

VTHT 2331
AUSTIN COMMUNITY COLLEGE
Semester: Summer 2022

PROGRAM: **Veterinary Technology**

COURSE NUMBER: **VTHT 2331 – Clinical Pathology II**

COURSE TIME/LOCATION:

FACULTY NAME	LOCATION/OFFICE	PHONE	EMAIL
Kerry L. Coombs, D.V.M.	EGN 2111	512-223-9428	kerry.coombs@austincc.edu
Edna Noya, L.V.T.	EGN 2109	512-223-XXXX	Amanda.schoolcraft@austincc.edu

Website: www.austincc.edu/health/vtht

Arranging conferences/appointments: Appointment is recommended due to summer schedule.

COURSE DESCRIPTION: In-depth study of urinalysis and cytology. A survey of microbiological techniques will be made. Emphasis will be on laboratory procedures.

COURSE PREREQUISITES: VTHT 2321 Clinical Pathology I

COURSE RATIONALE: This is an advanced Clinical Pathology class that will reinforce what was taught in Clinical Pathology I and add microbiological skills and knowledge. This course will prepare students to function in the Clinical Pathology lab, in the veterinary hospital.

COURSE OBJECTIVES: Upon completion of the course the student will be able to:

1. Perform urinalysis:
 - determine physical properties (e.g., color, clarity, specific gravity)
 - test chemical properties
 - examine and identify sediment
2. Perform CBC:
 - hemoglobin
 - packed cell volume
 - total protein
 - white cell count
 - red cell count
3. Perform microscopic exam of blood film:
 - prepare film and stain using a variety of techniques
 - perform leukocyte differential – normal and abnormal
 - evaluate erythrocyte morphology – normal and abnormal

- estimate platelet numbers
 - calculate absolute values
 - correct white blood cell counts for nucleated cells
4. Perform blood typing and cross-matching
 5. Perform coagulation tests
 6. Perform microbiologic procedures/evaluations:
 - collect representative samples
 - culture bacteria and perform sensitivity tests
 - identify common animal pathogens using commercially available media and reagents
 7. Perform cytologic evaluation:
 - collect, prepare, and evaluate ear cytology
 - collect, prepare, and evaluate canine vaginal smears
 - collect, prepare, and evaluate other cytologic samples (such as mass and effusion samples)
 8. Perform Immunologic Exam for viral and other pathogens

PROGRAM STUDENT LEARNING OUTCOMES:

Upon completion of the **Associate of Applied Science Degree in Veterinary Technology**, the student will be able to:

1. Calculate, dispense and administer medication in the correct amount and in the prescribed form to maximize therapeutic benefits and minimize adverse effects. The student will be able to differentiate between normal and abnormal responses to medications and communicate necessary information to the client. The student will be able to perform inventory control procedures proficiently.
2. Safely obtain subjective and objective data that will allow accurate evaluation of the patient. The student will be able to: 1) implement techniques to promote wellness, achieve maximum health benefits, and reduce injury and stress to the patient; and, 2) recognize normal from abnormal behavior patterns.
3. Understand and explain appropriate and inappropriate dietary components for various life stages and therapeutic regimens (e.g., therapeutic foods) in order to promote optimal health, enhance recovery and manage chronic disease conditions. The student will also explain nutritional recommendations to clients and reinforce owner compliance.
4. Recognize a patient's dental health status and perform techniques, as prescribed by a veterinarian, appropriate to the species and its condition in order to promote and maintain dental health.
5. Work with the veterinarian to: 1) Assess patient's risk to determine appropriate anesthetic and pain management protocols; 2) Choose and utilize appropriate techniques and equipment to monitor patient's status; 3) Recognize and respond to equipment malfunctions to provide maximum benefit and ensure safety of patient and

- staff; 4) use medical records to assure patient and scheduled procedures are correct; 5) Obtain the patient's vital signs, physical parameters to ensure pre-surgical tests and patient assessment are reported to the veterinarian.
6. Position patients correctly for maximum benefit for the surgeon and the patient; utilize appropriate aseptic techniques for patient and personnel; and, administer appropriate post-operative care to the patient.
 7. Select, wrap and sterilize appropriate instruments and supplies and prepare and maintain the surgical environment to ensure maximum safety and benefit to the patient.
 8. Prepare, handle and submit appropriate samples for diagnostic analysis; and be able to: 1) recognize accurate vs. erroneous results; 2) determine appropriate methods and carry out analytical procedures to provide accurate diagnostic information; and, 3) work with the veterinarian to determine if laboratory tests will be needed.
 9. Accurately 1) prepare the imaging site and equipment; 2) position patients for the appropriate study; 3) properly use radiographic and darkroom equipment positioning, measuring, and using appropriate radiographic technique to produce a diagnostic image; 4) determine if image is diagnostic, and if not, be able to offer options to correct image to create a diagnostic radiograph to minimize repeat exposures; and, 5) exercise professional judgment to minimize risks to patient and personnel.
 10. Describe the basic principles of animal research and understand the utilization of laboratory animals in animal research. The student will also have a working knowledge of federal, state, and local animal welfare regulations.

