

EATM M124: LABORATORY ANIMAL CARE

Originator

Ishapiro

Co-Contributor(s)**Name(s)**

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College

Moorpark College

Attach Support Documentation (as needed)

RVTProgramCourseRequirements.docx

Discipline (CB01A)

EATM - Exotic Animal Training Mgmt

Course Number (CB01B)

M124

Course Title (CB02)

Laboratory Animal Care

Banner/Short Title

Laboratory Animal Care

Credit Type

Credit

Honors

No

Start Term

Fall 2020

Catalog Course Description

Introduces laboratory animal care and husbandry. Includes the care and safe restraint techniques for primates, rabbits, guinea pigs, rodents and other small laboratory animals. Addresses laboratory regulations, the role of the veterinary technician in biomedical research, and career opportunities in animal laboratory settings.

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

May be required

Faculty notes on field trips; include possible destinations or other pertinent information

Students may be required to visit local university and/or research laboratories that utilize lab animals in their respective facilities.

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 M114 and EATM M114L

Corequisites

EATM M124L

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 M114

1. discuss the legal, ethical and medical importance of medical records.
2. describe the use and function of the POMR (Problem-oriented medical record) system of medical record keeping.
3. identify pertinent information needed to obtain an accurate patient history on the animal.
4. describe the various parts of the physical examination that are necessary to determine a diagnosis.
5. describe the mathematical functions used to calculate medication dosages.
6. discuss the type of medications and route of administration that are safe for various disorders in animals.
7. explain the types of fluid administered to animals for fluid resuscitation.
8. describe the set-up of fluid delivery equipment in terms of threading the tubing and entering the volume and rate for infusion.
9. describe the various types of anesthesia, their administration, uses and effects.
10. identify the various pieces of anesthetic monitoring equipment and their function.
11. describe normal and abnormal vital signs and reflexes during local and general anesthesia.
12. explain the mechanism of wound healing and the factors that delay or promote wound healing.
13. recognize commonly used suture materials, patterns, and indications for use.
14. describe the concepts of sterility for surgical procedures and evaluate the role of the surgical veterinary technician in maintenance of sterility.
15. discuss signs of dental disease in small animals to differentiate between normal and abnormal dental conditions that require dental procedures.
16. Identify dental instrumentation by name, function and application.

EATM M114L

1. handle safely and restrain small animals for various veterinary procedures.
2. obtain an accurate patient history from the owner.
3. perform a physical examination and interpret results on companion animals.
4. construct and enter data into medical records, both written and digital.
5. perform basic maneuvers in a veterinary software package.
6. correctly administer medication via parenteral routes.
7. correctly perform venipuncture for blood collection and intravenous (IV) administration.
8. accurately calculate drug dosages.
9. perform endotracheal intubation on a dog and cat.
10. perform a cystocentesis on a male and female dog and cat.
11. insert an intravenous (IV) catheter; calculate fluid rates and administer fluids.
12. operate safely and maintain anesthetic equipment.
13. operate and maintain anesthetic monitoring equipment.
14. perform a necropsy on a small animal and identify normal and abnormal anatomy.
15. place a cast on a small animal.
16. demonstrate aseptic technique and correctly execute sterile transfer methods.

Requisite Justification

Requisite Type

Prerequisite

Requisite

EATM M114, EATM M114L

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Required by statute or regulation

Requisite Type

Corequisite

Requisite

EATM M124L

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Closely related lecture/laboratory course

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 | discuss proper husbandry care for the common laboratory animal species of mice, rats and rabbits. |
| 2 | discuss humane and safe animal restraint of mice, rats and rabbits. |

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

- | | |
|---|---|
| 1 | describe proper husbandry care for the common laboratory animal species of mice, rats, rabbits, guinea pigs, and primates. |
| 2 | describe common restraint techniques for medical procedures by applying principles of laboratory animal behavior, anatomy, and physiology. |
| 3 | explain the importance of laboratory animal medicine to improved health of both humans and companion animals. |
| 4 | describe the role of the veterinary technician in biomedical research. |
| 5 | discuss the rules, laws, and guidelines for the care and handling of laboratory animals. |
| 6 | state the regulations pertaining to the caging and facilities for laboratory animals. |
| 7 | explain the physiology, physical examination, and therapeutics for the laboratory animals of primates, rabbits, mice, guinea pigs, and non-traditional animals. |

Course Content**Lecture/Course Content**

- (5.5%) Introduction to Lab Animal Science
- (5.7%) Role of the Veterinary Technician in Biomedical Research
- (5.7%) Lab Animal Rules, Laws and Guidelines
- (8%) Caging and Facilities
- (8.5%) Rat Physiology, Husbandry and Restraint
- (5.7%) Rat Therapeutics and Diseases
- (8%) Mouse Physiology, Husbandry and Restraint
- (5.7%) Mouse Therapeutics and Diseases
- (8%) Rabbit Physiology, Husbandry and Restraint
- (5.7%) Rabbit Therapeutics and Diseases
- (5.7%) Guinea Pig Physiology, Husbandry and Restraint
- (5.7%) Guinea Pig Therapeutics and Diseases
- (5.7%) Primate Physiology, Husbandry and Restraint
- (5.7%) Primate Therapeutics and Diseases
- (5.7%) Non-Traditional Animal Physiology, Husbandry and Restraint
- (5%) Non-Traditional Animal Therapeutics and Diseases

Laboratory or Activity Content

n/a

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
Oral analysis/critiques
Objective exams
Oral presentations
Quizzes
Reports/papers
Research papers

Instructional Methodology

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

Collaborative group work
Class activities
Class discussions
Case studies
Demonstrations
Group discussions
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 illustrations to describe common restraint techniques for medical procedures.

Representative Course Assignments

Writing Assignments

Write a paper on the husbandry, handling and medication techniques of the major species of laboratory animals covered in the course.

Write an essay on the role of the veterinary technician in biomedical research.

Critical Thinking Assignments

Compose a reflection paper sharing their personal philosophy about the use of animals for biomedical research and advancement.

Critique professional journal articles on the role of animals for scientific research.

Reading Assignments

Read chapters in the textbook that correspond with lecture topics on laboratory animals.

Read postings on the online learning management system pertaining to care of animals for biomedical research.

Outside Assignments

Representative Outside Assignments

Conduct a literature review to write a reflection paper on laboratory animals for biomedical research.

Search for career opportunities as a veterinary technician in a research setting within the local region.

Articulation

Comparable Courses within the VCCCD

AG V74 - Introduction to Laboratory Animal and Exotic Companion Animal Medicine

Equivalent Courses at other CCCs

College	Course ID	Course Title	Units
L.A. Pierce College	ANML SC 470	Laboratory Animal Care	3

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**

Resource Type

Textbook

Classic Textbook

No

Description

Sirois, Margi. *Laboratory Animal and Exotic Pet Medicine: Principles and Procedures*. 2nd ed., Mosby, 2015.

Resource Type

Textbook

Classic Textbook

No

Description

Bassert, Joanna. *McCurnin's Clinical Textbook for Veterinary Technicians*. 9th ed., Saunders, 2018.

Library Resources

Assignments requiring library resources

Research on the use of lab animals in preventative and treatment medicine.

Sufficient Library Resources exist

Yes

Example of Assignments Requiring Library Resources

Utilize the Library's print and online resources to research topics such as the utilization of animals for biomedical research.

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

02/03/2020

Dean

02/03/2020

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