

**Bergen Community College  
Veterinary Technology Program  
Course Syllabus**

<b>Course Title:</b>	Vertebrate Anatomy & Physiology I
<b>Course Number:</b>	VET-115
<b>Credits:</b>	3
<b>Lecture Hours:</b>	3
<b>Laboratory Hours:</b>	2
<b>Prerequisites:</b>	none

**Course Description:**

This course focuses on structure and function of vertebrate organ systems, with primary emphasis on mammals. After a brief overview of vertebrate development and evolutionary history and taxonomy, the major portion of the course reviews each system, across all principal groups. Study of basic cellular biology and of skeletal, muscle, and nervous systems, along with the special sense organs are included.

**Student Learning Objectives:**

Upon completion of this course, the student will be able to:

- Identify key features, origins and relationships between vertebrates
- Demonstrate the use all directional terms, as well as anatomical planes of reference
- List and describe the structure and function of the various components of a mammalian cell
- Recognize and describe four basic tissue types and their sub-types
- List the functions of bone and identify bone shapes, and parts of a long bone
- Compare bones of the small animal limb, equine and bovine limbs
- Identify major muscles of the feline and canine and origin and insertion point of these muscles
- Define and compare tendons and ligaments
- Explain the parts of a neuron and classify the three types of neurons
- Describe and identify the divisions of the nervous system and state how they relate to each other such as neurons; nerves; brain; and spinal cord
- Discuss and identify sensory organs such as the eye and ears

## Means of Assessment:

The student learning outcomes will be assessed using a variety of assessment instruments including written exams, demonstration of laboratory skills, quizzes, laboratory reports, written reports, oral presentations, projects, etc.

## Course Content:

- State the relationship between mammalian vertebrates and the taxonomic hierarchy
- Define and interpret key terms in vertebrate anatomy and physiology
- Demonstrate the use of directional terms and anatomic planes
- Discuss key concepts in cellular biology, including cell structure, function, and the cellular environment, cell transport systems, and reproduction
- Recognize the structure and function of the four basic tissue types of the body
- Identify and describe various parts of organ systems, including the skeletal, muscular, and nervous systems
- Compare anatomy differences of small and large animals
- Interpret the ways in which organs and body systems function and interact

## Course Materials:

Required:

- Colville & Bassert: *Clinical Anatomy & Physiology for Veterinary Technicians*, 3rd edition, St. Louis, Missouri, 2016; Elsevier
- Colville & Bassert: *Clinical Anatomy & Physiology Laboratory Manual for Veterinary Technicians*, St. Louis, Missouri, 2016; Elsevier

Supplemental (not required):

- Pasquini & Spurgeon: *Anatomy of Domestic Animals*, 10<sup>th</sup> edition, Pilot Point, Texas, 2003; Sudz Publishing
- Kaimmer & McCracken: *Dog Anatomy—A Coloring Atlas*, Jackson, Wyoming, 2003; Teton New Media

## Teaching Methodologies:

Lecture topics are covered by a variety of resources including power points with accompanying outlines, reading assignments, and selected online videos for conceptual demonstrations. Activities are designed to reinforce and enhance your understanding of

the topics. Laboratory is a combination of laboratory practical exercises and demonstrations. Models and comparative anatomy skeletons will be utilized, as well as dissection of cat cadavers, for teaching purposes. Additionally in lab, the viewing of videotapes and computerized web sites will be incorporated into the teaching methods.

## **Lecture Grading Criteria:**

There will be three written unit tests and a final comprehensive examination given at times selected and announced in advance by the instructor. Assignments will be given in advance and will encompass individual and/or group activities. Assignments are designed for you to utilize your resources. Unit exams will cover lecture material, handouts, and required readings. Exams are in any format including multiple choice, fill-in, and short answer style. Students are expected to take exams as scheduled. Failure to take a scheduled examination requires the student to contact the instructor within 72 hours of the scheduled exam dates AND provide a written bona fide excuse for the absence. Upon demonstration of a verifiable absence (i.e. medical, family emergency, unavoidable travel, emergency auto repair, police, or court documentation), the instructor will provide a make-up exam, which will be given in a format of the instructor's choice. The student may be required to come to campus for a make-up exam, which will be administered in the testing center on a date specified by the instructor. Failure to contact the instructor within this given time frame will result in a grade of 0 for that exam. Exams are timed—they will start promptly at the scheduled time and will “time out” after the allocated time. If the student is late for logging on to the exam, the student will be allowed to take the exam, however, no additional time will be allotted for completion of the examination.

