

# EATM M118: VETERINARY CLINICAL PATHOLOGY

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**Originator**

Ishapiro

**College**

Moorpark College

**Attach Support Documentation (as needed)**

RVTProgramJustification.pdf

RVTProgramCourseRequirements.docx

**Discipline (CB01A)**

EATM - Exotic Animal Training Mgmt

**Course Number (CB01B)**

M118

**Course Title (CB02)**

Veterinary Clinical Pathology

**Banner/Short Title**

Veterinary Clinical Pathology

**Credit Type**

Credit

**Honors**

No

**Start Term**

Fall 2020

**Catalog Course Description**

Introduces students to modern and practical methods in veterinary clinical laboratory analysis. Emphasizes the examination of blood, urine, feces and skin scrapings of companion, livestock, and exotic animals.

**Taxonomy of Programs (TOP) Code (CB03)**

0102.10 - \*Veterinary Technician (Licensed)

**Course Credit Status (CB04)**

D (Credit - Degree Applicable)

**Course Transfer Status (CB05) (select one only)**

B (Transferable to CSU only)

**Course Basic Skills Status (CB08)**

N - The Course is Not a Basic Skills Course

**SAM Priority Code (CB09)**

C - Clearly Occupational

**Course Cooperative Work Experience Education Status (CB10)**

N - Is Not Part of a Cooperative Work Experience Education Program

**Course Classification Status (CB11)**

Y - Credit Course

**Educational Assistance Class Instruction (Approved Special Class) (CB13)**

N - The Course is Not an Approved Special Class

**Course Prior to Transfer Level (CB21)**

Y - Not Applicable

**Course Noncredit Category (CB22)**

Y - Credit Course

**Funding Agency Category (CB23)**

B - Partially Developed Using Economic Development Funds

**Course Program Status (CB24)**

1 - Program Applicable

**General Education Status (CB25)**

Y - Not Applicable

**Support Course Status (CB26)**

N - Course is not a support course

**Field trips**

Will not be required

**Grading method**

Letter Graded

**Alternate grading methods**

Credit by exam, license, etc.

**Does this course require an instructional materials fee?**

No

**Repeatable for Credit**

No

**Is this course part of a family?**

No

**Units and Hours**

**Carnegie Unit Override**

No

**In-Class**

**Lecture**

**Minimum Contact/In-Class Lecture Hours**

35

**Maximum Contact/In-Class Lecture Hours**

35

**Activity**

**Laboratory**

**Total in-Class**

**Total in-Class**

**Total Minimum Contact/In-Class Hours**

35

**Total Maximum Contact/In-Class Hours**

35

**Outside-of-Class**

**Internship/Cooperative Work Experience**

**Paid**

**Unpaid**

## **Total Outside-of-Class**

**Total Outside-of-Class**

**Minimum Outside-of-Class Hours**

70

**Maximum Outside-of-Class Hours**

70

## **Total Student Learning**

**Total Student Learning**

**Total Minimum Student Learning Hours**

105

**Total Maximum Student Learning Hours**

105

**Minimum Units (CB07)**

2

**Maximum Units (CB06)**

2

**Prerequisites**

EATM 120 and 120L, EATM 110 and 110L

**Corequisites**

EATM M118L Veterinary Clinical Pathology Laboratory

**Limitations on Enrollment**

Criminal background clearance

Drug and alcohol clearance

Fingerprint clearance

Current negative TB test or chest x-ray

Others (specify)

No visible tattoos or visible body piercings except single studs in earlobes

**Other Limitations on Enrollment**

1. Admission to the Moorpark College Registered Veterinary Technology Program
2. Current tetanus vaccination

## **Entrance Skills**

**Entrance Skills**

EATM M110

1. discuss the etiology, symptoms, treatment, veterinary care, and preventive measures for common infectious, zoonotic and systemic diseases of small animals.
2. explain the vaccination concepts related to small animals.
3. identify the components of a wellness program for dogs and cats and explain the importance of preventative care.
4. describe the prevention of infectious disease transmission in the veterinary setting.
5. discuss the spread of parasites between animals and humans.

EATM M110L

1. perform hands-on skills to provide competent and compassionate care such as otic, ophthalmic, dermal, gastrointestinal, and urinary procedures to small companion animals.
2. utilize and maintain various instruments, equipment and supplies used in the assessment and treatment of small animals.
3. use proper technique to position small animals for auscultation, palpation, and other assessments of body systems.
4. demonstrate standard precautions to prevent the transmission of infectious diseases.
5. demonstrate proper technique in administering vaccinations to small companion animals.
6. demonstrate safe technique in performing injections and venipunctures.

