**UNIT REPORT** 

Veterinary Medicine (DVM) - 01.Reviewer's Report - Academic Data

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# **Veterinary Medicine (DVM)**

# **DVM Veterinary Medicine**

#### Mission:

The UF College of Veterinary Medicine (CVM) is the state's only veterinary college, graduating its first class of veterinarians with the Doctor of Veterinary Medicine (DVM) degree in 1980. The University of Florida's College of Veterinary Medicine DVM degree program has been accredited by the American Veterinary Medical Association Council on Education throughout its existence. The CVM faculty has developed a strong curriculum of professional study that is designed to meet the mission of preparing the next generation of veterinarians for broad veterinary career paths. This program aligns with the College of Veterinary Medicine mission statement, which is "The College of Veterinary Medicine advances animal, human, and environmental health through education, research, and patient care." It also aligns with the University's mission "to lead and serve the state of Florida, the nation and the world by pursuing and disseminating new knowledge while building upon the experiences of the past."

Program Type and Level: Professional Doctorate

**Start:** 07/01/2022 **End:** 06/30/2023

**Program:** Veterinary Medicine (DVM)

**Program CIP: 01.8001** 

**Site Information:** On Campus (Residential)

If Other Site::

Responsible Roles: Amanda House (housea@ufl.edu), Dana Zimmel (zimmeld@ufl.edu), Sarah Bell (scorbitt@ufl.edu)

# PG 1 Classroom, Clinical, and Research Experiences

### Goal:

To offer classroom and clinical experiences, and research exposure necessary to qualify them for a variety of career paths within veterinary medicine.

**Program:** Veterinary Medicine (DVM)

### **Evaluation Method:**

- 1. Degree candidates are asked to document their immediate post-graduation employment decision
- 2. Employer survey distributed at 12 months post-graduation
- 3. Alumni survey distributed at 18 months post-graduation

Attached Files

### Results:

1. Post-graduation career plans for the students who graduated in 2023: Of the 117 respondents, 108 indicated that they accepted a position in veterinary medicine, and 9 respondents indicated they have not yet accepted a position. 30 of the 108 students are pursuing internships or residencies. One student is pursuing a PhD in One Health, and four students accepted positions in the military.

	Associate	Intern	Resident	Decision Pending	Other	TOTAL
Small Animal	59	14		5		78
Equine	1	10				11
Large Animal	1	1			1	3
Shelter	3			1		4
Mixed Animal	5			2		7

<b>Exotic Animal</b>	1	3		1		5
Military	2				2	4
Other			2		3	5
TOTAL	72	28	2	9	6	117

2. **Employer survey data:** 38 employers responded to the annual employer survey for the Class of 2022. Employers rate the UFDVM graduates as either meeting or exceeding their expectations (at or above 90%) in 8 of the 14 areas on the survey. Those areas are foundational knowledge, anesthesia and pain management, clinical decision-making, basic medicine skills, one health knowledge, diversity, respect, and multicultural awareness, animal welfare and ethical conduct, and lifelong learning skills.

In 6 areas, employers rate the UF DVM graduate as either meeting or exceeding their expectations at a rate lower than 90%, all of which were rated higher than 80%. Those areas are basic surgery skills (82%), emergency and intensive care case management (82%), communication (89%), collaboration (84%), management of self and team (82%), and financial and business skills (84%).

	Below Expectations	Meets Expectations	Exceeds Expectations	N/A	% Meets or Exceeds Expectations
Foundational Knowledge Base	0	19	19	0	100%
Anesthesia and Pain Management	1	26	10	1	95%
Clinical Decision- Making	0	22	16	0	100%
Basic Medicine Skills	0	22	16	0	100%
Basic Surgery Skills	6	20	11	1	82%
Emergency and Intensive Care Case Management	4	23	8	3	82%
One Health Knowledge	0	29	6	3	92%
Communication	4	13	21	0	89%
Collaboration	6	10	22	0	84%
Diversity, Respect, and Multicultural Awareness	0	14	21	0	100%
Management of Self and Team	7	12	19	0	82%
Animal Welfare and Ethical Conduct	0	17	24	0	100%
Lifelong Learning	3	14	21	0	92%
Financial and Business Management Skills	4	25	7	2	84%