Unit exams and the final exam is “closed” book, meaning you should not utilize any resources. When you open an exam, you must complete it in one sitting within the specified times. DO NOT minimize your screen, open any other browsers, or leave the exam idle for an extended period of time. If this occurs, an error message will come up and the exam will automatically submit and grade the work that was recorded at that time. You may take the exam in the convenience of your home. However, if your internet access is unreliable, you may opt to come to campus and utilize a computer room. They are available in all main buildings on campus.

Lecture grades will be averaged as follows for **50%** of the final course grade:

Lecture Quizzes & Assignments	25%
Unit Exams (3)	10%
Comprehensive Final Exam	15%

### **Lecture Quizzes:**

Lecture quizzes will be given during the semester with a due date:

- Online quizzes will be posted on Moodle with opening and closing dates. All quizzes will open at 8:00am and close at 8:00pm on the designated dates. You may work on these quizzes as often as you like prior to the due date (by clicking on “SAVE WITHOUT SUBMITTING” tab). When you have completed the quiz, you will click on “SUBMIT” tab, which will then be graded and posted in the Moodle Gradebook. **No online quizzes will be available after the closing date, so check the site frequently to avoid a zero.**

### **Laboratory Grading Criteria:**

50% of final course grade: details to be announced by the laboratory instructor

### **BCC Grading Policy:**

90-100 = A  
86-89 = B+  
80-85 = B  
76-79 = C+  
70-75 = C  
60-69 = D  
<60 = F

### **BCC Attendance Policy:**

All students are expected to attend punctually every scheduled meeting of each course in which they are registered. Attendance and lateness policies and sanctions are to be determined by the instructor for each section of each course.

### **VET 115 Lecture and Laboratory Attendance Policy:**

Attendance is mandatory. Missing more than two labs may put students at risk for falling behind in class material and learning techniques for that specific lab time. Labs cannot be made up unless discussed with the instructor.

### **Student Accommodations:**

Students who require accommodations by the Americans with Disabilities Act (ADA) can request support services from the Office of Specialized Services of Bergen Community College, Room L-116, Pitkin Education Center, 201-612-5269 or [oss@bergen.edu](mailto:oss@bergen.edu). Deadline for accommodations is posted on this site.

### **Rules and Regulations Governing Conduct**

Each student is expected to obtain a copy of the Bergen Community Student Handbook and is responsible for knowing the information included in the Handbook.

You may link directly to [Student Life and Judicial Affairs](#) to locate the Student Handbook. I have also provided a Bergen Link on the left hand side of the Moodle course: click on Student Life and Judicial Affairs; then click on Student Handbook to access. All students and faculty are governed by college rules and regulations. Please refer to the Student Handbook for information regarding codes of conduct beginning on page 40.

### Academic Integrity

Bergen Community College is committed to academic integrity. **All assignments, quizzes, and exams are to be completed individually, unless otherwise instructed.** Online quizzes are designed to use your resource materials. Unit exams are designed to be “closed book” exams and will be timed for 1 hour. Please refer to the current Student Handbook for details related to academic integrity/discipline, beginning on page 42.

### Other Student Support Services:

Distance Learning Office	Room C-334	201-612-5581 psimms@bergen.edu
Smarthinking Tutorial Service	On-line	<a href="http://www.bergen.edu/library/learning/tutor/smart/index.asp">www.bergen.edu/library/learning/tutor/smart/index.asp</a>
Student Support Center	1 <sup>st</sup> floor (near Public Safety)	201-447-7109 option #3
Moodle Help Desk		1-877-612-5381
Tutoring Center	Room L-125	201-447-7908
Writing Center	Room L-125	201-447-7908
Office of Specialized Services	Room L-115	201-612-5269 ossinfo@bergen.edu
Sidney Silverman Library	Room L-226	201-447-7436 (Reference Desk) 201-447-7970 (Service Desk)
Student Support Services— Academic Advising	A-118	201-612-5480 aacenter@bergen.edu
International Student Center	C-102	201-689-7601

Center for Health, Wellness & Personal Counseling	HS-100	201-447-9257
Veterans Center	L-113	201-447-7997
Office of Financial Aid	1 <sup>st</sup> floor	201-447-7148 financialaid@bergen.edu
Office of Public Safety	L-154	201-447-9200 publicsafety@bergen.edu
B.C.C. Bookstore	1 <sup>st</sup> floor	201-445-7174 bergen@bkstr.com