



University Council

February 27, 2026

UNIVERSITY CURRICULUM COMMITTEE – 2025-2026

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Dear Colleagues:

The attached proposal from the College of Veterinary Medicine for an Online Graduate Certificate in Foundations in Veterinary Pathology will be an agenda item for the March 6, 2026, Full University Curriculum Committee meeting.

Sincerely,

Susan Sanchez, Chair

cc: Provost Benjamin Ayers

Dr. Marisa Anne Pagnattaro

PROPOSAL FOR AN ONLINE CERTIFICATE PROGRAM

Date: August 25, 2025

School/College/Unit: College of Veterinary Medicine

Department/Division: Pathology

Certificate Title: Foundations in Veterinary Pathology

CIP: 01810800

Effective Term: Fall 2026

Which campus(es) will offer this certificate? Online

Level (Undergraduate, Graduate, or Post-Baccalaureate): Graduate

Program Abstract: The proposed online Graduate Certificate in Foundations in Veterinary Pathology was developed to prepare qualified domestic and international veterinarians and veterinary students for future training in the fields of veterinary anatomic pathology and veterinary clinical pathology. Additionally, it is expected that practicing veterinarians interested in taking a more active role in clinical pathology within their veterinary practice will benefit from this program, as will residents at other programs that lack didactic instruction of veterinary pathology. This program will instruct students in the general molecular mechanisms of pathologic processes. Students will then have the option to specialize in either anatomic pathology or clinical pathology. These discipline-based courses will train students in aspects of histopathology (anatomic pathology) or cytology, hematology, and clinical chemistry (clinical pathology).

Graduates of this program will gain a broader understanding of the basic principles and clinical practices of veterinary pathology as preparation for future specialty training (i.e., residency) and certification in anatomic pathology or clinical pathology, or it may be used to advance their clinical medical skills.

1. Purpose and Educational Objectives

State the purpose and educational objectives of the program. How does this program complement the mission of the institution?

The Graduate Certificate in Foundations in Veterinary Pathology is designed to enhance the pathology education of veterinarians and veterinary students, particularly those with a strong interest in pursuing careers in pathology-related fields. Additionally, most pathology residency training programs lack formal teaching in veterinary pathology, instead relying on case-based instruction, which is inconsistent and unpredictable. Practicing veterinarians with an interest in taking a more active role in clinical pathology within their veterinary practice are also anticipated to benefit. This proposed program seeks to build foundational pathology knowledge and skills, fill educational gaps, expand career opportunities, and strengthen residency applications for those interested in applying to advanced training programs.

Goals of this program include:

- Attracting and training highly qualified applicants in the field of veterinary pathology, especially those that have had limited opportunities to explore this field
- Potentiating successful transition to and/or completion of a pathology residency program
- Enabling practicing veterinarians to take a more active role in clinical pathology

Students completing this certificate program will demonstrate a comprehensive understanding of fundamental pathology concepts and will be able to integrate clinical, laboratory, and pathological findings to support clinical decision making.

2. Need for the Program

Explain why this program is necessary. In addition, provide the following information:

a. Semester/Year of Program Initiation: Fall 2026

b. Semester/Year of Full Implementation of Program: Spring 2027

c. Semester/Year First Certificates will be awarded: Fall 2027

d. Annual Number of Graduates expected (once the program is established): 10

e. Projected Future Trends for number of students enrolled in the program: 25-50

Veterinary pathologists play a critical and multifaceted role in animal and human health, biomedical research, public safety, and environmental health. They safeguard against animal disease by providing accurate diagnoses and disease surveillance, both of which are key to companion animals, livestock, and other populations crucial to Georgia stakeholders. They protect human health by monitoring zoonotic diseases and supporting food safety. They advance biomedical research through the development and interpretation of animal models of disease and contribute to environmental health by diagnosing disease in wild animals. While critical for the reasons indicated above, veterinary pathology is a highly specialized area of training and expertise. As such, it is too specialized for data collected from large surveys (e.g., Bureau of Labor Statistics). This was confirmed after conversations with, and research by, the Office of Online Learning.