3. **Alumni survey data:** When the 2021 graduates were surveyed after 18 months, 13 alumni responded to the alumni survey. Alumni rated the DVM program as meeting or exceeding their expectations (at or above 90%) in seven of the 14 areas assessed: foundational knowledge, one health knowledge, collaboration, management of self and team, animal welfare and ethics, lifelong learning, and diversity, respect, and multicultural awareness.

In seven areas, alumni rated the DVM program as meeting or exceeding their expectations at a rate lower than 90%. Those

areas are anesthesia and pain management, clinical decision-making, basic medicine skills, basic surgery skills, emergency and intensive care case management, communication, and financial and business skills. Of these areas, basic surgery skills and financial and business management skills were rated below expectations by half or more than half of the 13 alumni.

	Below Expectations	Meets Expectations	Exceeds Expectations	N/A	% Meets or Exceeds Expectations
Foundational Knowledge Base		8	5		100%
Anesthesia and Pain Management	2	7	3		83%
Clinical Decision- Making	2	7	4		85%
Basic Medicine Skills	2	7	4		85%
Basic Surgery Skills	6	4	2	1	50%
Emergency and Intensive Care Case Management	3	9		1	75%
One Health Knowledge	1	12			92%
Communication	2	8	3		85%
Collaboration	1	9	3		92%
Diversity, Respect, and Multicultural Awareness	1	7	5		92%
Management of Self and Team	1	10	2		92%
Animal Welfare and Ethical Conduct	1	9	3		92%
Lifelong Learning		11	2		100%
Financial and Business Management Skills	7	4	2		46%

# PG 2 Advanced Clinical Specialty or Post-Graduate Research Training

# Goal:

To engage students in a level of training that ensures they will be competitive applicants for advanced training and/or professional practice.

Program: Veterinary Medicine (DVM)

# **Evaluation Method:**

- 1. Graduates from the DVM program will obtain an offer for advanced training to an academic internship as evidenced by the outcome of the Veterinary Medicine Intern/Resident Match Program (VIRMP). The 'match' criterion is that our students' matches will be above the national average.
- 2. Students will pass the NAVLE, the national licensure examination, and will achieve a pass of 95% for first time test takers.

# Results:

- 1. 71.43 percent of UF DVM graduates that applied for internships in 2023 were matched. This was more than the national average at 64.22% matched.
- 2. According to the 2022 Interim School Report from the International Council for Veterinary Assessment, 98 of 116 (89%) first-time test takers passed the NAVLE assessment in the November-December testing window. While we did not meet our

program goal this year (95% pass rate for first-time test takers), our students scored higher than the national average (79%) - which also saw a drop in scores this year. We believe this maybe due to the COVID-related closures that would have affected this cohort of students in their first year of veterinary school.

Attached Files

# **SLO 1 Apply Foundational Knowledge**

#### **Outcome:**

Students identify, explain, describe and apply foundational knowledge pertinent to established and emerging areas of veterinary practice.

SLO Area (select one): Knowledge (Grad)

Assessment Methods Checklist: Faculty developed examination(s)/test(s)

#### **Assessment Method Narrative:**

Students are assessed in the didactic curriculum (first 2 years of the DVM Program) using faculty-created criterion referenced assessments in ExamSoft. Each test item is tagged to one of the competencies outlined in the CVM Educational Framework (adapted from the Competency-Based Veterinary Education approach from the AAVMC by college faculty).

Only competencies with at least 5 tagged test items will be considered. Students will have met the outcome if they mastered at least 60 percent of the content in that category.

