 credit hour.
- *VCS 7448 (Diagnostic Imaging and Radiobiology).* As mentioned in section 8.13, VCS 7448 is taught by an external instructor with a local co-instructor. We recently transitioned to a new external instructor teaching in a new format, which has been well-received by students.

**9.3. Describe the process used for curriculum assessment (including course/instructor evaluation) and the process used to assess curricular overlaps, redundancies, and omissions.**

The following processes assess the curriculum: 1) All faculty are evaluated by students each semester using a standard set of nine questions that address the instructor’s apparent interest in teaching students,



organization/planning, and instructional skills. Students also evaluate all courses for clarity of course expectations, grading, and quality of the course as a whole. These evaluations are conducted using E-Value, an online Healthcare Education Management system. 2) All VM4 students are invited to complete a survey regarding the curriculum upon graduation. 3) All alumni are invited to complete a survey regarding the curriculum 1 and 5 years post-graduation. 4) All employers of ISU CVM alumni are given the opportunity to evaluate our graduates' preparation in specific curricular areas 1 year post-graduation. 5) All students take the Veterinary Educational Assessment (VEA) at the beginning of the sixth semester of instruction. This measures their preparation in basic science concepts. 6) Faculty complete standard evaluations of students throughout the curriculum (primarily in the VM4 year). 7) NAVLE scores serve as an indication of the appropriateness of the curriculum.

Data from each of the above sources are combined in an Assessment Dashboard, and are provided in the form of a variety of reports to faculty in general, the Dean's Cabinet, and the Curriculum Committee.

Curricular overlaps, redundancies, and omissions are primarily identified through faculty and course evaluations, exit surveys, alumni surveys, and employer surveys. The Curriculum Committee reviews a summary of recommendations and areas of potential need for revision from these sources. For instance, increased emphasis on communication training and financial literacy were implemented as a result of information from those surveys. Curriculum mapping, particularly with the new curriculum search tool, provides another mechanism for identifying overlaps, redundancies, and omissions. Additionally, in 2021-22 the college underwent a full curricular review, building on the prior review, which was conducted in 2016. The Curriculum Committee has been actively reviewing the recommendations of the 2021-22 Curriculum Review and has been implementing changes based upon those recommendations (see Section 9.2).

#### ***9.4. Describe the strengths and weaknesses of the curriculum as a whole.***

##### **Strengths:**

Our curriculum provides a strong foundation in the knowledge underlying medicine, surgery, and clinical/diagnostic reasoning, and practical hands-on experience with a variety of species. The foundational principle is to produce a well-rounded, day one "practice-ready" veterinarian. Below are several broad areas of strengths consistently identified by our alumni and employers (based on data from the last five graduating classes, with sources of evidence in parentheses):

- An overall strong foundation in veterinary knowledge (Alumni, Employers, VEA)
- A strong foundation in veterinary technical skills (Employers, Alumni)
- Strong preparation in veterinary non-technical skills (Employers, Alumni)
- A strong foundation in diagnostic reasoning (Employers, VEA (Path))
- A recognized program in Food Animal Medicine (Employers, NAVLE, Alumni)

##### **Weaknesses:**

Significant curricular weaknesses that threaten the overall success or competence of our graduates have not been identified. Some alumni or their employers recommend additions to the curriculum, such as more hands-on experience, or more training in surgery, dentistry, exotics and wildlife. (See Section 11.1.4.3 for a discussion of the college's efforts to strengthen these areas.) Additionally, while not unique to ISU CVM, as veterinary knowledge continues to expand, there is the continual challenge of adequately addressing a growing body of content without excessively increasing student workload or expanding the time and cost required to offer the curriculum.



### **9.5. Describe preceptor and externship programs (including the evaluation process).**

Our major preceptorship programs are within the two clinical departments, VCS and VDPAM. International preceptorship opportunities are also available (see Section 6.2). On-site preceptor mentors are provided the CVM syllabi containing learning objectives, ISU emergency contacts, and ISU and CVM policies including: student conduct; IT use; mentor/faculty and student harassment and discrimination policies; and disability, religious, civic, and military accommodations. For all preceptorships, students must complete an application process for approval by the ISU faculty course instructor-in-charge in order to have the experience approved for academic credit. After the experience, on-site mentors provide an evaluation of the student using a standardized rubric, and students submit additional assignments to the course instructor according to syllabus requirements.

VDPAM uses preceptorships to augment herd health, food animal, and mixed animal programs. VDPAM faculty with species-specific expertise are instructors-in-charge of preceptorship courses; these individuals review and approve preceptorship experiences and submit final grades. VDPAM preceptorships can occur in a variety of settings, including Applied Production Animal Medicine, Mixed Animal Practice with a Food Animal Emphasis, General Mixed Animal Practice, Government Agency, and Food Processing.

VCS preceptorships involve companion animal, exotic, or equine species. In addition to approval of the experience by the instructor-in-charge, a VCS faculty member must agree to sponsor the student's experience. At the end of the rotation, students submit written feedback regarding the experience, a log of selected procedures, and a case report or topic paper. The sponsoring faculty member reviews the student submissions and feedback from the preceptorship mentor, and assigns the final grade using a standard rubric.

### **9.6. Curriculum Digest**

See Addendums – “Curriculum Digest – Abbreviated – Years 1-3 including comparisons between ISU and UNL,” and “Curriculum Digest -- Full.”

### **9.7. Describe current plans for curricular revisions.**

The college recently underwent a comprehensive curricular review, completed May of 2022. A curriculum review board (CRB) was formed to manage the curriculum review process involving a faculty facilitator, Year Coordinators, and representatives from the college Curriculum Committee. The CRB met regularly to make decisions on the curricular review process, to discuss assessment data, and make recommendations to the college curriculum committee for improvement. Additionally, five task forces were formed to collect additional data to inform curricular revision. In total, between the review board and task forces, the review engaged 23 instructors and 14 students. Four of the task forces, each composed of three faculty members and three to four students, reviewed a different year of the curriculum, examining content, horizontal integration, instructional effectiveness, efficiency, and student well-being. The fifth task force examined the entire curriculum, primarily for vertical integration across years. This process produced a number of recommendations that were reviewed and discussed by the Curriculum Review Board, and have been shared with the Curriculum Committee. A number of suggested changes have been implemented as described in Section 9.2. Additional recommendations include additional reordering of courses, improvements to specific courses, and the addition of material to the curriculum. The Curriculum Committee is continuing to review these items and will determine which recommendations to adopt going forward.

**9.8. Provide a description of the testing/grading system (scoring range, pass levels, pass/fail) and the procedures for upholding academic standards.**

The University does not have a uniform grading system; each syllabus serves as a contract between the instructor and student. The University catalog contains the type of grading system used with each course: Graded (A-F), Pass/Not Pass, or Satisfactory/Fail, with the additional results of Incomplete or Not Reported. Policies are posted on the [CVM website](#) for a summary of academic standards, honor code, technical standards, and the CVM syllabus template. The full Academic Standards policy is available in VetZone (see Table 6.6.1; full policy available to the Site Visit Team on request). To remain in good academic standing, students must maintain a cumulative and required course GPA of 2.00 or greater. A student receiving a final grade of F in any required course is dismissed from the CVM. Students are placed on academic probation if cumulative or required GPA falls below 2.00, and are dismissed from the program if GPA remains below 2.00 in a subsequent semester. For the VM4 year, a new process for identification and remediation of clinical competency deficits was adopted in May 2023 (see Section 11.1).

The Academic Standards Committee meets at the end of each semester to review student academic standing. Students not meeting the standards receive letters of Warning, Academic Probation, or Dismissal, per the Academic Standards policy. Processes are outlined in the Academic Standards policy for students to appeal a failing grade, to appeal dismissal from the program, and to petition for re-admission after dismissal. OASA and the Academic Standards Committee chair provide guidance for each student's specific situation.

Students who are dismissed from the program have the option to work closely with OASA to develop a remedial study program ("Vet Med Special" program). This option allows students to re-enroll in required courses in which they received a grade of C- or lower. These students may return to the program in good standing once this "Vet Med Special" remediation plan is successfully completed.

**9.9. Describe the opportunities for students to learn how different cultural and other influences (e.g., ethnic origin, socio-economic background, religious beliefs, educational level, disabilities and other factors) can impact the provision of veterinary medical services.**

Students have multiple opportunities to learn how cultural and other influences can impact the provision of veterinary medical services. All entering VM1 students take an online module (AVMA Journey for Teams), which introduces general concepts about diversity, equity, and inclusion as related to the veterinary profession. Students also engage in small group discussions of real-life scenarios from veterinary professional contexts involving questions or conflict around dimensions of diversity. All students take required courses in Veterinary Medical Ethics (VCS 7313), Veterinary Law (VCS 7315), and Animal Welfare (VDPAM 7312), which address some of these topics. Students also have the opportunity to participate in the Purdue Certificate for DEI in Veterinary Medicine; each year the college supports a cohort of 10 students, 10 staff, and 10 faculty to take this course. Finally, socioeconomic background, differing abilities, and educational level are all significant factors in client communication during VM4 rotations.