Because pathology connects the science of disease with patient care, pathology is often considered the foundation of modern medicine. As such, veterinary pathologists teach foundational disease mechanisms and diagnostic techniques to veterinary students, shaping the next generation of veterinarians. However, the time allocated to it during training is often limited, leading some students to supplement their foundational knowledge through externships, which can vary significantly in scope and depth. For those who develop an interest in pathology later in their veterinary education or after graduation, brief shadowing experiences are often their only exposure to the field and are often difficult to schedule, which leaves them at a disadvantage when applying to competitive pathology training programs. Given the limited number of pathology residency positions available in the United States, most applicants are not selected. In the case of the applicants to University of Georgia veterinary anatomic and clinical pathology residencies, 90–95% of applicants are denied a position each year, often in part due to a lack of experience in the field. Thus, the time scarcity allotted to pathology limits the training for those future clinicians who will be applying pathology to patient care, but it also limits exposure of students to career opportunities in veterinary pathology.

Currently, the field of veterinary pathology attempts to partially address this issue through short (1–2 hours to 4–5 days), specialized pathology courses that are offered through non-university, nonprofit organizations. Additionally, due to their short nature, these courses lack a comprehensive program for developing expertise in veterinary pathology. However, similar to externships and shadowing opportunities, these are not always accessible to working professionals or full-time students due to time and scheduling constraints, which is why all coursework for this graduate certificate will be asynchronous.

Lastly, most North American veterinary pathology training programs lack formal classroom-based instruction. The classic model of instruction relies heavily, if not solely, on case-based instruction, which teaches the residents based on the cases that arrive in their training program. By its very nature, case-based instruction is random, which inhibits learning effectiveness. The Department of Pathology at UGA has long recognized this and has a long history of delivering classroom-based instruction to pathology residents.

This certificate program aims to address these gaps by offering a rigorous and comprehensive online pathology curriculum that enables both domestic and international veterinarians, residents at other universities, and veterinary students to demonstrate competency and preparedness in the field. For students who plan to enter a career in pathology, this program will strengthen their applications for advanced training opportunities and enhance their learning effectiveness in their training program. For students who plan on entering clinical practice, the clinical pathology track of this program will enhance their proficiency in applying clinical pathology principles within real-world practice settings. As such, the Graduate Certificate in Foundations in Veterinary Pathology represents a novel and accessible educational opportunity. Importantly, the Department of Pathology at UGA is uniquely positioned at the forefront of veterinary pathology instruction and is ready to become an innovator in this field by being the first academic department to offer such a comprehensive, online program.

3. Student Demand

a. Provide documentation of evidence of student demand for this program, including a student survey.

In the Fall of 2025, a survey of third-year veterinary students (n = 150) assessed interest in enrolling in a newly developed pathology elective, offering valuable insight into student demand for additional pathology instruction. Of those surveyed, 60 students (40%) indicated they were “definitely” interested in enrolling, while an additional 37 students (25%) reported being “probably” interested. This expressed interest is further supported by qualitative feedback from fourth-year students collected through course evaluations of the core clinical pathology rotation. Free-text comments included: “*I would love more pathology experience!*”; “*More time on this rotation, please!*”; and “*I wish there were more of this.*” These responses underscore a clear enthusiasm among students for expanded educational opportunities in pathology.

Veterinary graduates are also anticipated to enroll in the proposed certificate program, reflecting a continued need and interest in supplemental pathology education beyond the core curriculum. A survey of the University of Georgia College of Veterinary Medicine (UGA CVM) graduating classes of 2022, 2023, 2024, and 2025 highlighted both the strength of the current pathology instruction and areas where additional training is desired.

Graduates from the classes of 2022–2024 consistently identified clinical pathology as one of the top five areas in which they felt best prepared. Notably, free-text feedback from a Class of 2024 graduate included praise such as, “*Excellent pathology department!*”, demonstrating appreciation for the department’s teaching quality. Despite this, significant portions of students reported a lack of confidence in key diagnostic skills. Across the classes of 2022–2025:

- Approximately 20% of respondents indicated they felt only *somewhat prepared* to interpret clinical pathology test results.
- Around 50% reported feeling only *somewhat prepared* to interpret cytologic evaluations.

These findings support the need for a flexible, foundational program in veterinary pathology that reinforces core concepts while expanding students’ and graduates’ confidence and competence in clinical and diagnostic applications.