#### **SLO Not Assessed This Year:**

Threshold of Acceptability: 85

How many students did you assess for this outcome?: 272

How many students met the outcome?: 248

What percentage of students met the outcome?: 91

Does this meet your threshold of acceptability?: Yes

Results:

# First-Year Students: Class of 2026

For the first-year students (Class of 2026), 1282 test items were tagged to one of the following competencies:

Competency	Average Score	Students Demonstrating Mastery
Foundational Scientific Knowledge	86%	150
Clinical Decision-Making (Diagnosis)	85%	149
Basic Surgery Skills	83%	131
Animal Welfare and Ethical Conduct	94%	150

<sup>131</sup> of 150 students demonstrated mastery of at least 60 percent of the test items tagged to these competencies with 100 percent of students demonstrating strong progress in the Foundational Scientific Knowledge and Animal Welfare and Ethical Conduct competencies.

Test items tagged Basic Surgery Skills proved to be most challenging for the 19 students who were unable to demonstrate mastery in this content area. It is important to note, mastery of this content is not expected in the first year, as the first year of curriculum is dedicated to normal animal physiology and behavior. Mastery of all competencies is not expected until graduation.

# Second-Year Students: Class of 2025

For the second-year students (Class of 2025), 2404 test items were tagged to one of the following competencies:

Competency	Average Score	Students Demonstrating
1 7	· ·	Mastery
Foundational Scientific Knowledge	88%	122
Clinical Decision-Making Skills (Diagnostics)	85%	122
Clinical Decision-Making Skills (Treatment)	84%	122
Anesthesia and Pain Management	80%	120
Basic Surgery Skills	90%	122
Basic Medicine Skills	86%	122
Emergency and Intensive Care Case	89%	121
Management	0970	121
One Health (Animal, Human, Environmental)	89%	119

<sup>117</sup> of 122 students demonstrated mastery of at least 60 percent of the test items tagged to these competencies with 100 percent of students demonstrating strong progress in the Foundational Scientific Knowledge, Clinical Decision-Making Skills \*diagnosis and treatment, Basic Surgery Skills, and Basic Medicine Skills.

Test items tagged to "One Health" proved most challenging for a few students in this class.

### **SLO 2 Technical Skills**

Outcome: Apply the technical skills required for veterinary practice.

SLO Area (select one): Skills (Grad)

**Assessment Methods Checklist:** Other - please describe in the Assessment Method Narrative.

#### **Assessment Method Narrative:**

Students are assessed using "Student Learning Opportunities" - procedures that are demonstrated by the students. A list of Graduation-Required Student Learning Opportunities were compiled by college faculty. Students must demonstrate appropriate mastery of the task, submit the task for review to the observing faculty, and faculty must approve or reject the student's request. Each student is required to complete 80 percent of the graduation-required list prior to graduation as part of the degree requirement.

Attached Files

#### **SLO Not Assessed This Year:**

Threshold of Acceptability: 98

How many students did you assess for this outcome?: 117

How many students met the outcome?: 117

What percentage of students met the outcome?: 100 Does this meet your threshold of acceptability?: Yes

#### Results:

Of the 117 students who have graduated or are scheduled to graduate before the end of the 2023 calendar year, all 117 students met this outcome.

When this class transitioned into the clinical phase in May of 2021, students were required to complete 80% of the list of 128 SLOs (102 individual SLO submissions).

Additional SLOs were added to the graduation-required SLO list in August of 2021 focused on dentistry content. Students in the Class of 2023 were held to the original standard of 102 SLOs obtained prior to graduate.

In addition to meeting 80% of their original list of graduation-required SLOs (count = 102), the Class of 2023 also was required to complete four additional SLOs as required by the AVMA (American Veterinary Medical Association) in December 2022: 3 new SLOs in positioning patients for radiographs and 1 new SLO in performing an ultrasound. All students were able to complete these additional SLOs prior to graduation while on rotations in the Spring 2023 semester.