SCANS Competencies

In 1990, the U.S. Department of Labor established the Secretary's Commission on Achieving Necessary Skills (SCANS) to examine the demands of the workplace and whether our nation's students are capable of meeting those demands. The Commission determined that today's jobs generally require competencies in the following areas:

Resources: Identifies, organizes, plans and allocates resources

Interpersonal: Works with others

Information: Acquires and uses information

Systems: Understands complex interrelationships

Technology: Works with a variety of technologies

The Texas Higher Education Coordinating Board requires that all degree plans in institutions of higher education incorporate these competencies and identify to the student how these competencies are achieved in course objectives.

VTHT 2331 COMPETENCE	EXAMPLE OF LEVEL
Resources	Identifies resources used in course and allocates time for studying.
Interpersonal	Shares experiences and knowledge with classmates, works as a member of a team for any assigned activities.

Information	Identifies materials and cells used for diagnostic purposes. Identifies appropriate diagnostic samples.
Systems	Identifies methods to correctly identify parasites, bacteria or cells
Technology	Discusses lifecycles of parasites and possible growth patterns of bacteria. Can recommend drugs to control.
Basic Skills	Reads assigned pages.
Thinking Skills	Identifies and prepares for tests, quizzes and research activities.
Personal Qualities	Works as a team member for any assigned activities. Asserts self and networks with classmates and virtual lab to obtain information on current topics.

TEXTBOOK:

Laboratory Procedures for Veterinary Technicians, 7th edition, Margi Sirois, 2020 by Mosby,
ISBN-13: 978-0-323-595384

INSTRUCTIONAL METHODOLOGY: Classroom Lecture and Laboratory

GRADING SYSTEM: The Veterinary Technology courses use the following scale for determination of final grades:

A = 93 - 100%	D = 60 - 74
B = 83 - 92%	F = below 60
C = 75 - 82%	

A grade of 75% or above is required for both lecture and lab to pass with a C, any subject area. Grade of D is allowed for ACC records, but will disqualify student for progression through the program. Due to the nature of the program, you would not be able to take the class again until the following academic year – if there is space available.

This class has essential skills associated with it. These are set by our accrediting body, the CVTEA. It is the student's responsibility to ensure that these skills are successfully completed in the presence of program faculty and documented in Salthouse by the end of the semester.

Before a student may progress to a subsequent semester, the student must demonstrate proficiency in the essential skill(s) required of each class. Duplicate essential skills requirements may be present in multiple classes or semesters, and students may be required to demonstrate proficiency in essential skills multiple times. At the sole discretion of the instructor, exceptions to the above requirements may be granted in the event that insufficient time exists to adequately teach one or more essential skill. If a student fails to complete any assigned skill for the semester, the case will be reviewed by the instructor(s) and program chair to determine student progression.

METHOD OF EVALUATION: (Approximate values)

40 % on exams, lecture assignments, quizzes and presentations

60 % on Laboratory work including exams, quizzes, assignments and attendance

Quizzes: Quizzes may be made up if missed due to an excused absence and arrangements to take the quiz are made immediately. Make up quizzes must be made up within 1 week of missed quiz.

Late Assignment Policy: Assignments are expected to be turned in on time. If for some reason you are not able to get it turned in on time you can submit the next business day for a 50% deduction, an additional 10% deduction for each day thereafter. The assignment can be submitted in person, faxed, or scanned and e-mailed to the instructor. If a student knows they will miss a class they can submit their assignment electronically for full credit the day it is due. For any other circumstances the student needs to contact the instructor.

Exam Policy: You are expected to be present for all exams. If you miss an exam, arrangements must be made up within a week of when it was given. Make up exams can be an essay type of exam. If arrangements are not made by that time, you will receive a "0" for that exam. To take an exam at a time other than the class time in which it is given, the absence must be "excused" by the instructor. "Excused" absences include illness, death, and other unavoidable circumstances. Written evidence may be required.