Courses within the proposed certificate program will be team-taught by faculty from the Department of Pathology who currently lead similar coursework within the anatomic and clinical pathology residency programs, with support from a teaching assistant who will be a veterinarian in the Diagnostic Laboratory Medicine Internship. This didactic instruction is a well-established and highly regarded component of graduate training, known for its academic rigor and practical relevance. Pathology resident exit surveys conducted between 2019 and 2025 consistently reflect the high quality and value of this coursework. Across this seven-year period, the average rating for the didactic component of the residency program was **4.56 out of 5**. Qualitative feedback from outgoing residents further underscores the strength of the program:

- “*I specifically chose to come to UGA over the other residency opportunities because of the didactic courses.*”

- *“The many classes in pathology put UGA residents on par with, if not ahead of, residents from other programs.”*
- *“Didactic courses were of the greatest value to me!”*
- *“Coming directly out of veterinary school, the didactic courses were excellent. They served as a nice transition into the residency.”*

This strong foundation in didactic instruction, paired with flexible, online delivery, positions the proposed certificate program as a first-of-its-kind opportunity to bring UGA’s high-caliber pathology education to a broader audience, including pre-residency trainees, trainees at other institutions, practicing veterinarians, and international professionals.

The proposed certificate program offers a novel and accessible educational opportunity that fills a critical gap in current veterinary pathology instruction. Existing options beyond the standard veterinary curriculum and continuing education conferences are largely limited to short, intensive courses typically ranging from several hours to a week, but these often fail to accommodate the demanding schedules of employed veterinarians, pathology residents, or full-time veterinary students. For example, the Davis-Thompson Foundation, a prominent provider of such programs, conducted 56 multi-day or week-long courses in 2024, attracting participants from 74 countries. In one example of their courses, they provide a week-long, synchronous course on general pathology, with average enrollment being 50-80 students from across the world. The proposed certificate program will offer similar material in the required course, but the semester-long structure will allow for a more comprehensive approach, and the asynchronous delivery will better accommodate schedules. Many of the existing offerings in the field are designed for individuals who have already completed residency training, making the content too advanced for those at the entry level or those exploring pathology as a career path. In contrast, this certificate program is designed to be asynchronous and fully online, providing flexible access to foundational pathology education for learners at all stages, including those new to the field or preparing for residency applications. Its structure is intentionally crafted to support busy professionals and students seeking a more accessible, yet rigorous, alternative to existing training models.

b. Provide evidence that demand will be sufficient to sustain reasonable enrollment.

The demand for additional pathology instruction has been noted above. While it is strong, it is recognized that veterinary pathology is a niche area. Thus, ten enrolled students per year will sustain the program, but it is estimated that enrollment will increase to 20-25 once the program is established. A larger student cohort is not required to sustain this program as it will rely on existing coursework as the model for the development of online coursework and the extensive expertise of the numerous pathology faculty within the department.

4. Program of Study

Provide a detailed program of study for the certificate program, including:

a. Specific course prefixes, numbers, and titles

To complete the certificate, students must take 10 credit hours of course work comprised of 3 courses. All students will take one required course and then choose between the anatomic pathology track or the clinical pathology track. A final course grade of “C” (2.0) or higher in all courses is mandatory for fulfillment of certificate requirements.

Required Course (4 hours)

VPAT 6002E, Cellular Pathology (4 hours)

This course provides a broad overview of the pathologic basis of animal disease processes at the cellular and molecular levels. Students learn to understand, integrate, and apply cellular and molecular pathogenic mechanisms as a foundation for anatomic and clinical veterinary pathology.

Students must choose one of the following tracks.

Anatomic Pathology Track (6 hours)

VPAT 6003E, Introduction to Veterinary Histopathology (3 hours)

This course explores the histopathologic changes of diseases of domestic veterinary species. Students learn to recognize the histology of normal and diseased animal tissues, keywords associated with histopathologic descriptions, and development of morphologic diagnoses. Students will practice interpretation of histopathology using digital microscopy.

VPAT 6004E, Advanced Veterinary Histopathology (3 hours)

This course explores the histopathologic changes of specific diseases (neoplastic and nonneoplastic) of domestic veterinary species. Students learn to recognize abnormal microscopic and ultrastructural changes, and to understand the pathogenic mechanisms leading to those changes. Students will practice interpretation of histopathology using digital microscopy.

Clinical Pathology Track (6 hours)

VPAT 6005E, Introduction to Veterinary Cytology (3 hours)

This course focuses on the microscopic evaluation of cells from animals to aid in diagnosis. Students are introduced to proper sample collection and processing and the foundational aspects of veterinary cytology. Students will practice interpretation of cytology specimens using digital microscopy.