ISU CVM also offers immersive clinical learning experiences allowing students to experience other cultures. [International preceptorships](#) are available in a variety of locations worldwide (see Section 6.2); students who participate in study abroad programs are required to present their experiences at student organization meetings, engaging a larger cohort of the student body. We also offer a unique elective VM4 rotation, VCS 7484 Clinical Practice in Diverse Communities, which provides real-world clinical

experiences in serving the needs of economically disadvantaged communities. Students on this rotation (n = 16) perform preventive care (~300 patients) and spay-neuter surgeries (~100 patients) for clients living on a Native American reservation in South Dakota, and also provide a vaccine clinic for homeless pet owners in Des Moines. This rotation allows students to explore topics of implicit bias, health inequities, and economically disadvantaged cultures with generational trauma.

***9.10. Describe opportunities for students to learn principles of business management skills in veterinary medicine, and opportunities to learn personal financial management (e.g. coursework in financial literacy in the curriculum).***

As discussed in Section 8.2, personal financial literacy instruction is part of VCS 7311 Careers in Veterinary Medicine (VM1), via the Personal Financial Success modules provided by drip.vet. Topics include career planning, paying for veterinary school, budgeting, managing debt, finding employment, and negotiating contracts. The impacts of finance on veterinary practice are also integrated into discussions in VCS 7313 Veterinary Medical Ethics (VM2) and VCS 7314 Communication and Leadership in Veterinary Medicine (VM3), while contract negotiation and contract law is further discussed in VCS 7315 Veterinary Law (VM3). Business management skills are also integrated into Case Study courses (VM1-2). For interested students, additional instruction in business management is provided through VDPAM 7409 Veterinary Practice Management and Organization (elective).

**Standard 9 – Curriculum, UNL**

To facilitate ongoing curricular review, the PPVM Coordinator organizes a meeting of all PPVM instructors three times per year (before the fall semester, between the fall and spring semesters, and after the spring semester). This meeting facilitates communication among faculty and provide a mechanism to discuss concerns regarding courses or students. In May of 2021, a one-week production animal immersion experience was implemented for first year PPVM students at the Great Plains Veterinary Educational Center (GPVEC).

The PPVM Coordinator serves as an ex officio member of the ISU CVM Curriculum Committee to help ensure ongoing consistency between the UNL and ISU curricula. Since course numbers, titles, and credit hours vary between UNL and ISU, a spreadsheet is maintained that outlines course equivalencies and this document is shared between the institutions. In addition, course syllabi are electronically shared between UNL and ISU.





## STANDARD 10. RESEARCH PROGRAMS

### ISU

Research is integrated into the DVM educational program, providing multiple channels for DVM students to learn and explore. These opportunities include, but are not limited to, didactic lectures, seminars, and hands-on research experience such as the Summer Scholar Research Program (SSRP), clinical research-focused internships, and hourly employment in research laboratories and on farms. Seminars are provided to VM1 students introducing them to fundamental concepts of conducting and utilizing research. The college has a robust research enterprise that addresses disease problems affecting both humans and animals. These research activities are supported by extramural funding from various agencies (e.g., NIH and USDA NIFA). The annual research expenditure at the CVM has consistently ranked in the top 10 among all CVMs for the past five years. Of particular note, ISU CVM USDA funding has been ranked #1 among CVMs for multiple years.

#### **10.1. Describe up to five programs of research emphasis and excellence and specifically focus on how these programs integrate with and strengthen the professional program.**

CVM research covers broad and diverse topics, fully embracing the One Health initiative. Five programs represent the strengths of CVM research, and all have inter-related scientific discovery, with collaborators across the ISU campus, other institutions, and USDA federal laboratories. These programs provide research experiences for DVM students, as well as related scholarly course instruction. Laboratories that participate in these five programs are actively engaged and integrated with the DVM program by training SSRP students, mentoring concurrent MS/DVM and PhD/DVM students, and employing DVM as hourly workers to support ongoing research studies.

**1. The Infectious Disease program** focuses on infectious diseases that affect both animal and human health. Topics cover bacterial, viral, and parasitic infections including pathogenesis, diagnostics, innate and adaptive immunity, vaccine development, and host-microbe interactions. Researchers use classic and contemporary approaches including genomics and computational biology. Funding is provided from a variety of sources including NIH, USDA, DOD, NSF, and biologic corporations. Also, the [Center for Food Security and Public Health](#) (CFSPH) engages in zoonotic, transboundary, and emerging infectious disease research and education.

**2. The Translational and One Health program** is a leader in the university-wide research priority of Translational and One Health. Research areas include zoonotic and emerging diseases; development of animal models for studying human diseases such as platelet disorders, retinopathies, and cancer; development of medical devices; comparative ophthalmology; locomotive disturbances; spinal cord injury; immunotherapies; and gastrointestinal and respiratory diseases. The CVM leads the university-wide effort on the development of novel vaccines against infectious agents that are important for animal and human health, such as HIV, influenza, porcine epidemic diarrhea virus, porcine reproductive and respiratory syndrome, and biodefense agents. The CVM is a major partner for the university-wide [Nanovaccine Initiative](#).

**3. The Food Safety and Antimicrobial Resistance program** includes faculty conducting basic and applied research on foodborne pathogens, such as *E. coli*, *Salmonella*, and *Campylobacter*, covering epidemiology, transmission, and ecology; fundamental biology and colonization mechanisms; and development of intervention strategies. The CVM leads a university-wide initiative on antimicrobial resistance (AMR), which covers mechanisms of AMR; persistence, transmission and evolution of AMR; systems approach to understanding AMR; and development of innovative interventions for AMR. The CVM plays a leadership role in hosting the National Institute of Antimicrobial Resistance Research and Education ([NIAMRRE](#)), which is housed in the ISU Research Park and includes membership of over 40 different academic, industry and stakeholder groups including 7 colleges of veterinary medicine.

**4. The Animal Health and Welfare** program includes infectious and non-infectious diseases and factors impacting multiple animal species, including swine, cattle, sheep, and poultry. Research areas include diagnosis, prevention, treatment, and management of animal diseases; epidemiology and risk analysis; and pain management and animal welfare. CVM researchers are at the forefront in the prevention and control of emerging infectious animal diseases, such as porcine epidemic diarrhea virus and high pathogenic avian influenza. Molecular methods and high throughput DNA sequence technologies are used for rapid and accurate detection of pathogens, understanding evolution of pathogens and diseases, identification of genetic changes associated with disorders and diseases, and development of next-generation diagnostics.

**5. The Neuroscience and Neurotoxicology** program focuses on environmentally linked neurodegenerative diseases (e.g. Parkinson's and Alzheimer's), environmental toxicology, neuropharmacology (human beings, animals, parasites), drug abuse, spinal muscular atrophy, epilepsy, traumatic brain injury and chronic traumatic encephalopathy (CTE), retinal degeneration, and learning/memory, ranging from disease mechanisms to novel therapies. Investigators in the program are well funded by NIH. Clinical, diagnostic, and interventional neurology also includes small animal, wildlife, and hoof stock/bovine species.

***10.1.1. Provide a description (one page or less) of measures of faculty research activity, apart from publications and grants enumerated in Tables 12.10.3.b and 12.10.3.c; include faculty participation and presentation of original research in scientific meetings; involvement of faculty in panels, advisory boards or commissions; and national and international research recognitions received.***

CVM faculty members are frequently invited to deliver lectures and seminars in scientific meetings nationally and internationally. Some examples include the annual meetings of the American Society for Microbiology, American Veterinary Medical Association, Society for Neuroscience, International Society of Veterinary Ophthalmology, American Association of Swine Veterinarians, National Institute of Animal Agriculture, the American College of Veterinary Internal Medicine Forum, the American College of Veterinary Surgeons Forum, and International Association for Biologicals. CVM researchers have served in leadership and advisory board roles in a number of professional organizations, such as the Conference of Research Workers in Animal Diseases, the Society of Toxicology, the American Society for Microbiology, the AVMA, the US Department of Interior Federal Advisory Committee on Invasive Species, the International Society for Computational Biology, the American College of Veterinary Surgeons, and the American Board of Veterinary Practitioners. Each year there are a number of CVM faculty members serving on grant review panels for various funding agencies both in the U.S. and internationally, such as NIH Study Sections, USDA NIFA grant review programs, National Pork Board, and NSF-GRFP for Neuroscience. CVM faculty are recognized locally, nationally, and internationally for scientific contributions, such as elected fellows of AAAS, American Academy of Microbiology, and Academy of Toxicological Sciences; elected members of National Academy of Science, National Academy of Medicine, National Academy of Inventors, and National Academy of Practice – Veterinary Science; USDA APHIS Administrator's Award for Life-Time Achievements in Animal Health; and the Presidential Advisory Council for Combating Antimicrobial Resistance.