EATM M120

1. identify and describe the basic anatomical structures of mammals.
2. identify and utilize basic nomenclature related to anatomy and physiology.

3. explain the relationship between the various anatomical and physiological systems found in normal mammal, avian, and reptile species.
4. discuss in terms of structure and function, the unique anatomical and physiological adaptations of certain groups of mammal, avian, and reptile species.
5. distinguish between the major components of the nervous system and describe the structure and function of the neuron and process of nerve transmission.
6. distinguish between the major components of the reproductive system and describe the structure and function of the ovary.
7. compare the effects of hormones on follicle development.
8. describe the structure and function of the nephron and the effects of hormones on urine formation.
9. distinguish between the different organs that contribute to digestion.
10. compare and contrast the digestive process for major macro-molecules.

EATM M120L

1. distinguish the parts of the brain and major nerves and describe their functions.
2. utilize microscopes and photographs to identify and describe the location and function of epithelial, muscular, nervous, and connective tissues.
3. distinguish the three layers of the skin, the associated structures found within the skin layers, and the structures derived from the skin.
4. differentiate individual bones of the axial and appendicular skeleton using articulated and disarticulated skeletons from common domesticated species.
5. distinguish the surface features of bones of the axial and appendicular skeleton.
6. identify the major joints using articulated and disarticulated skeletons.
7. distinguish the major skeletal muscles and describe their actions.
8. differentiate and describe the functions of the major organs of the respiratory, cardiovascular, digestive, and genitourinary systems.
9. differentiate the major internal organs on radiographs.
10. identify the individual bones and major joints on radiographs.
11. identify on various radiographs anatomical differences between species, gender and age.
12. identify histological differences of the four basic animal tissues and relate normal from abnormal cells.

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## Requisite Justification

### Requisite Type

Prerequisite

### Requisite

EATM M110, EATM M110, EATM M120, EATM M120L`

### Requisite Description

Course in a sequence

### Level of Scrutiny/Justification

Required by statute or regulation

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### Requisite Type

Corequisite

### Requisite

EATM M118L

### Requisite Description

Course in a sequence

### Level of Scrutiny/Justification

Closely related lecture/laboratory course

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### Requisite Type

Enrollment Limitation

### Requisite

1. Criminal background clearance; 2. Current negative TB test or chest x-ray; 3. Drug and alcohol clearance; 4. Fingerprint clearance; 5. No visible tattoos or visible body piercings except single studs in earlobes. Other: 1. Admission to the Moorpark College Registered Veterinary Program; 2. Current tetanus vaccination

**Requisite Description**

Credit program requisite (credit only)

**Level of Scrutiny/Justification**

Required by statute or regulation

**Student Learning Outcomes (CSLOs)****Upon satisfactory completion of the course, students will be able to:**

- |   |   |
|---|---|
| 1 | distinguish between the major types of internal parasites of small, large, and exotic animals.                  |
| 2 | interpret hematological findings and describe how they relate to animal health and disease.                     |
| 3 | analyze and interpret clinical pathology findings in animals and explain how they related to disease processes. |

**Course Objectives****Upon satisfactory completion of the course, students will be able to:**

- |   |  |
|---|--|
| 1 | recognize the significance of clinical pathology data and how it is utilized in evaluating animal health.            |
| 2 | recognize the tasks commonly performed by the veterinary technician in a veterinary, clinical, pathology laboratory. |
| 3 | distinguish between the major types of external and internal parasites of small, large, and exotic animals.          |
| 4 | apply knowledge of common parasite life cycles to explain how major parasites are controlled.                        |
| 5 | distinguish between the major types of blood cells in common domestic species.                                       |
| 6 | interpret hematological findings and describe how they relate to animal health and disease.                          |
| 7 | distinguish between the major cell types that are found in urine specimens.  |
| 8 | interpret urinalysis findings and describe how they relate to animal health and disease.                             |
| 9 | interpret serum biochemical findings and describe how they relate to animal health and disease.                      |

**Course Content****Lecture/Course Content**

- (2.9%) Introduction to Clinical Pathology
- (2.9%) Role of the Veterinary Technician in a Clinical Laboratory
- (7%) External Parasites: Fleas and Lice
- (7%) External Parasites: Mites and Ticks
- (17%) Internal Parasites: Terminology, Life Cycles, Classes
- (5.7%) Hematology: Introduction
- (5.7%) Blood Cell Identification
- (2.9%) Staining of Slides
- (5.7%) Complete Blood Count (CBC)
- (2.9%) Blood Parasites
- (5.7%) Clotting Disorders, Anemia, Changes in Blood Panel with Disease
- (5.7%) Review of Hematology Cases
- (8.6%) Introduction to urinalysis
- (8.6%) Analyzing urine sediment
- (5.7%) Serum biochemistry
- (6%) Reading a laboratory report