VPAT 6006E, Introduction to Veterinary Hematology (3 hours)

This course explores blood physiology, disorders and diagnostics in veterinary species. Students learn to analyze blood samples, identify cell types and interpret results to support clinical decisions. Students will practice interpretation of hematology specimens using digital microscopy.

Total = 10 hours

b. Identify any new courses created for this program

All courses for the certificate program are new courses. While they are based on existing courses, the material has been altered to fit the course timeline and asynchronous model. These courses primarily target pre-residency level students, rather than residency-level students, so content will also be adjusted as needed.

5. Model Program and Accreditation

- a. Identify any model programs, accepted disciplinary standards, and accepted curricular practices against which the proposed program could be judged. Evaluate the extent to which the proposed curriculum is consistent with these external points of reference and provide a rationale for significant inconsistencies and differences that may exist.**
- b. If program accreditation is available, provide an analysis of the ability of the program to satisfy the curricular standards of such specialized accreditation.**

At the time of this proposal, there are no known veterinary pathology online graduate certificates in existence. The Davis-Thompson Foundation provides short courses in pathology topics, but asynchronous, formal coursework is not part of their typical offerings, and they are not associated with any college or university. There is currently no program accrediting body for this program.

6. Student Learning Outcomes

Describe the proposed learning outcomes for the certificate program.

The learning outcomes for the certificate program will vary slightly based on the path chosen by the student. They will be assessed through exams and assignments in the delineated courses.

Anatomic Pathology

At the conclusion of this certificate program, students will be able to:

- Define key terms and concepts in general pathology: VPAT 6002E
- Identify and explain pathogenic cellular and molecular mechanisms for various animal diseases: VPAT 6002E
- Identify and explain the appropriate laboratory test to diagnose a particular disease process: VPAT 6002E
- Critically read and review primary literature in general pathology research: VPAT 6002E
- Apply general pathology concepts to understand their clinical significance in veterinary medicine: VPAT 6002E
- Identify the tissue: VPAT 6003E
- Recognize significant microscopic changes and normal histology: VPAT 6003E

- Identify and use appropriate terminology for microscopic slide description: VPAT 6003E and VPAT 6004E
- Formulate appropriate morphologic diagnoses: VPAT 6003E and VPAT 6004E
- Identify key histologic features of infectious agents: VPAT 6004E
- Suggest appropriate special stains as needed: VPAT 6004E
- Determine pathogenic mechanisms for the observed changes (explain pathogenesis): VPAT 6004E
- Develop an appropriate and comprehensive list of differential diagnoses: VPAT 6004E
- Recommend appropriate ancillary diagnostic testing: VPAT 6004E
- List associated clinical pathologic findings or changes in other tissues: VPAT 6004E

Clinical Pathology

At the conclusion of this certificate program, students will be able to:

- Define key terms and concepts in general pathology: VPAT 6002E
- Identify and explain pathogenic cellular and molecular mechanisms for various animal diseases: VPAT 6002E
- Identify and explain the appropriate laboratory test to diagnose a particular disease process: VPAT 6002E
- Critically read and review primary literature in general pathology research VPAT 6002E
- Apply general pathology concepts to understand their clinical significance in veterinary medicine: VPAT 6002E
- Identify and describe normal and abnormal cytologic features of various tissues, fluids and body systems in veterinary species: VPAT 6005E
- Interpret cytologic findings to distinguish between inflammatory, neoplastic and other lesions: VPAT 6005E
- Assess cytologic specimen quality and recognize common artifacts or contaminants: VPAT 6005E
- Integrate cytologic data with clinical history and other test results to support diagnostic reasoning: VPAT 6005E
- Explain the diagnostic value and limitations of cytologic evaluation in veterinary medicine: VPAT 6005E
- Describe the production of hematopoietic cells: VPAT 6006E
- Formulate plans for the diagnosis of hematologic abnormalities: VPAT 6006E
- Diagnose hematologic diseases using a variety of laboratory tests: VPAT 6006E
- Recognize common hematology and coagulation analyzer errors: VPAT 6006E
- Recognize common microscopic findings of clinical significance VPAT 6005E and VPAT 6006E
- Explain pathogenesis and how these relate to microscopic findings or laboratory test results in common disorders or disease: VPAT 6005E and VPAT 6006E

7. Assessment and Admissions

Describe how the learning outcomes for the program will be assessed. Describe the process and criteria for how students will be admitted to and retained in the program.