## Student Experiences

### **10.2. Describe courses or portions of the curriculum where research-related topics are covered (for example – literature review/interpretation, research ethics, research methods or techniques, and study design).**

Numerous courses involve examining current literature and a review of the research methods and design. Furthermore, as described in Section 5.5, numerous courses require students to apply literature in the context of diagnosis, managing, or understanding clinical cases. Course objective examples include “integrate information across basic science disciplines to solve clinical problems,” “analyze a veterinary scientific publication,” “conduct a literature search,” and “critical analysis of new information and research findings relevant to veterinary medicine.” Additionally, two 90-minute seminars introducing various aspects of medical research are incorporated in the Freshman Seminar Series. This seminar series is presented to all VM1 students during the first half of the VM1 Fall semester and functions as an extended orientation to introduce students to various resources and opportunities at ISU CVM. The research-focused seminars within this series introduce and discuss key aspects of research, including: understanding the impact of research on medicine and clinical practice, critical review of research information including sources and peer reviewed publications, components of medical research publications and presentations, formulating hypotheses, experimental design, data analysis, research funding interpretation, IACUC and IRBs, scientific integrity, confidentiality, experimental design in clinical settings, and medical research opportunities at ISU and similar institutions. The VCS 7313 Veterinary Medical Ethics course in the VM2 year contains a session on research ethics and related topics that impact research. These courses and lecture series ensure that every student at ISU CVM is exposed to research.

#### **10.2.1. Describe/list the current opportunities for participation in research, including summer research programs (Merial, NIH, Howard Hughes, etc.), academic year programs (NIH fellowships, industry funded, curricular time allowed for research), student employment in research labs and projects, and individually mentored research experiences.**

The CVM offers numerous research opportunities for DVM students in ISU research laboratories, USDA laboratories, University of Nebraska-Lincoln (UNL), and even international laboratories. These opportunities include experience in basic, applied, and clinical studies as well as farm-based field trials. The SSRP provides 20-30 DVM students each summer with intensive research experience in clinical medicine, infectious diseases, epidemiology, pharmacology, biomechanics, neuroscience, immunology, parasitology, molecular genetics, and molecular pathology. The program includes hands-on laboratory experience, tours of the USDA National Animal Disease Center, poster presentations at local and national conferences, and the potential to publish or co-author a manuscript. Funding is from a NIH T35 training grant, Merial, Morris Animal Foundation, Boehringer Ingelheim Vetmedica, Inc., USDA, the Iowa Livestock Health Advisory Council, Foundation for Food and Agriculture Research, and other sources. The program finishes with a college-wide Annual Research Day that includes a poster session, luncheon, keynote speech, and poster and manuscript awards. Also, an outstanding student can receive an American Veterinary Medical Foundation \$6,000 fellowship to continue their research.

DVM students can also gain research experience from various summer internship programs including Swine Veterinary Internship Program (SVIP) and Bovine Veterinary Internship Program (BVIP). Both require students to create, plan, and execute an applied research project or field trial. Approximately 25-30 students per year participate in these summer programs. Many CVM research laboratories also offer hourly employment for DVM students, allowing them to work on a research grant or project. These research opportunities allow for integration of DVM students with undergraduate, graduate, and postdoctoral researchers to further enrich perspectives and experiences of DVM students.

**10.2.2. Describe college research seminars and presentation for veterinary medical students, including the number of internal and external speakers, endowed research lectureships, veterinary medical student research seminars, veterinary medical student poster presentations, and college research days and awards and presentations made by veterinary medical students at scientific meetings or seminars at external sites.**

DVM students have ample opportunities to attend seminars and lectures given by nationally and internationally renowned speakers. CVM has two endowed research lectureships: the Ramsey Lecture Series and the One Health Lecture Series. The Ramsey Lecture Series features 3-4 keynote speakers per semester who are leading experts in animal and human health. The One Health Lecture Series invites 1-2 keynote speakers throughout the academic year and selects DVM students from the SSRP to display their research posters relating to the keynote speaker’s area of expertise. The CVM holds an Annual Research Day where DVM students in the SSRP, graduate students, and postdoctoral researchers in CVM present their research projects, via poster presentations, to a campus-wide audience followed by a luncheon including a keynote speech given by a renowned researcher and award ceremonies. Awards are presented for outstanding posters for DVM students, graduate students, and postdoctoral researchers, and for DVM student manuscripts prepared while in the SSRP. Additionally, students from this program often present their posters at other local and national conferences including the National Veterinary Scholars Symposium. During the fall semester, the SSRP students have an additional poster presentation at the CVM to share their projects and experience with DVM students, graduate students, postdoctoral researchers, and faculty. Furthermore, the Grand Rounds Seminar (VCS 7385) allows VM4 students to give seminars and case presentations on selected subjects.

**10.2.3. Describe efforts by the college that facilitate the link between veterinary medical student research and subsequent or concurrent graduate education, and that enhance the impact of college research on the veterinary professional program.**

Concurrent education at ISU has been an established program for over 35 years and allows the DVM students to enter either a MS, PhD, or certificate program by earning course credits and participating in research. Students must select a major program, and be approved by the Departmental Officer of Graduate Education, Associate Deans, and Graduate College. Beginning Fall 2022, the college initiated in a new concurrent DVM/PhD program. Participants in the program complete VM1-2 years of the DVM program, then complete a 3-year PhD program with their mentor, and finally complete VM3-4 years of the DVM program. The PhD mentor provides a stipend, benefits, and tuition forgiveness during the PhD portion of the program (Summer years 1-2, Fall/Spring/Summer years 3-5). Students who have completed their PhD after year 5 become eligible for additional scholarship funds. The CVM also recently established the Lora and Russ Talbot Graduate Fellowship Program, which recruits outstanding post-DVM students to the college’s graduate program. The SSRP has provided a pipeline for DVM graduate students at the ISU CVM or other CVMs to enter research careers. Some of these students have now returned to the ISU CVM as faculty members.

**10.3. Complete the following tables**

**Table 10.3.1 - DVM student involvement in research**

| <b>Fiscal Year</b> | <b>Total College DVM Enrollment</b> | <b>DVM Students Involved in Research *</b> | <b>Peer-Reviewed Pubs with DVM Student as Author or Co-Author</b> | <b>DVM/PhD Students Enrolled</b> | <b>DVM/MS/MPH Students Enrolled</b> |
|--------------------|-------------------------------------|--|---|----------------------------------|-------------------------------------|
| 2019-20            | 595                                 | 37   | 19  | 1                                | 18                                  |
| 2020-21            | 625                                 | 39   | 27  | 1                                | 14                                  |
| 2021-22            | 635                                 | 44   | 21  | 2                                | 12                                  |

|         |     |    |    |   |    |
|---------|-----|----|----|---|----|
| 2022-23 | 631 | 26 | 20 | 3 | 8  |
| 2023-24 | 634 | 32 | 19 | 2 | 12 |

\* These numbers are based on the number of students participating in the SSRP or that are enrolled as a concurrent graduate student. This underestimates the total number since we know additional students work hourly in research laboratories.

**Table 10.3.2\* - Faculty efforts in research**

|   | <b>Number Faculty</b> | <b>Total Faculty FTE</b> | <b>Faculty in Research</b> | <b>Total Research FTE</b> | <b>Research Faculty Teaching in DVM curr</b> | <b>No. unique peer-reviewed pubs</b> | <b>No. book chapters including original findings</b> |
|---|-----------------------|--------------------------|----------------------------|---------------------------|--|--------------------------------------|--|
| <b>Biomedical Sciences (BMS)</b>                                    |                       |                          |                            |                           |  |                                      |  |
| 2019-20   | 26                    | 21.02                    | 20                         | 9.9                       | 11   | 65                                   | *  |
| 2020-21   | 24                    | 19.24                    | 18                         | 9.32                      | 10   | 97                                   | *  |
| 2021-22   | 23                    | 18.42                    | 18                         | 8.74                      | 7  | 62                                   | *  |
| 2022-23   | 23                    | 17.24                    | 19                         | 7.49                      | 8  | 50                                   | 0  |
| 2023-24   | 23                    | 19.54                    | 16                         | 8.46                      | 8  | 47                                   | 0  |
| <b>Veterinary Clinical Sciences (VCS)</b>                           |                       |                          |                            |                           |  |                                      |  |
| 2019-20   | 46                    | 42.63                    | 24                         | 9.19                      | 24   | 50                                   | *  |
| 2020-21   | 46                    | 43.23                    | 24                         | 8.82                      | 24   | 56                                   | *  |
| 2021-22   | 49                    | 45.44                    | 24                         | 8.73                      | 25   | 26                                   | *  |
| 2022-23   | 49                    | 47.00                    | 23                         | 8.79                      | 25   | 49                                   | 1  |
| 2023-24   | 47                    | 44.35                    | 24                         | 8.71                      | 24   | 76                                   | 1  |
| <b>Veterinary Diagnostic and Production Animal Medicine (VDPAM)</b> |                       |                          |                            |                           |  |                                      |  |
| 2019-20   | 53                    | 47.98                    | 30                         | 10.47                     | 16   | 87                                   | *  |
| 2020-21   | 57                    | 53.31                    | 29                         | 10.68                     | 25   | 111                                  | *  |
| 2021-22   | 57                    | 53.34                    | 30                         | 11.32                     | 19   | 81                                   | *  |
| 2022-23   | 57                    | 54.67                    | 30                         | 12.62                     | 20   | 84                                   | 2  |
| 2023-24   | 56                    | 52.67                    | 30                         | 11.46                     | 20   | 90                                   | 1  |
| <b>Veterinary Microbiology and Preventive Medicine (VMPM)</b>       |                       |                          |                            |                           |  |                                      |  |
| 2019-20   | 15                    | 14.21                    | 13                         | 8                         | 3  | 31                                   | *  |
| 2020-21   | 15                    | 14.21                    | 14                         | 8.18                      | 7  | 52                                   | *  |
| 2021-22   | 14                    | 13.21                    | 13                         | 7.18                      | 5  | 39                                   | *  |
| 2022-23   | 15                    | 14.21                    | 14                         | 7.88                      | 5  | 38                                   | 0  |
| 2023-24   | 15                    | 14.55                    | 13                         | 7.57                      | 6  | 46                                   | 0  |
| <b>Veterinary Pathology (VPTH)</b>                                  |                       |                          |                            |                           |  |                                      |  |
| 2019-20   | 15                    | 13.42                    | 8                          | 3.41                      | 6  | 24                                   | *  |
| 2020-21   | 14                    | 13.25                    | 9                          | 3.55                      | 8  | 26                                   | *  |
| 2021-22   | 14                    | 13.25                    | 9                          | 3.6                       | 7  | 21                                   | *  |
| 2022-23   | 15                    | 13.63                    | 9                          | 3.35                      | 7  | 28                                   | 1  |
| 2023-24   | 15                    | 12.99                    | 8                          | 2.89                      | 8  | 17                                   | 2  |