**Note:** Beginning with the Class of 2023 - all students must complete the four new SLOs above as mandated by the AVMA. Beginning with the Class of 2025, all students must complete all SLOs on their graduation-required list as recommended by the CVM Curriculum Committee and approved by the Faculty Assembly in the Spring of 2023. The Class of 2024 will be held to the current standard, as it stood when they entered the clinical phase: 80% of the 138 graduation-required SLOs = 110 required (the four new SLOs mandated by the AVMA may count as part of the 110 required).

Attached Files

### **SLO 3 Professional Behavior**

Outcome: Exhibit and practice interpersonal skills and professional behavior.

SLO Area (select one): Professional Behavior (Grad)

Assessment Methods Checklist: Other - please describe in the Assessment Method Narrative

# Assessment Method Narrative:

Students are assessed for professionalism in the Supervised Patient Care and Clinical Skills courses (VEM5200, VEM5202, VEM5203, and VEM5204 - running in semesters 1-4 of the DVM Program) and on the Student Clinical Evaluation Rubric at the end of each clinical clerkship (running in semesters 5, 6, and 9 of the DVM Program).

	Summer	Fall	Spring
Year 1 (Phase 1)		Semester 1 - Didactic	Semester 2 - Didactic
Year 2 (Phase 2)		Semester 3 - Didactic	Semester 4 - Didactic
Year 3 (Phase 3)	Semester 5 - Clinical	Semester 6 - Clinical	Semester 7 - Didactic
Year 4 (Phase 3)		Semester 8 - Didactic	Semester 9 - Clinical

Attached Files

**SLO Not Assessed This Year:** 

Threshold of Acceptability: 98

How many students did you assess for this outcome?: 507

How many students met the outcome?: 505

What percentage of students met the outcome?: 99

Does this meet your threshold of acceptability?: Yes

#### Results:

All students in the Supervised Patient Care and Clinical Skills courses (VEM5200, VEM5202, VEM5203, and VEM5204 - running in semesters 1-4 of the DVM Program) demonstrated satisfactory efforts in professionalism according to their end of term evaluations by course faculty.

Of the 235 students on clinical rotations during the 2022-2023 Academic Year, 233 students (or 98.7 percent) demonstrated satisfactory efforts according to their clinical evaluations at the end of each rotation in professionalism.

Number of Students	Graduation Year	Course/Block	Competency w/ Low Score
1 Student	2024	VEM5872C (Med Onc) / Block N	Communication and Professionalism
1 Student	2024	VEM5745 (SA Ortho Surg) / Block J	Knowledge Base and Professionalism

**Note:** During the 2021-2022 academic year, a recommendation was made to move to a more formative rubric, that will allow faculty and administrators to track student progress across the clinical phase and provide better feedback to students as to where they are in their clinical training. The new rubric will also better align with the language found in the UF CVM and CBVE Frameworks. The new rubric has rolled out and will be used to document student progress for this SLO in the next reporting cycle.

# **SLO 4 Competencies (Skills)**

Outcome: Exhibit the spectrum of clinical competencies needed to practice veterinary practice.

SLO Area (select one): Skills (Grad)

Assessment Methods Checklist: Practica/Internship

Externship

### **Assessment Method Narrative:**

Students will be assessed using the end-of-rotation Student Clinical Evaluation Rubric. Rubrics are tailored to each clinical experience. Some are letter grades and some are pass fail, but all have categories that are tied to the UF CVM Educational Framework's Competencies (adapted from the CBVE Framework - Competency-Based Veterinary Education Framework). Student responses that were sited as less-than satisfactory (or passing with D-) will be reviewed. Sores of "unsatisfactory" or "E" would deem a student as not meeting this SLO.

Attached Files

# **SLO Not Assessed This Year:**

Threshold of Acceptability: 98

How many students did you assess for this outcome?: 235

How many students met the outcome?: 232

What percentage of students met the outcome?: 99

Does this meet your threshold of acceptability?: Yes

### Results:

Of the 235 students on clinical rotations during the 2022-2023 Academic Year, 232 students (or 98.7 percent) demonstrated satisfactory efforts according to their clinical evaluations at the end of each rotation.