COURSE POLICIES:

Attendance/Class Participation

Attendance is required for academic achievement. If a student misses more than 10% of the contact hours, the progressive discipline will be implemented. If a student misses more than 25% of the contact hours the student would be dropped from the class. Laboratories are critical, if a lab is missed, it is the student's responsibility to schedule with the instructor any possible make up of skills or material missed. Arrangements must be scheduled within 1 week of the missed lab. Refer to the Student Handbook for specific details on attendance.

Withdrawal Policy

It is the responsibility of each student to ensure that his or her name is removed from the roll should he or she decides to withdraw from the class. The instructor does, however, reserve the right to drop a student should he or she feel it is necessary. If a student decides to withdraw, he or she should also verify that the withdrawal is submitted before the Final Withdrawal Date. The student is also strongly encouraged to retain their copy of the withdrawal form for their records.

State law permits students to withdraw from no more than six courses during their entire undergraduate career at Texas public colleges or universities. With certain exceptions, all course withdrawals automatically count towards this limit. Details regarding this policy can be found in the ACC college catalog.

Incompletes

An incomplete (grade of "I") will only be given for extenuating circumstances. What constitutes "extenuating circumstances" is left to the instructor's discretion. If a grade of I is given, the remaining course work must be completed by a date set by the student and professor. This date may not be later than two weeks prior to the end of the following semester. A grade of I also requires completion and submission of the [Incomplete Grade form](#), to be signed by the faculty member (and student if possible) and submitted to the department chair.

Students may request an Incomplete from their faculty member if they believe circumstances warrant. The faculty member will determine whether the Incomplete is appropriate to award or not. The following processes must be followed when awarding a student an "I" grade.

1. Prior to the end of the semester in which the "I" is to be awarded, the student must meet with the instructor to determine the assignments and exams that must be completed prior to the deadline date. This meeting can occur virtually or in person. The instructor should complete the Report of Incomplete Grade form.
2. The faculty member will complete the form, including all requirements to complete the course and the due date, sign (by typing in name) and then email it to the student. The student will then complete his/her section, sign (by typing in name), and return the completed form to the faculty member to complete the agreement. A copy of the fully completed form can then be emailed by the faculty member to the student and the department chair for each grade of Incomplete that the faculty member submits at the end of the semester.
3. The student must complete all remaining work by the date specified on the form above. This date is determined by the instructor in collaboration with the student, but it may not be later than the final withdrawal deadline in the subsequent long semester.
4. Students will retain access to the course Blackboard page through the subsequent semester in order to submit work and complete the course. Students will be able to log on to Blackboard and have access to the course section materials, assignments, and grades from the course and semester in which the Incomplete was awarded.
5. When the student completes the required work by the Incomplete deadline, the instructor will submit an electronic Grade Change Form to change the student's performance grade from an "I" to the earned grade of A, B, C, D, or F.

If an Incomplete is not resolved by the deadline, the grade automatically converts to an "F." Approval to carry an Incomplete for longer than the following semester or session deadline is not frequently granted.

Statement on Scholastic Dishonesty

Austin Community College values academic integrity in the educational process. Acts of academic dishonesty/misconduct undermine the learning process, present a disadvantage to students who earn credit honestly, and subvert the academic mission of the institution. The potential consequences of fraudulent credentials raise additional concerns for individuals and communities beyond campus who rely on institutions of higher learning to certify students' academic achievements, and expect to benefit from the claimed knowledge and skills of their graduates. Students must follow all instructions given by faculty or designated college representatives when taking examinations, placement assessments, tests, quizzes, and evaluations. Actions constituting scholastic dishonesty include, but are not limited to,

plagiarism, cheating, fabrication, collusion, falsifying documents, or the inappropriate use of the college's information technology resources. Further information is available at <https://www.austincc.edu/about-acc/academic-integrity-and-disciplinary-process>

The complaints and grades dispute process can also be found at the above site and is located in your Veterinary Technology Program handbook at <http://www.austincc.edu/health/vtth/handbook.php>

Student Rights and Responsibilities

Students at the college have the rights accorded by the U.S. Constitution to freedom of speech, peaceful assembly, petition, and association. These rights carry with them the responsibility to accord the same rights to others in the college community and not to interfere with or disrupt the educational process. Opportunity for students to examine and question pertinent data and assumptions of a given discipline, guided by the evidence of scholarly research, is appropriate in a learning environment. This concept is accompanied by an equally demanding concept of responsibility on the part of the student. As willing partners in learning, students must comply with college rules and procedures.