| TOTAL CVM |     |        |    |       |    |     |   |
|-----------|-----|--------|----|-------|----|-----|---|
| 2019-20   | 155 | 139.26 | 95 | 40.97 | 60 | 257 | * |
| 2020-21   | 156 | 143.24 | 94 | 40.55 | 74 | 342 | * |
| 2021-22   | 157 | 143.66 | 94 | 39.57 | 63 | 229 | * |
| 2022-23   | 159 | 146.75 | 95 | 40.13 | 65 | 249 | 4 |
| 2023-24   | 156 | 144.1  | 91 | 39.09 | 66 | 276 | 4 |

\*Note. Data for book chapters with original findings is not available prior to 2022 since it was not a requirement to collect at that time

**Table 10.3.3 - Extramural grant funding for research**

|   | Extramurally Sponsored Federal Grants |           | Extramurally Sponsored State Grants |           | Extramurally Sponsored Private Contracts |           | No. Patents          |
|---|---------------------------------------|-----------|-------------------------------------|-----------|--|-----------|----------------------|
|   | Number                                | \$ Value  | Number                              | \$ Value  | Number                                   | \$ Value  |                      |
| <b>Biomedical Sciences (BMS)</b>                                    |                                       |           |                                     |           |  |           |                      |
| 2019  | 20                                    | 4,504,335 | 2                                   | 56,233    | 10                                       | 296,424   | US: 2                |
| 2020  | 13                                    | 3,433,065 | 8                                   | 494,500   | 11                                       | 356,217   | US:3                 |
| 2021  | 10                                    | 3,666,530 | 4                                   | 380,133   | 11                                       | 922,937   | US:2                 |
| 2022  | 7                                     | 2,523,334 | 2                                   | 72,088    | 10                                       | 700,086   | US:3                 |
| 2023  | 7                                     | 1,774,861 | 1                                   | 49,750    | 3  | 494,845   | US:1                 |
| <b>Veterinary Clinical Sciences (VCS)</b>                           |                                       |           |                                     |           |  |           |                      |
| 2019  | NA                                    | NA        | NA                                  | NA        | 26                                       | 636,405   | NA                   |
| 2020  | NA                                    | NA        | 2                                   | 8,855     | 19                                       | 248,521   | NA                   |
| 2021  | NA                                    | NA        | 4                                   | 43,177    | 19                                       | 316,455   | NA                   |
| 2022  | 2                                     | 229,348   | 3                                   | 14,970    | 12                                       | 374,508   | NA                   |
| 2023  | 1                                     | 14,427    | NA                                  | NA        | 10                                       | 210,691   | NA                   |
| <b>Veterinary Diagnostic and Production Animal Medicine (VDPAM)</b> |                                       |           |                                     |           |  |           |                      |
| 2019  | 11                                    | 1,316,420 | 9                                   | 191,025   | 94                                       | 2,145,902 | US: 3<br>Non-US: 10  |
| 2020  | 27                                    | 2,749,885 | 9                                   | 239,690   | 53                                       | 1,561,031 | US: 4<br>Non-US: 79  |
| 2021  | 17                                    | 3,084,625 | 8                                   | 543,629   | 72                                       | 1,629,494 | US: 15<br>Non-US: 16 |
| 2022  | 25                                    | 3,644,337 | 20                                  | 1,544,966 | 77                                       | 1,775,115 | Non-US: 20           |
| 2023  | 20                                    | 6,851,768 | 22                                  | 1,390,092 | 44                                       | 1,571,716 | US: 4<br>Non-US: 11  |
| <b>Veterinary Microbiology and Preventive Medicine (VMPM)</b>       |                                       |           |                                     |           |  |           |                      |
| 2019  | 33                                    | 2,976,995 | 5                                   | 478,189   | 10                                       | 580,769   | US: 1<br>Non-US: 5   |
| 2020  | 14                                    | 3,002,454 | 3                                   | 75,281    | 7  | 485,660   | Non-US: 2            |
| 2021  | 21                                    | 3,966,284 | 6                                   | 225,550   | 9  | 629,320   | US: 1                |
| 2022  | 20                                    | 3,183,231 | 9                                   | 241,293   | 14                                       | 2,136,242 | US: 2                |
| 2023  | 13                                    | 3,104,916 | 3                                   | 291,297   | 4  | 396,097   | US: 2                |
| <b>Veterinary Pathology (VPTH)</b>                                  |                                       |           |                                     |           |  |           |                      |
| 2019  | 11                                    | 240,457   | NA                                  | NA        | 3  | 17,000    | NA                   |
| 2020  | 4                                     | 235,889   | NA                                  | NA        | 6  | 91,315    | NA                   |
| 2021  | 2                                     | 26,297    | 5                                   | 277,757   | 6  | 315,087   | NA                   |
| 2022  | 7                                     | 1,760,959 | 2                                   | 197,665   | 5  | 78,385    | NA                   |
| 2023  | 3                                     | 600,359   | NA                                  | NA        | NA                                       | NA        | NA                   |

| TOTAL CVM |    |            |    |           |     |           |                   |
|-----------|----|------------|----|-----------|-----|-----------|-------------------|
| 2019      | 75 | 9,038,207  | 16 | 725,447   | 143 | 3,676,500 | US: 6 Non-US: 15  |
| 2020      | 58 | 9,421,293  | 22 | 818,326   | 96  | 2,742,744 | US: 7 Non-US: 81  |
| 2021      | 50 | 10,743,736 | 27 | 1,470,246 | 117 | 3,813,293 | US: 18 Non-US: 16 |
| 2022      | 61 | 11,341,209 | 36 | 2,070,982 | 118 | 5,064,336 | US: 5 Non-US: 20  |
| 2023      | 49 | 12,585,406 | 26 | 1,731,139 | 61  | 2,673,349 | US: 12 Non-US: 11 |

NA= No data to report

**Standard 10 – Research Programs, UNL**

Similar to ISU CVM faculty, faculty at UNL have active and productive research programs, and provide veterinary students with regular opportunities to participate in research. Students at UNL (VM1-2) and their faculty mentors participate in the Summer Scholars poster session at ISU. Curricular content related to research at UNL mirrors that provided in VM1-2 years at ISU.







## STANDARD 11. OUTCOMES ASSESSMENT

### 11.1. Student educational outcomes must include, but are not limited to:

***11.1.1 Evidence of direct observations of students performing and/or having attained entry level competence in skills that demonstrate mastery of the nine competencies. Processes must be in place to provide remediation for any of the nine competencies in which students do not demonstrate competence.***

The ISU CVM uses a variety of direct and indirect measures of each clinical competency. Most direct measures are collected during the VM4 year, including: 1) global rating rubrics in required VM4 rotations, 2) a clinical skills checklist, 3) capstone assignments, and 4) rotation-specific mid-rotation formative evaluation. Each required VM4 rotation (see Section 9.1) uses a global rating scale rubric customized to that rotation, and each rubric item is mapped to an AVMA COE clinical competency area. All rubric scores are entered electronically using E-Value on a range of 1-5, with a score of 3 translating to “minimally competent.” Each competency is assessed in multiple rotations, except for Competency 7, which is only assessed in the required Food Animal & Camelid Medicine and Surgery Rotation and Competency 6, which is only assessed in the required Emergency Medicine and Intensive Care Rotation.