Number of Students	Graduation Year	Course/Block	Competency w/ Low Score
1 Student	2024	VEM5872C (Med Onc) / Block L	Knowledge (Quizzes and Exams)
1 Student	2024	VEM5872C (Med Onc) / Block N	Communication and Professionalism
1 Student	2024	VEM5745 (SA Ortho Surg) / Block J	Knowledge Base and Professionalism

**Note:** During the 2021-2022 academic year, a recommendation was made to move to a more formative rubric, that will allow faculty and administrators to track student progress across the clinical phase and provide better feedback to students as to where they are in their clinical training. The new rubric will also better align with the language found in the UF CVM and CBVE

Frameworks. The new rubric has rolled out and will be used to document student progress for this SLO in the next reporting cycle.

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# **Programmatic Use of Results Item**

Improvement Types Checklist: Other changes (please describe in your narrative)

#### **Use of Results for Improvement Narrative - Required:**

The Associate Dean for Academic and Student Affairs and the Outcomes and Assessment Coordinator reviewed the results of the assessment plan. The decrease in the NAVLE scores prompted further discussion on ways to helps students be successful. The college currently offers to help provide students with extra study materials to those students who do not pass the NAVLE on their first attempt. It was decided that, beginning in the Fall of 2023, all third year students will be provided a practice NAVLE test, funded by the college. Also, beginning in Spring of 2024, all second year students will be administered the VEA (Veterinary Educational Assessment). The VEA was created by the same organization that administers the NAVLE and is used by other veterinary colleges to assess the knowledge of their students in the basic or foundational (pre-clinical) subject matter.

At the recommendation of the CVM Curriculum Committee, the college faculty voted to change the requirements for the graduation-required SLO list in May of 2023. Beginning with the Class of 2025, all students will be required to complete a newly revised list of SLOs. Clarification was also provided on the specifications for the submission of SLOs:

- All students will be required to perform all SLOs on the Graduation-Required SLO List in order to receive their degree.
- Any technical, medical, or surgical skills must be performed on live animals. All SLOs will be performed on client-owned animals and/or live animals with the only exception being necropsy.
- All SLOs will be performed with supervision. Coaching may be provided as needed and would not affect approval/denial of the SLO.
- SLOs that do not require a patient to be physically present (i.e. calculate constant rate infusion), may be submitted in the didactic setting.

The new grading rubric for clinical student evaluation was also implemented in May 2023. This new rubric will service as a more formative assessment tool and provide students more accurate feedback on their progress throughout the curriculum.

It was also decided that close monitoring of the employer and alumni survey results for the next year will be required. While most category trends have typically seen satisfaction scores in the 80-90% range, satisfaction ratings for Basic Surgery Skills and Business and Financial Management Skills averaged 80% and 75% by the previous 4 classes. The alumni of the Class of 2021 was a quite drastic change. If this becomes a trend in responses over the next few years, further examination of these categories will be conducted. As discussed in the previous report, the CVM Curriculum Committee recommended changes in the clinical rotation requirements for graduation beginning with the Class of 2026. Small Animal students will be required to attend at least one shelter rotation with high populations of spay/neuter surgeries to increase their exposure to common surgical procedures. Additionally, a financial aid coordinator has been hired to help support students and recent graduates in options on loan repayment and financial decision-making.

Program Results Not Reported This Year:

Program Results Reporting Complete: true

# **DVM Veterinary Medicine AAP Detail**

**Providing Department:** Veterinary Medicine (DVM)

**Assessment Cycle:** 

Assessment Cycle

Analysis and Interpretation: From Summer to Spring

**Improvement Actions:** Completed by Fall of the Following Year

**Dissemination:** Completed by Fall of the Following Year

	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Content Knowledge						
#1: Identify, describe, explain and apply the foundational knowledge pertinent to established and emerging areas of veterinary practice.	Х	X	X	X	Х	Х
Skills						

#2: Apply the technical skills required for veterinary practice.	Х	Х	Х	Х	Х	Х
#4: Exhibit the spectrum of clinical competencies needed in veterinary practice.	Х	Х	Х	Х	Х	Х
Professional Behavior						
#3: Exhibit and practice interpersonal skills and professional behavior.	X	Х	Х	X	X	X

#### **SLO Assessment Rubric:**

Rubric examples are attached to their corresponding SLOs.