**Laboratory or Activity Content**

n/a (this is lecture only)

**Methods of Evaluation****Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):**

- Problem solving exercises
- Written expression

**Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):**

- Essay exams
- Group projects
- Individual projects
- Journals
- Objective exams
- Oral presentations
- Quizzes
- Reports/papers
- Research papers
- Treatment plans

## **Instructional Methodology**

**Specify the methods of instruction that may be employed in this course**

- Computer-aided presentations
- Collaborative group work
- Clinical demonstrations
- Class activities
- Class discussions
- Case studies
- Demonstrations
- Group discussions
- Guest speakers
- Instructor-guided interpretation and analysis
- Instructor-guided use of technology
- Internet research
- Lecture

**Describe specific examples of the methods the instructor will use:**

PowerPoint presentations with slides of common pathologies and parasites.

## **Representative Course Assignments**

### **Writing Assignments**

Write an essay on the major types of external and internal parasites of small and large animals.

Write a short paper on the common parasite life cycles and explain how to control major parasites.

### **Critical Thinking Assignments**

Research, analyze, and describe the hematological findings in the hematology case scenario of a clinically ill animal.

Research, analyze, and describe the necropsy findings of a given animal.

Interpret urinalysis findings for a given scenario and describe how they relate to animal health and disease.

### **Reading Assignments**

Read chapters in textbook that corresponds with lecture topics on clinical pathology in animals.

Read supplemental information from case studies and journal articles on clinical pathology of animals that are posted to the online learning management system.

## **Outside Assignments**

### **Representative Outside Assignments**

Utilize the online learning management system to view gallery of course photomicrographs in preparation for class discussions.

Work on the topic pertaining to clinical pathology in animals that is selected for the group project.

## **Articulation**

### **Comparable Courses within the VCCCD**

AG V75 - Veterinary Microbiology, Parasitology, and Laboratory Procedures

**Equivalent Courses at other CCCs**

College	Course ID	Course Title	Units
L.A. Pierce College	ANML SC 430	Veterinary Clinical Pathology	2

**District General Education****A. Natural Sciences****B. Social and Behavioral Sciences****C. Humanities****D. Language and Rationality****E. Health and Physical Education/Kinesiology****F. Ethnic Studies/Gender Studies**

Course is CSU transferable

Yes

CSU Baccalaureate List effective term:

FALL 2020

**CSU GE-Breadth****Area A: English Language Communication and Critical Thinking****Area B: Scientific Inquiry and Quantitative Reasoning****Area C: Arts and Humanities****Area D: Social Sciences****Area E: Lifelong Learning and Self-Development****CSU Graduation Requirement in U.S. History, Constitution and American Ideals:****IGETC****Area 1: English Communication****Area 2A: Mathematical Concepts & Quantitative Reasoning****Area 3: Arts and Humanities****Area 4: Social and Behavioral Sciences****Area 5: Physical and Biological Sciences****Area 6: Languages Other than English (LOTE)****Textbooks and Lab Manuals****Description**

Shapiro, Leland. *Pathology and Parasitology for Veterinary Technicians*. 2nd ed., Cengage, 2009.

**Description**

Hendrix, Charles M., and Ed Robinson. *Diagnostic Veterinary Parasitology*. 5th ed., Mosby, 2016.

## Library Resources

### Assignments requiring library resources

Research paper on veterinary clinical pathology.

### Sufficient Library Resources exist

Yes

### Example of Assignments Requiring Library Resources

Utilize Library's print and online resources to research such topics as the hematologic findings in animal health and disease.

### Primary Minimum Qualification

ANIMAL TRAINING & MANAGEMENT

### Additional Minimum Qualifications

#### Minimum Qualifications

Biological Sciences

### Additional local certifications required

RVT or DVM or PhD in related field

## Review and Approval Dates

### Department Chair

12/06/2019

### Dean

12/09/2019

### Technical Review

01/31/2020

### Curriculum Committee

02/04/2020

### DTRW-I

02/13/2020

### Curriculum Committee

MM/DD/YYYY

### Board

03/10/2020

### CCCCO

MM/DD/YYYY

### DOE/accreditation approval date

MM/DD/YYYY