If a student’s average score in any individual competency falls below “minimally competent,” this triggers a clinical competency remediation, which is described in the Clinical Remediation Policy, adopted in May 2023 and available to students on VetZone. A memo is sent by OCATS to the student, the instructor of the rotation who assigned the lowest score, and the Department Chair indicating a need for remediation. The rotation instructor works with the student to create an appropriate remediation assignment, which can range from writing a case report to repeating a rotation. Once the student completes the remediation task, they complete a remediation report on E-Value indicating the competency they remediated, the task assigned for remediation, and a reflection on what they learned in the process. This form is then sent to the faculty member for approval; the faculty member has the right to deny, and the student has the right to appeal. OCATS is the final approver if there is no denial or appeal involved. If there is a denial or appeal, the college Assessment Committee has the authority to review the case and makes decisions. Since this process was adopted, there has been one denial. In that case, the Assessment Committee developed a new remediation task, which the student completed successfully. Each student’s appeal process is fully documented on E-Value for review as needed. A comprehensive remediation report is created by OCATS for every 4 weeks; the OCATS Director and the Associate Dean review the remediation reports to examine if there are any negative trends and provide support to students who might need remediation in several areas.

**Table 11.1.a. provides a summary of remediation activities and outcomes for the graduating class of 2024.**

**Table 11.1.a. - Remediation Summary**

|     | Competency   | # Students Requiring Remediation | Rotation(s) Where Identified  |
|-----|--|----------------------------------|---|
| 1a. | Comprehensive patient diagnosis (problem solving skills) | 4                                | VCS 7453 (Small Animal Medicine); VCS 466 (Anesthesiology); VCS 7468 (ICU/Intensive Care) |
| 1b. | Appropriate use of clinical laboratory testing           | 2                                | VCS 7455 (Soft Tissue Surgery); VCS 466 (Anesthesiology)                                  |

|     |  |   |   |
|-----|--|---|---|
| 1c. | Record Management  | 5 | VCS 7453 (Small Animal Medicine); VCS 466 (Anesthesiology); VCS 7468 (ICU/Intensive Care); VDPAM 477 (Food Animal & Camelid Medicine & Surgery) |
| 2.  | Comprehensive treatment planning including patient referral when indicated                 | 1 | VCS 466 (Anesthesiology)  |
| 3a. | Patient Welfare  | 1 | VCS 7455 (Soft Tissue Surgery)  |
| 3b. | Anesthesia and Pain Management   | 2 | VCS 7453 (Small Animal Medicine); VCS 466 (Anesthesiology)  |
| 4.  | Basic surgery skills, experience, and case management                                      | 0 | N/A   |
| 5.  | Basic medicine skills, experience, and case management                                     | 8 | VCS 7453 (Small Animal Medicine); VCS 7463 (Primary Care); VCS 466 (Anesthesiology)   |
| 6.  | Emergency and intensive care case management   | 7 | VCS 7468 (ICU/Intensive Care)   |
| 7a. | Health promotion, disease prevention/biosecurity   | 0 |   |
| 7b. | Zoonosis and food safety   | 0 |   |
| 8a. | Client communications  | 2 | VCS 7453 (Small Animal Medicine); VCS 7468 (ICU/Intensive Care)   |
| 8b. | Ethical conduct  | 3 | VCS 7453 (Small Animal Medicine); VCS 466 (Anesthesiology)  |
| 9.  | Critical analysis of new information and research findings relevant to veterinary medicine | 1 | VCS 466 (Anesthesiology)  |

Note: A total of 20 students required remediation. Some required remediation in more than one area.

Capstone assignments include the Case Correlation Assignment in the VPTH 7456 Necropsy Rotation which requires all students to thoroughly analyze a hospital case, and Radiology Case Analysis assignments in VCS 7460 Radiology, which require students to analyze and interpret radiographs in the context of a clinical scenario. Additionally, all students self-assess in the area of client communication using a complete video recorded medical interview while on the VCS 7463 Primary Care Rotation.

All students are required to verify completion of skills from a Clinical Skills List containing 131 skills. Students demonstrate the skill to a faculty member, House Officer, or technician, and record completion using the “Case Logs” functionality of the E-Value software. The supervisor receives an e-mail which serves as confirmation of successful completion of the skill unless the supervisor rejects it. If the supervisor rejects the logged skill, it must be repeated. Judgements regarding skill completion are binary (yes or no). Reminders are sent automatically to each student until the student has completed the checklist. All students are expected to complete all skills in order to graduate, though the college’s Assessment Committee may authorize exceptions if students are not able to complete tasks for lack of opportunity.

***11.1.2. Describe how student progress is monitored in each academic year and how each student is given formative assessment for their further development or timely remediation.***

Student progress in VM1-3 years is monitored in individual courses, and the instructors have discretion to remediate students who are struggling. Instructors personally email and meet with the students, identify reasons for low performance, and make recommendations for improvement. Students with poor

performance on early examinations can be referred to OASA to be connected with peer tutors and other remedial resources. For students at risk of receiving a final grade of F in a VM1-3 course, the Academic Standards policy provides several options for instructors, including provision of a remediation examination; several ISU CVM instructors utilize this option.

In VM2 year, students in the VCS 7393 Principles of Surgery class are assigned to complete OSCEs in surgical and anesthesia skills, which they are required to repeat until they pass. Similarly, in the VM2 VCS 7398 Anesthesiology course, students are remediated until they master the required clinical skill. In VM4 year, students receive formative feedback in various ways on different clinical rotations. Several rotations (including VCS 7463 Primary Care, VCS 7475 Cardiology, and VCS 7409 Oncology) have instructors meet with students to provide mid-rotation feedback meeting at the end of the first week of the rotation. Other rotations (including VCS 7453 Small Animal Medicine, VCS 7468 ICU, and VCS 7469 Ophthalmology) integrate self-reflections where students assess their own growth and then discuss what they can further improve with the instructor. In VCS 7466 Anesthesiology, students take a pre-rotation quiz to identify areas that students might focus and a post-rotation quiz to see if their performance has improved. In almost all rotations, students receive group feedback as the instructors discuss the cases and address any issues and gaps in student knowledge. The process of clinical competency remediation in VM4 year is described above in Section 11.1.

**11.1.3. NAVLE school score report data and passage rates over the past five years (Table A)**

**Table A – NAVLE**

| Year | Students taking exam(s) | Students passing exam(s) | Average scores |
|------|-------------------------|--------------------------|----------------|
| 2019 | 150                     | 148                      | 507            |
| 2020 | 138                     | 132                      | 506            |
| 2021 | 148                     | 146                      | 510            |
| 2022 | 153                     | 147                      | 504            |
| 2023 | 156                     | 144                      | 485            |

**Table B - Outcomes Assessment Tools (Past 5 years, by Year)**

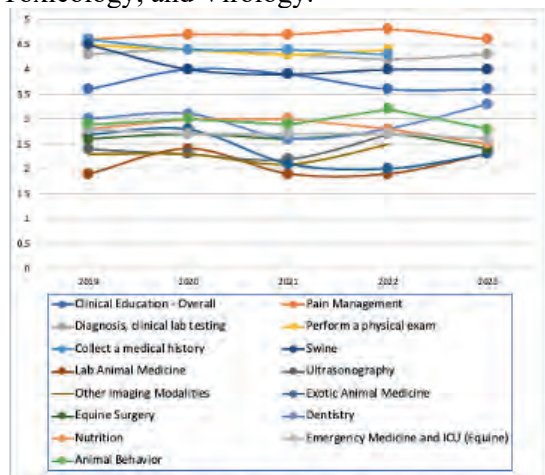
| Survey Audience                                  | Outcomes Assessment Tool Used | Number Sent Out |      |      |      |      | Number Returned/Responded |      |      |      |      |
|--|-------------------------------|-----------------|------|------|------|------|---------------------------|------|------|------|------|
|  |                               | 2019            | 2020 | 2021 | 2022 | 2023 | 2019                      | 2020 | 2021 | 2022 | 2023 |
| Final Year Students                              | Survey                        | 150             | 138  | 149  | 153  | 156  | 88                        | 68   | 72   | 74   | 96   |
| Graduates 1-year Post Graduation                 | Survey                        | 139             | 149  | 136  | 132  | 126  | 24                        | 42   | 35   | 30   | 37   |
| Employers of Graduates 1-year Post Graduation    | Survey                        | 50              | 90   | 87   | 88   | 78   | 16                        | 37   | 41   | 41   | 31   |
| Graduates 5 years Post Graduation                | Survey                        | 138             | 147  | 145  | 130  | 138  | 36                        | 36   | 29   | 26   | 35   |
| Final Year Students (placement and compensation) | Survey                        | 150             | 138  | 140  | 149  | 153  | 136                       | 110  | 122  | 122  | 102  |
| Faculty annual survey                            | Survey                        | 148             | 148  | 118  | 107  | 148  | 42                        | 54   | 30   | 25   | 25   |