#### **Assessment Oversight:**

Name	Department Affiliation	Email Addresses	Phone Number
Amanda House, DVM	Associate Dean, Academic and Student Affairs, College of Veterinary Medicine	housea@ufl.edu	(352) 294-4380
Dana Zimmel, DVM	Dean, College of Veterinary Medicine	zimmeld@ufl.edu	(352) 294-4252
Sarah Bell, EdD	Outcomes and Assessment Coordinator, College of Veterinary Medicine	scorbitt@ufl.edu	(352) 294-4065

**Methods and Procedures - Undergraduate and All Certificate Programs:** 

**Curriculum Map - Undergraduate Degree Programs:** 

#### Research:

The Doctor of Veterinary Medicine degree is not a research degree. However, students are taught to evaluate the scientific bases of knowledge and incorporate new knowledge into the practice of veterinary medicine. This occurs throughout the curriculum as faculty members share their research findings, along with those of others, as they lecture and supervise clinical rotations. Students are exposed to a wide range of basic research (e.g., physiology, neuroscience, infectious disease) and applied research (e.g., oncology, radiology, orthopedic diseases), which is facilitated by the fact that most faculty members teach in the same discipline where they perform their scholarly activities. Students that wish to graduate with honors or high honors are required to complete an individualized investigation course in addition to attaining the appropriate GPAs. This course involves conducting a research project under faculty supervision, writing a paper suitable for publication, and providing either an oral or poster presentation of the results.

### **SLO Measures - Graduate and Professional Programs:**

Program Goal #1: Students are assessed indirectly with surveys for graduates, alumni, and employers. Participants are asked to review DVM student competence in relation to the UF CVM Competencies.

Program Goal #2: Students are assessed directly with the NAVLE - North American Veterinary Licensure Examination.

SLO #1: Students are assessed using criterion-referenced assessments in the didactic curriculum. Exam items are tagged in ExamSoft (testing platform) to assess student attainment of foundational knowledge toward each of the UF CVM Competencies.

SLO #2: Students are assessed using the Graduation-Required Student Learning Opportunities - procedures observed and approved by faculty in either the Supervised Patient Care and Clinical Skills courses or the Clinical Rotations. After performing the procedure, students submit the Student Learning Opportunity to the observing faculty for review and approval or rejection.

SLO #3: Students are assessed using the Student Clinical Evaluation Rubric and the Supervised Patient Care and Clinical Skills Lab courses. Professionalism is a criterion on the rubric for most, but not all, of the clinical rotations in the DVM Program. Criterion are selected by faculty and tailored to the specific clinical experience. In the Supervised Patient Care and Clinical Skills series of courses, students' adherence to specific course policies are used to determine professionalism. Such policies are outlined in the course syllabi.

SLO #4: Students are assessed using the Student Clinical Evaluation Rubric. At the end of each clinical rotation, students are assessed on a rubric tailored to each clinical experience. Students are evaluated on their ability to demonstrate competence across specific criteria that align with the UF CVM Competencies.

### Attached Files

**Assessment Timeline - Graduate and Professional Programs:** 

Didactic Curriculum (Years 1 and 2)	Clinical Curriculum (Years 3 and 4)

		,
SLO #1 (Knowledge)	Core Didactic Examinations (Yrs 1-2)	
SLO #2 (Technical Skill)	Skills Lab Activities (Yrs 1-2)	Clerkship Procedure Submissions (Yrs 3-4)
SLO #3 (Professional Behavior)	Skills Lab Activities (Yrs 1-2)	Clerkship Rubric (Yrs 3-4)
SLO #4 (Skills - Competency)		Clerkship Rubric (Yrs 3-4)

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