Senate Bill 212 and Title IX Reporting Requirements

Under Senate Bill 212 (SB 212), the faculty and all College employees are required to report any information concerning incidents of sexual harassment, sexual assault, dating violence, and stalking committed by or against an ACC student or employee. Federal Title IX law and College policy also require reporting incidents of sex- and gender-based discrimination and sexual misconduct. This means faculty and non-clinical counseling staff cannot keep confidential information about any such incidents that you share with them.

If you would like to talk with someone confidentiality, please contact the District Clinical Counseling Team who can connect you with a clinical counselor on any ACC campus: (512) 223-2616, or to schedule online: <https://www.austincc.edu/students/counseling> .

While students are not required to report, they are encouraged to contact the Compliance Office for resources and options: Charlene Buckley, District Title IX Officer, (512) 223-7964; compliance@austincc.edu .

If a student makes a report to a faculty member, the faculty member will contact the District Title IX Officer for follow-up.

Safety Statement

Health and safety are of paramount importance in classrooms, laboratories, and field activities. Students are expected to learn and comply with ACC environmental, health and safety procedures and agree to follow ACC safety policies. Emergency Procedures posters and Campus Safety Plans are posted in each classroom and should be reviewed at the beginning of each semester. All incidents (injuries/illness/fire/property damage/near miss) should be immediately reported to the course instructor. Additional information about safety procedures and how to

sign up to be notified in case of an emergency can be found at <http://www.austincc.edu/emergency>

Everyone is expected to conduct themselves professionally with respect and courtesy to all. Anyone who thoughtlessly or intentionally jeopardizes the health or safety of another individual may be immediately dismissed from the day's activity and will be referred to the Dean of Student Services for disciplinary action.

In the event of disruption of normal classroom activities due to an emergency situation or a continuing illness outbreak, the format for this course may be modified to enable completion of the course. In that event, students will be provided an addendum to the class syllabus that will supersede the original version.

Use of ACC email

All College e-mail communication to students will be sent solely to the student's ACCmail account, with the expectation that such communications will be read in a timely fashion. ACC will send important information and will notify you of any college related emergencies using this account. Students should only expect to receive email communication from their instructor using this account. Likewise, students should use their ACCmail account when communicating with instructors and staff. Instructions for activating an ACCmail account can be found at <http://www.austincc.edu/accmail/index.php>.

For help setting up your ACCeID, ACC Gmail, or ACC Blackboard, see a Learning Lab Technician at any ACC Learning Lab.

Testing Center Policy

Under certain circumstances, an instructor may have students take an examination in a testing center. Students using the Academic Testing Center must govern themselves according to the Student Guide for Use of ACC Testing Centers and should read the entire guide before going to take the exam. To request an exam, one must have:

- ACC Photo ID
- Course Abbreviation (e.g., ENGL)
- Course Number (e.g., 1301)
- Course Synonym (e.g., 10123)
- Course Section (e.g., 005)
- Instructor's Name

Do NOT bring cell phones to the Testing Center. Having your cell phone in the testing room, regardless of whether it is on or off, will revoke your testing privileges for the remainder of the semester. ACC Testing Center policies can be found at <http://www.austincc.edu/testctr/>

Student and Instructional Services

ACC strives to provide exemplary support to its students and offers a broad variety of opportunities and services. Information on these campus services and resources is available at

<http://www.austincc.edu/students>. A comprehensive array of student support services is available online at: <https://www.austincc.edu/coronavirus/remote-student-support>

Student Accessibility Services

Students with documented disabilities who need academic or other accommodations must request them through the office Student Accessibility Services (SAS). SAS offices are located at each major campus. Students are encouraged to request accommodations when they register for courses or at least three weeks before the start of the semester; otherwise, the provision of accommodations may be delayed. Students who have received approval for accommodations from SAS for this course must provide the instructor with the document titled “Notice of Approved Accommodations” from SAS before accommodations will be provided.

Accommodations will not be provided retroactively. Arrangements by the instructor for academic accommodations can only be made after he or she receives the “Notice of Approved Accommodations” from the student. Additional information about Student Accessibility Services is available at

<https://www.austincc.edu/offices/student-accessibility-services-and-assistive-technology>

Academic Support

ACC offers academic support services on all of its campuses. These services, which include online tutoring, academic coaching, and supplemental instruction, are free to enrolled ACC students. Tutors are available in a variety of subjects ranging from accounting to pharmacology. Students may receive these services on both a drop-in and referral basis.