**11.1.4. For the outcomes assessment tools used, provide a short narrative that summarizes:**

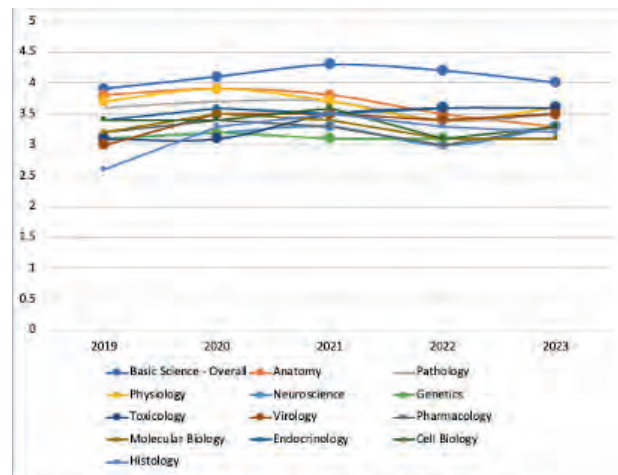
**11.1.4.1. The survey responses.**

All VM4 students are invited to complete an exit survey approximately two months prior to graduation. This 288-item survey assesses a variety of questions including educational preparedness in all required and many elective areas, course offerings, satisfaction with college environment, facilities, advising, student services, faculty, staff, and career interests/plans. All alumni receive a 377-item survey one year and five years post-graduation. The alumni survey addresses educational preparedness in all required and many elective areas. Employers of first-year graduates of our program are invited to complete a 171-item survey each year assessing satisfaction with their graduates. Employers are highly satisfied with ISU CVM graduates, with mean overall satisfaction scores ranging from 4.3-4.6 on a scale of 1 (very unsatisfied) to 5 (very satisfied). Employers also rate graduate preparation in a variety of individual skill and knowledge areas, with generally high satisfaction across areas.

A dashboard that aggregates and summarizes all the outcomes data (i.e. senior exit, alumni, employer, and faculty surveys) across 116 constructs, as well as annual reports containing similar data, are available to all faculty members in the college of veterinary medicine. Figures 11.1.4.1a. and 11.1.4.1b. show the highest and lowest rated areas in the clinical and basic science education areas during the reporting period. In clinical education, the 5 highest-rated areas were pain management, diagnosis and clinical lab testing, performing a physical exam, collecting medical history, and swine. Areas that were rated lower than 3 on a 5-point scale included lab animal medicine, ultrasonography, imaging modalities, exotic animal medicine, equine surgery, dentistry, nutrition, emergency medicine (equine), and animal behavior. With regard to basic science education, overall basic science education displays an improving trend, and all basic science areas were rated higher than 3 on our 5-point scale. The 3 highest-rated areas were Anatomy, Pathology, and Physiology. Areas that are rated low compared to others included Genetics, Toxicology, and Virology.



**Figure 11.1.4.1a. Clinical Education**



**Figure 11.1.4.1b. Basic Science Education**

**11.1.4.2. The college's analysis of the results.**

ISU CVM analyzes survey responses in combination with other outcome assessment measures including the VEA, NAVLE, focus group interviews, and evaluations of individual students in courses and rotations. Analysis of these data sources over the reporting period did not raise concerns in terms of students' basic science knowledge. Therefore, there were no curricular-level recommendations for instructors teaching basic science courses; rather, course-level improvements to enhance student learning and experience. Clinical science areas identified as needing further evaluation included exotic animal

medicine, dentistry, and animal behavior. Radiology and diagnostic imaging has also been identified as an area of concern.

#### ***11.1.4.3 Further actions based on the college's analysis.***

Exotic animal caseload at the LVMC decreased following the 2020 retirement of an exotics-focused clinical faculty member, and a new clinical rotation was implemented to address this gap in 2023: VCS 7425X Rotation in Exotic Pet & Wildlife Medicine Clinical and Surgical Skills. This course provides hands-on medical and surgical experience with reptiles, birds, and small mammals, and has enrolled 22-24 students per year thus far. As described in Section 4.8, students have several elective opportunities in the preclinical (VM1-3) curriculum to gain experience with exotic animal medicine. Interested students can also seek external experiences in the VM4 year with the VCS 423 Zoo Preceptorship (elected by an average of 27 students per year) or VCS 419 Companion Animal Preceptorship at exotics-focused clinics (elected by an average of 10 students per year).

Regarding dentistry, a post-hoc committee analyzed dentistry instruction throughout the curriculum and concluded that students had sufficient exposure to dentistry education provided across multiple courses. Although ISU CVM does not have a stand-alone dentistry course, students receive 5 lecture hours and 3 laboratory hours on dentistry across 4 courses in the VM1-3 required curriculum, and students can also elect the VCS 7480 Veterinary Dentistry course (VM3 elective taken by ~100 students/year). This elective consists of an online course delivered by the University of Illinois paired with a 3-hour optional cadaver head laboratory (taken by ~60 students/year). The ISU CVM Dentistry Club also offers 3 hands-on laboratories per year (averaging 10-20 students per laboratory). For clinical exposure in the VM4 year, we previously offered a stand-alone Veterinary Dentistry and Oral Surgery rotation with limited student enrollment. In 2021, dentistry procedures were integrated into the required VCS 7463 Primary Care rotation such that now all students have hands-on dental experience in the VM4 year. In the Primary Care rotation, all students receive a 1-hour case-based dentistry rounds and a 2-hour cadaver head dentistry laboratory, and students participate in an average of 4-6 dental procedures per rotation with clinical patients. A new elective VM4 rotation, VCS 7439X Community Outreach Elective Surgical Rotation, was implemented in 2024 to provide students with additional hands-on dentistry experience with live animals (12 students enrolled in 2024; estimating 10-12 dental procedures per rotation). Interested students can also elect the VCS 7481 Equine Dentistry Rotation (18 students per year), VCS 7419 Companion Animal Preceptorships with veterinary dentists (elected by average of 15 students per year), and VCS 7459 Shelter Medicine preceptorships at shelters offering dentistry (average of 25 dental procedures experienced by students per year).

Regarding animal behavior, students are provided with instruction on small animal behavior and handling in BMS/VCS 7330 Clinical Foundations (required VM1), and all students are required to become Fear Free Certified (Small Animal Level 1) in this course. The VCS 7449 Surgery Laboratory (required VM3) includes a large Community Outreach component with additional behavior and handling experience. As an option as part of their grading in that course, students can become Fear Free Certified (Level 2) or pursue a second basic certification (Equine, Exotics, or Shelter). Discussions on how to augment opportunities for large animal handling and behavior are ongoing.

In Radiology, a new external instructor was recently contracted to teach VCS 7448 Diagnostic Imaging and Radiobiology, and the new course has been well received by students. Additionally, as reported in Section 9.2, beginning in Spring 2025, students will take VCS 7448 earlier in the curriculum, which is anticipated to improve their integration of radiology knowledge with subsequent knowledge gained in medicine and surgery.

#### ***11.1.4.4. The impact of any actions taken.***

Integration of dentistry into the required Primary Care rotation in 2021 has resulted in increased ratings in dentistry education in subsequent year surveys. Changes in the radiology instructor have also increased ratings, though it is too early to judge longer-term impact. Other changes, such as the implementation of new VM4 rotations and course reordering, were implemented recently enough that we do not have sufficient information to assess their impact. These will remain areas of scrutiny in future outcome assessments.

### ***11.2. Program Outcomes*** (See Tables C and D)

#### ***11.2.3. Assessments by faculty (and other instructors, for example interns and residents) related to such subjects as adequacy of clinical resources, facilities and equipment, information resources, etc.; and preparedness of students entering phases of education.***

Faculty satisfaction with the adequacy of resources is assessed through the Collaborative on Academic Careers in Higher Education (COACHE) survey that the university conducts approximately every 4 years. In the 2020-2021 COACHE survey, ISU CVM was rated 3.75 on a scale from 0 to 5 with regard to satisfaction with facilities and work resources. House Officers complete annual Program Reviews addressing numerous aspects of their training programs, including clinical resources. These data are analyzed annually by the House Officer Committee, and results are used to improve program structure and also to advise hospital administrators to optimize the educational environment for trainees.

Each year, ISU CVM teaching faculty are surveyed regarding the degree to which prerequisites prepare students for subsequent courses. The first section refers to undergraduate courses that are required for admission to ISU CVM. The second section refers to basic science courses taken in the first two years at ISU CVM. The final section refers to clinical courses taken prior to the VM4 year. Faculty rate the students' preparation overall in these courses, as reflected in subsequent courses. This data is triangulated with other surveys (e.g. employer, alumni, senior exit) to make any curricular changes, as faculty expectations are typically higher than those of students, alumni and employers.

#### ***11.2.4. Additional assessment that might assist the college in benchmarking its educational program.***

As mentioned in several prior sections, ISU CVM utilizes the Veterinary Educational Assessment (VEA) of the ICVA to provide benchmarking information regarding our educational program. Our administrators also participate regularly in inter-college meetings and discussions (such as the monthly meetings of the Associate Deans for Academic Affairs, regular meetings of the AAVMC Academic Standards Committee, and the annual AAVMC meeting) to provide comparative data for our educational program and activities.