Both direct and indirect measures will be used to assess learning outcomes. Direct measures will include formative assessments such as quizzes and summative assessments such as end-of-section exams. These evaluations will utilize multiple-choice questions, very-short-answer questions, and will also include practical slide interpretation exercises, which mimic the real-world work of a pathologist. These assessments will be based on a curriculum map to identify where each learning outcome is taught within the courses. Indirect measures will include tracking the three-year acceptance rate to specialized pathology training programs, if relevant, as well as exit surveys.

Admissions requirements are as follows:

- Veterinary degree (D.V.M. or equivalent) from an AVMA-listed veterinary school or current enrollment in an AVMA-accredited veterinary school, with completion of at least two semesters of D.V.M. coursework.
- Applicants must have an overall GPA of 3.0 or higher (D.V.M. coursework only) to apply.

Course oversight will be provided by certificate faculty. Program Coordinator staff support, provided by the department, will be responsible for maintaining training records, checking student eligibility and coordinating admissions. Exceptions to admissions requirements will be made on an individual basis by the Program Coordinator.

8. Library and Laboratory Resources

The proposal must include a review of existing library and laboratory resources (or other specialized resources) at the host location. If deficiencies exist, the proposal must include a plan, including timetable and budget, for alleviating the deficiencies.

This certificate program will be delivered entirely online. The College of Veterinary Medicine maintains its own robust digital microscopy platform, which supports concurrent access for up to 60 students and is already used for an existing UGA online degree program. This infrastructure will fully accommodate the proposed program, allowing students to engage with digital slide repositories and microscopy-based coursework at their convenience. At present, there are no known limitations or deficiencies in the system's functionality, ensuring a seamless user experience for all enrolled participants.

9. Budget

The budget must provide a realistic estimate of the costs of developing and implementing a quality program. Consequently, each program budget must contain detailed estimates—specified separately for authorized and cooperating units—concerning faculty and staff positions, library, laboratory, and other specialized facility resource requirements, travel and other significant operating expenses. If the support for the program is the result of an internal reallocation of resources, explicit details should be included in the proposal. The budget must reflect the start-up costs of the program, projected costs for completion of the first cycle of students, and additional costs associated with any future cycles of students.

For development of the program, a course development overload compensation of \$1,000 per class is proposed, to be split proportionally among the instructors creating new material for the course. A Teaching Assistant has been budgeted for. This Teaching Assistant is the Diagnostic

Laboratory Medicine Intern (post-D.V.M. position), which is a newly created position. Because this position is newly created and because the internship supervisors are also the coordinators of the online certificate program, the faculty are confident that this intern will have the time available to be a Teaching Assistant for these courses. The stipend in the budget represents the intern's stipend with a projected 2% increase each year for inflation. The TA will only receive this increase if general increases in salary are approved for graduate students. The TA will answer questions from students and increase student engagement. The TA stipend is included in all years of the budget, but the department has agreed to cover the TA stipend through FY2029. Faculty time for the courses is not included in the budget as it is a reallocation of departmental faculty resources (and the faculty are on 12-month appointments). Thus, there is not a need for summer salary or overload compensation. A departmental administrative assistant will be tasked with assisting on the administration of the program (\$2,000 per year). Veterinary pathology is a niche, but connected field, with many societies and clubs that can be targeted. Advertising will consist of contacting all North American Student Chapters of the American College of Veterinary Pathologists (free) and posting on the UGA Veterinary Pathology website (free), on the American College of Veterinary Pathology training website (free), and on the American Society for Veterinary Clinical Pathology website (\$250).

10. Program Costs Assessed to Students

Any costs beyond those normally associated with the program on campus must be spelled out and justified.

There are no additional costs beyond the requested e-rate, noted below.

11. E-Rate

If an e-rate will be charged, an approved e-rate form must be submitted through the Office of Online Learning.

An e-rate of \$275 will be charged.

Documentation of Approval and Notification

Proposal: Online Graduate Certificate in Foundations in Veterinary Pathology

College: College of Veterinary Medicine

Department: Pathology

Proposed Effective Term: Fall 2026

School/College:

- Head of the Department of Pathology, Dr. Jesse Hostetter, 10/17/2025
- College of Veterinary Medicine Associate Dean, Dr. Sharron Quisenberry, 11/12/2025
- College of Veterinary Medicine Dean, Dr. Lisa K. Nolan, 11/12/2025
- Graduate School Associate Dean, Dr. Anne Shaffer, 2/6/2026