An online tutor request can be made here:

<https://de.austincc.edu/bbsupport/online-tutoring-request/>

Concealed Handgun Policy

The Austin Community College District concealed handgun policy ensures compliance with Section 411.2031 of the Texas Government Code (also known as the [Campus Carry Law](#)), while maintaining ACC’s commitment to provide a safe environment for its students, faculty, staff, and visitors.

Beginning August 1, 2017, individuals who are licensed to carry (LTC) may do so on campus premises except in locations and at activities prohibited by state or federal law, or the college’s concealed handgun policy.

It is the responsibility of license holders to conceal their handguns at all times. Persons who see a handgun on campus are asked to contact the ACC Police Department by dialing 222 from a campus phone or 512-223-7999.

IMPORTANT: Clinical Pathology II laboratories are held in an area designated as an exclusion zone as defined by state law or the college’s concealed handgun policy. Concealed carry is prohibited in exclusion zones. Concealed weapons must be stored in a secure place as defined by college policy prior to entering the classroom, studio, or learning space.

Refer to the concealed handgun policy online at austincc.edu/campuscarry.

Illness

Any ACC student or employee with symptoms or exposure to the COVID-19 virus should inform their professor(s) or supervisor and complete the college's self reporting form:

https://cm.maxient.com/reportingform.php?AustinCC&layout_id=124

Personal Support

Resources to support students are available at every campus. To learn more, ask your professor or visit the campus Support Center. All resources and services are free and confidential. Some examples include, among others:

Food resources including community pantries and bank drives can be found here:

<https://www.centraltexasfoodbank.org/food-assistance/get-food-now>

- Assistance with childcare or utility bills is available at any campus Support Center:

<http://www.austincc.edu/students/support-center>.

- The Student Emergency Fund can help with unexpected expenses that may cause you to withdraw from one or more classes: <http://www.austincc.edu/SEF>.

- Help with budgeting for college and family life is available through the Student Money Management Office: <http://sites.austincc.edu/money/>.

A full listing of services for student parents is available at:

<https://www.austincc.edu/students/child-care>

- The CARES Act Student Aid will help eligible students pay expenses related to COVID-19: <https://www.austincc.edu/coronavirus/cares-act-student-aid>.

Mental health counseling services are available throughout the ACC Student Services District to address personal and or mental health concerns: <http://www.austincc.edu/students/counseling>

If you are struggling with a mental health or personal crisis, call one of the following numbers to connect with resources for help. However if you are afraid that you might hurt yourself or someone else, call 911 immediately.

Free Crisis Hotline Numbers:

- Austin / Travis County 24 hour Crisis & Suicide hotline: **512-472-HELP (4357)**
- The Williamson County 24 hour Crisis hotline: **1-800-841-1255**
- Bastrop County Family Crisis Center hotline: **1-888-311-7755**
- Hays County 24 Hour Crisis Hotline: **1-877-466-0660**
- National Suicide Prevention Lifeline: **1-800-273-TALK (8255)**

Course Outline / Calendar

****NOTE – Because this is a Summer Term, there are only 10 weeks in the Term.**

Date	Topic Area/Objective	Reading/Other Assignments	ACTIVITIES
Week 1	Microbiology	Chp. 37,38	Quiz (review quiz)
Week 2	Microbiology	Chp. 39, 40	Quiz 1 & 2
Week 3	Microbiology	Chp. 41	Exam #1 -
Week 4	Microbiology	Chp. 42, 43, 44	Quiz 3, Bacteria quiz,
Week 5	Microbiology	Bacterial Types & Diseases	Bacterial reports Quiz 4
Week 6	Immunology	Chp.19 – 21	
Week 7	Immunology	Chp. 22 - 24	Quiz 5 & Exam #2 –
Week 8	Immunology / cytology Pathology	51- 54	
Week 9	Immunology / cytology Pathology	Catch up / Review	Immun quiz & Cytology quiz
Week 10	Lecture Exam #3 / Final		Exam #3 (final)

See Laboratory Schedule for specifics of laboratory!

VTHT 2331 – Clinical Pathology II

By signing below, I declare that I have received a copy of the course syllabus for VTHT 2331, Clinical Pathology II and have had a chance to review it and understand the contents of the syllabus. This is for the semester inclusive of the date below.

Student Signature

Date

Printed Student Name