### **11.3. Institutional outcomes.**

#### ***11.3.1. Describe the adequacy of resources and organizational structure to meet the educational purposes (dean should provide).***

ISU CVM continues to have adequate financial, personnel, and infrastructure resources to maintain its educational mission. Decreasing investment by the State of Iowa in higher education creates challenges to maintain financial resources. Furthermore, the resource management model employed by the university has put a strain on our budget as our success in maintaining enrollment (compared to decreased enrollment at the undergraduate levels) has increasingly shifted central university wide expenses to us. To offset these challenges, we have employed an all-funds approach to maintain excellence in our educational mission by growing services (hospital, diagnostic lab, etc), increasing research funding



**11.2.1. Student attrition rates with reasons (Table C)**  
**Table C - Attrition**

| Graduation Cohort | Cohort Enrollment at the time of Matriculation | Relative Attrition |                  |                                 |                          |                            | Absolute Attrition |                  |                          |                            |                 |                   |
|-------------------|--|--------------------|------------------|---------------------------------|--------------------------|----------------------------|--------------------|------------------|--------------------------|----------------------------|-----------------|-------------------|
|                   |  | Academic Reasons   | Personal Reasons | Transfer to Another DVM Program | Total Relative Attrition | Percent Relative Attrition | Academic Reasons   | Personal Reasons | Total Absolute Attrition | Percent Absolute Attrition | Total Attrition | Percent Attrition |
| 2023              | 153  | 1                  | 6                | 1                               | 8                        | 5.2%                       | 2                  | 0                | 2                        | 1.3%                       | 10              | 6.5%              |
| 2024              | 157  | 1                  | 3                | 1                               | 5                        | 3.2%                       | 4                  | 2                | 6                        | 3.8%                       | 11              | 7.0%              |
| 2025              | 158  | 1                  | 2                | 0                               | 3                        | 1.9%                       | 4                  | 7                | 11                       | 6.9%                       | 14              | 8.9%              |
| 2026              | 160  | 3                  | 0                | 0                               | 3                        | 1.9%                       | 12                 | 1                | 13                       | 8.1%                       | 16              | 10%               |
| 2027              | 157  | 7                  | 4                | 0                               | 11                       | 7.0%                       | 2                  | 1                | 3                        | 1.9%                       | 14              | 8.9%              |

**11.2.2. Employment rates of graduates (within one year of graduation) (Table D)**

**Table D – Employment Rates**

| Graduating Class | Total # graduates (number of respondents) | Employed in field related to veterinary training | Graduates in advanced clinical training (internships/residencies) | # in advanced academic training (Masters/PhD) |
|------------------|---|--|---|---|
| 2023             | 156 (95)                                  | 63   | 24  | 1   |
| 2022             | 159 (101)                                 | 86   | 12  | 0   |
| 2021             | 140 (122)                                 | 111  | 7   | 0   |
| 2020             | 138 (110)                                 | 90   | 15  | 0   |
| 2019             | 147 (134)                                 | 124  | 8   | 0   |

productivity, increasing our endowment, growing direct line item state funding (VDL support), and modest increases in tuition. This approach has allowed us to continue to invest in our facilities, personnel and education programs while maintaining an overall cost of education that is in the lower quartile for residents and the lower half for non-residents (US schools). Our facilities continue to be adequate and we are committed to continuous improvement of our facilities. As discussed, the new VDL will not only provide state-of-the-art veterinary diagnostic services, but serve as another training laboratory for professional and graduate students and open up space that will be renovated in part to support our educational missions. Finally, we have adequate personnel and staff to deliver an outstanding education to our current student population. The largest challenge moving forward is workforce recruitment and retention.

***11.3.2 Describe how the college evaluates progress in meeting its mission and fulfilling its commitment to diversity (for example, benchmarking with other institutions, scholarly activity of the faculty, faculty awards, faculty and staff perception of teaching resources, student satisfaction with the educational program, teaching improvement benchmarks, faculty, staff, and student perception of the college climate, and others, etc.).***

ISU CVM employs a variety of mechanisms for evaluating its progress in meeting its mission and fulfilling its commitment to diversity.

The AAVMC Comparative Data report provides a variety of valuable information for benchmarking, including faculty productivity, salaries, total cost of education (educational value), diversity of faculty, staff and students, attrition, and so forth. The AVMA graduating senior survey provides comparative information regarding graduating student placement and salaries. The ISU CVM ranks in the top 5-10 institutions in a number of areas including affordability and faculty research productivity. The college also relies on a variety of external reviews including accreditation reviews for the college (AVMA-COE), and the various units of the college (LVMC by AAHA in 2023, VDL by AAVLD in 2023, and LAR by AAALAC in 2023) play significant roles in evaluation of our programs. The CVM Executive Cabinet regularly reviews reports from college business entities, and the broader CVM Cabinet also focuses on academic outcomes. ISU CVM also reviews faculty scholarly activity, faculty teaching awards, and student satisfaction with courses and faculty teaching on an annual basis when each faculty member's performance is reviewed. Students also participate as members of the Curriculum Committee and Student-Faculty relations committee, and use those committees to provide feedback.

For measuring its progress in the area of diversity, ISU CVM regularly monitors factors such as the diversity of its student body, student perception of the social climate of the college, information regarding who accepts offers of admission and why, and availability of scholarships for incoming students, including students from underrepresented groups.

The ISU CVM has a significant focus on the educational process, scholarly teaching, and the scholarship of teaching. Our regular senior exit survey measures student satisfaction with the educational experience, including a rating of the overall educational experience, overall social environment, and amount learned for time invested. Collectively, our students have rated these items as good to excellent over the past five years. The ISU CVM was one of the early leaders in veterinary education assessment, being among the first to hire an educational group into a college (OCATS). Scholarship of teaching and learning is a strength of both the college and university, and is used to support faculty promotion and advancement. Scholarly activities of faculty are evaluated during annual, mid-career, promotion and tenure, advancement, and post-tenure reviews by a well-delineated university process. ISU CVM faculty are nominated for and receive a number of national, international, university and college awards. ISU CVM faculty have recently received the ISU Award for Outstanding Achievement in Teaching, ISU Award for Outstanding Achievement in Research, ISU Award for Outstanding Achievement in Extension or

Professional Practice, and the AAVMC Distinguished Veterinary Teacher Award (by Zoetis). ISU CVM faculty also hold numerous national leadership appointments.

***11.3.3 If your program assesses other outcomes, briefly describe the results.***

In addition to the factors mentioned above, our college also regularly conducts ad-hoc surveys of students regarding a variety of factors of immediate interest including facilities, administrative services, and safety. We also survey alumni to determine the area of the veterinary profession in which they are working, their satisfaction with factors such as salary and work environment, and their indebtedness. While results vary, we have employed student feedback in making a variety of recent decisions, including no longer publishing the Dean's List on the CVM webpage, maintaining our contract with drip.vet for financial literacy instruction, and deciding how to remodel the facility.

***11.4. Describe how outcomes findings at the student, programmatic, and institutional level are used by the college to improve the educational program (give examples).***

Generally, we receive more assessment information each year than we can feasibly act on. Therefore, ISU CVM employs a systematic process for reviewing and determining which assessment information to act on and when: 1) Annually, all survey responses from exiting seniors, alumni, and employers are analyzed by OCATS, and a report of longitudinal trends (focusing exclusively on potential areas of improvement) is sent to the Curriculum Committee. A curricular dashboard, which shows longitudinal data since 2007, is available to assist in visualizing trends. The Curriculum Committee determines whether deficiencies need to be addressed coordinates plans for improvement if necessary. 2) Student evaluations of teaching are reviewed annually by Department Chairs and discussed with teaching faculty during their annual reviews. When warranted, Chairs work with teaching faculty to develop plans to improve in targeted areas. 3) Students are evaluated by faculty in courses and rotations, and evaluations are recorded via E-Value. These evaluations are explored for systematic educational deficits. 4) Student leaders meet regularly with the Dean and his leadership team to discuss programs and facilities and make recommendations. 5) Every 5-7 years we conduct a comprehensive review of our curriculum. Our most recent review was completed in 2022.

The following changes (by category), which have occurred since 2018, have been informed by one or more of the assessment activities above:

**Curriculum:**

Assessment-informed curricular changes include establishment of Year Coordinators (2017-18) for vertical and horizontal integration, improved exam timing and establishment of morning exam blocks (2017 – 2021, incrementally), reintroduction of microscopy education (2019-2020), improved sequencing of surgical education (2019 – 2020), one-week production animal immersion experience implemented for first year UNL students at the PPVM (GPVEC, 2019-2020), and pilot of a new CBVE-based assessment instrument in the fourth year (conducted in Spring 2023).

**Wellness:**

We have made a number of changes to address student wellness, derived largely from student surveys and meetings. Changes include hiring of a full FTE clinical counselor (2018), installing a fitness center at the ISU CVM (2018-19), implementation of Student Duty Hours guidelines (2018-2019), making counseling available to all students at the PPVM (UNL, 2018-2019), renovation of Fish Tank Lobby and Commons area (expansion of student/public space) (2019-2020), installation of a bike path for safer access to the bus stop (2019-2020), and opening of food pantries (both at ISU and at UNL, 2021-2022).

**Facilities:**

We have made a number of renovations and improvements to college spaces, informed largely by data from student surveys and meetings. Improvements include modifications to the library for improved study and testing space (2018), multiple improvements to teaching labs (2018), expansion and improvement of Classroom 2532 (2019-2020), development of a new Clinical Skills Lab (UNL, 2019-2020), renovation of Wilcke Suites (student study areas) including more natural light (2021-2022), and refurnishing of the CVM Library (2021-2022).

## Glossary of Acronyms

|        |  |          |  |
|--------|--|----------|--|
| AAAS   | American Association for the Advancement of Science                    | AVMA     | American Veterinary Medical Association                      |
| AAALAC | Association for Assessment and Accreditation of Laboratory Animal Care | BMS      | Biomedical Sciences Department                               |
| AAHA   | American Animal Hospital Association                                   | BQA      | Beef Quality Assurance                                       |
| AAVLD  | American Association of Veterinary Laboratory Diagnosticians           | BSL      | Biosafety Level  |
| AAVMC  | Association of American Veterinary Medical Colleges                    | BVIP     | Bovine Veterinary Internship Program                         |
| ABSL   | Animal Biosafety Level   | BVS & AH | Bachelor of Veterinary Science and Animal Husbandry          |
| ABVP   | American Board of Veterinary Practitioners                             | BVSc     | Bachelor of Veterinary Science                               |
| ABVT   | American Board of Veterinary Toxicology                                | CAPS     | Counseling and Psychological Services (UNL)                  |
| ACAW   | American College of Animal Welfare                                     | CASNR    | College of Agricultural Sciences and Natural Resources (UNL) |
| ACGIH  | American Conference of Governmental Industrial Hygienists              | CAST     | Center for Academic Success and Transition (UNL)             |
| ACPV   | American College of Poultry Veterinarians                              | CBVE     | Competency-Based Veterinary Education                        |
| ACT    | American College of Theriogenologists                                  | CDDR     | Controlled Drug Disposition Record                           |
| ACVAA  | American College of Veterinary Anesthesia and Analgesia                | CELT     | Center for Excellence in Learning and Teaching               |
| ACVCP  | American College of Veterinary Clinical Pharmacology                   | CFC      | Couple and Family Clinic (UNL)                               |
| ACVD   | American College of Veterinary Dermatology                             | CFSPH    | Center for Food Security and Public Health                   |
| ACVECC | American College of Veterinary Emergency and Critical Care             | CHS      | Capital Humane Society                                       |
| ACVIM  | American College of Veterinary Internal Medicine                       | CR       | Credit Hour  |
| ACVM   | American College of Veterinary Microbiologists                         | CSA      | Campus Safety Ambassador                                     |
| ACVO   | American College of Veterinary Ophthalmologists                        | CSL      | Clinical Skills Lab  |
| ACVP   | American College of Veterinary Pathologists                            | CSPC     | Counseling and School Psychology Clinic (UNL)                |
| ACVPM  | American College of Veterinary Preventive Medicine                     | CTE      | Chronic Traumatic Encephalopathy                             |
| ACVR   | American College of Veterinary Radiology                               | CVF      | Christian Veterinary Fellowship                              |
| ACVS   | American College of Veterinary Surgeons                                | CVIS     | Cyclone Veterinary Information System                        |
| ACZM   | American College of Zoological Medicine                                | CVM      | College of Veterinary Medicine                               |
| ADA    | Americans with Disabilities Act  | DNR      | Department of Natural Resources                              |
| ALARA  | As Low As Reasonably Achievable  | DSc      | Doctor of Science  |
| AMR    | Antimicrobial Resistance   | DVM      | Doctor of Veterinary Medicine                                |
| ANSC   | Animal Sciences Complex (UNL)  | ECVECC   | European College of Veterinary Emergency and Critical Care   |
| APHIS  | Animal and Plant Health Inspection Service                             | ECVIM    | European College of Veterinary Internal Medicine             |
| ASCI   | Animal Sciences Complex (UNL)  | ECVO     | European College of Veterinary Ophthalmologists              |
| ASCP   | American Society for Clinical Pathology                                | ECVPT    | European College of Veterinary Pharmacology & Toxicology     |
| ATI    | Acculabs Technologies, Inc.  | ECVS     | European College of Veterinary Surgeons                      |
| AVDC   | American Veterinary Dental College                                     | EHS      | Environmental Health and Safety                              |
|        |  | EMR      | Electronic Medical Records                                   |
|        |  | ENREC    | Eastern Nebraska Research and Extension Center               |
|        |  | FACH     | Food Animal and Camelid Hospital                             |
|        |  | FERPA    | Family Educational Rights and Privacy Act                    |
|        |  | FP&M     | Facilities Planning and Management                           |
|        |  | FTE      | Full Time Equivalent   |

|          |   |           |   |
|----------|---|-----------|---|
| gsf      | gross square foot   | PPVM      | Professional Program in Veterinary Medicine (UNL)               |
| GPVEC    | Great Plains Veterinary Educational Center                            | PRS       | Position Responsibility Statement                               |
| HEPA     | High-Efficiency Particulate Air                                       | RNDr      | Rerum naturalium doctor   |
| IACP     | Institutional Animal Care Program (UNL)                               | QS        | Quacquarelli Symonds  |
| IACUC    | Institutional Animal Care and Use Committee                           | SAML      | Security Assertion Markup Language                              |
| IBC      | Institutional Biosafety Committee                                     | SAS       | Student Accessibility Services                                  |
| ICU      | Intensive Care Unit   | SAVMA     | Student American Veterinary Medical Association                 |
| ICVA     | International Council for Veterinary Assessment                       | SLA       | Student Leadership Assembly                                     |
| IRB      | Institutional Review Board  | SMEC      | Swine Medicine Education Center                                 |
| ISU      | Iowa State University   | SSD       | Services for Students with Disabilities (UNL)                   |
| IT       | Information Technology  | SSRP      | Summer Scholar Research Program                                 |
| IVS      | Iowa Veterinary Specialties   | SVIP      | Swine Veterinary Internship Program                             |
| LAR      | Laboratory Animal Resources   | SVPP      | Senior Vice President and Provost                               |
| LIDIF    | Livestock Infectious Disease Isolation Facility                       | SVMBS     | School of Veterinary Medicine and Biomedical Sciences (UNL)     |
| LMS      | Learning Management System  | T35       | Short-Term Institutional Research Training Grants (NIH)         |
| LVMC     | Lloyd Veterinary Medical Center                                       | UNL       | University of Nebraska Lincoln (UNL)                            |
| MAM      | Master of Avian Medicine  | URVM      | Underrepresented in Veterinary Medicine                         |
| MBA      | Master Business Administration  | USDA      | United States Department of Agriculture                         |
| MPH      | Master of Public Health   | USDA-NIFA | USDA-National Institute of Food and Agriculture                 |
| MRCVS    | Member of the Royal College of Veterinary Surgeons                    | USMARC    | US Meat Animal Research Center                                  |
| MVM      | Master of Veterinary Medicine   | VBS       | Veterinary Medicine and Biomedical Sciences Building (UNL)      |
| MSc      | Master of Science   | VBSA      | Veterinary Medicine and Biomedical Sciences Annex (UNL)         |
| MVSc     | Master of Veterinary Science  | VCS       | Veterinary Clinical Sciences Department                         |
| NAVLE    | North American Veterinary Licensing Examination                       | VECCS     | Veterinary Emergency & Critical Care Society                    |
| NCHU     | National Chung-Hsing University                                       | VDL       | Veterinary Diagnostic Laboratory                                |
| NIAMRRE  | National Institute of Antimicrobial Resistance Research and Education | VDPAM     | Veterinary Diagnostic and Production Animal Medicine Department |
| NIFA     | National Institute of Food and Agriculture                            | VEA       | Veterinary Educational Assessment                               |
| NIH      | National Institutes of Health   | VFS       | Veterinary Field Services                                       |
| NRNC     | non-resident non-contract   | VMCAS     | Veterinary Medical College Application Service                  |
| nsf      | net square foot   | VMD       | Veterinary Medicine Doctor                                      |
| NSF      | National Science Foundation   | VML       | Veterinary Medical Library                                      |
| NSF-GRFP | NSF Graduate Research Fellowship                                      | VMPM      | Veterinary Microbiology and Preventive Medicine Department      |
| NVDC     | Nebraska Veterinary Diagnostic Center (UNL)                           | VMRI      | Veterinary Medical Research Institute                           |
| OASA     | Office of Academic and Student Affairs                                | VPR       | Vice President for Research                                     |
| OCATS    | Office of Curricular Assessment and Teaching Support                  | VPTH      | Veterinary Pathology Department                                 |
| OEO      | Office of Equal Opportunity   |           |   |
| OSCE     | Objective Structured Clinical Examination                             |           |   |
| OSHA     | Occupational Safety and Health Administration                         |           |   |
| PA-VEAP  | Production Animal – Veterinary Early Acceptance Program               |           |   |
| PEF      | Equine Performance Evaluation Facility                                |           |   |
| PGCertHE | Postgraduate Certificate in Higher Education                          |           |   |