Health, Welfare, and Diseases of Shelter Animals Syllabus (APBI 490) Section 202

Introduction to canine/feline health and welfare, and diseases in the shelter setting. Pathophysiology, diagnosis, management, prevention, and treatment of diseases; practical clinical applications to shelter management. The focus will be on diseases that are commonly seen in western Canada.

## Course Description:

This course aims to provide an overview of canine and feline infectious diseases that are commonly encountered in animal shelters. It provides an introduction to the problem-oriented medical record system (POMR), clinical signs, diagnosis, and treatment of disease. It also introduces epidemiology and population-based health, and encourages a critical eye when evaluating husbandry practices.
The relationship between animal welfare and disease will be examined from both a clinical and practical approach.
Case-based discussions and problem-based learning are a crucial part of the course. This will allow students to use the clinical knowledge and skills they have gained and apply it practically to real-life cases.
This course is designed for students with intent to pursue a career in veterinary medicine, students interested in post-graduate animal welfare research, and students with an interest in the animal care community.

## Course Details:

Instructor: Alex Boo, BSc. (Hons), D.V.M
Location: ~~SWING 208 (West Mall Swing Space;~~ Zoom Online until Feb 7th 2022
Time: Mondays 13:00- 16:00
Teaching assistant: There is no teaching assistant for this course
Office hours: There are no structured, scheduled office hours. Students are encouraged to contact the instructor directly through email with any questions.
Textbook: no required textbook material needed. All information will be provided through lecture notes and assigned readings.

## Learning Outcomes:

Upon completion of this course, students will be able to:

- understand the importance of early monitoring, stress management and housing management in the prevention and treatment of disease in the shelter setting
- use the problem oriented medicine approach to present a clinical case and understand its role in diagnosis and patient management
- be able to recognize and describe common clinical signs, diagnoses, and evidence-based treatment methods for common diseases in felines and canines in the shelter setting
- compare the components of a complete and nutritionally balanced diet in canines and felines and its importance in disease management

- understand the term “zoonoses” and its role in shelter animal health, and in a broader setting in global animal health
- explain the link between human, animal, and ecosystem health
- critically summarize and review an infectious disease of their choosing not covered in lecture

Materials and Assessment:

- majority lecture-based course with time allocated for practical case-based discussion

Guided tour of a local animal shelter with patient assessment and critical analysis (10% of total grade).

- ~~Students are expected to attend the animal shelter tour and complete the worksheet provided.~~
- ~~Students who are unable to attend are expected to organize an alternative method of evaluation with the instructor.~~
  - Due to current COVID restrictions, the animal shelter tour will be instead organized as a series of two guest lectures to be attended online. There is an attached worksheet to be completed and handed it for evaluation.
  - The worksheet is due one week after the lecture is attended and each worksheet is worth 5% of total grade

Term group assignment (15% of total grade)

- Critically summarize and review an infectious disease of choice, not covered in lecture; examples include and are not limited to: canine/feline Rabies, Leptospirosis, Lyme disease, and Heartworm disease
- Components include signalment, clinical signs, pathophysiology, physical exam signs, diagnostics helpful to diagnose the disease, treatment options (both ideal and realistic options in the shelter setting), as well as applicable shelter management strategies
- Word limit: 1500 words maximum, diagrams optional (not included in word count).
  - Done in groups of 4 people
  - Groups pre-assigned on Canvas

Midterm (30% of total grade)

- A multiple choice, true/false, and short answer midterm will be scheduled halfway through the term on the material covered in lecture.
- 2 hours in length

Final Exam (35% of total grade)

- A final exam comprising of material from the midterm onwards (non cumulative)
  - Multiple choice, short answer, and case based long –answer questions
  - Breakdown of final exam may change depending on material covered
- 2.5 hours in length

Participation (10% of total grade)

- Students are expected to participate in the case-based discussion portions (in-class) to supplement and support problem-based learning.

| | Points |
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| Animal shelter assignment | 5x 2 |
| Group Term Assignment | 15 |
| Midterm | 30 |
| Final Exam | 35 |
| Participation | 10 |
| | Total: 100 |

A sample lecture schedule is summarized below for (Monday Jan 10- Monday April 4)
-lecture topics may change depending on final decision of instructor.

| **Lecture** | **Topic** | **Reading** |
|---|---|---|
| Introduction | | |
| January 10 | Syllabus overview; Animal Welfare and disease | Fraser, D. Understanding animal welfare: the science in its cultural context Ames, Iowa: Wiley-Blackwell. |
| January 17 | Companion Animal Nutrition; Problem Oriented Medical record | Freeman, L., Becvarova, I., Cave, N., MacKay, C., Nguyen, P., Rama, B., Takashima, G., Tiffin, R., van Beukelen, P., & Yathiraj, S. (2011). WSAVA Nutritional Assessment Guidelines. *Journal of Feline Medicine and Surgery*, *13*(7), 516–525.<br><br>Lorenz, M. D. (2009). The problem-oriented approach. *Small animal medical diagnosis,*. |
| January 24 | Epidemiology and outbreak management; Strategies for disease management in shelters | Miller, L., & Zawistowski, S. (2013). *Shelter medicine for veterinarians and staff.* 2nd ed. Ames, Iowa: Wiley-Blackwell. |
| January 31 | Canine Gastrointestinal Disease<br>Feline Gastrointestinal disease | Miller, L. (2021). *Infectious disease management in animal shelters*. Hoboken, New Jersey: Wiley Blackwell. |

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| February 7th | SPCA Guest Lecture: Feline Mystery GI Capacity for Care | |
| Gastrointestinal Disease | | |
| February 14 | Parasites, Zoonoses | Miller, L. (2021). *Infectious disease management in animal shelters*. Hoboken, New Jersey: Wiley Blackwell.<br><br>Raza, A., Rand, J., Qamar, A., Jabbar, A., & Kopp, S. (2018). Gastrointestinal Parasites in Shelter Dogs: Occurrence, Pathology, Treatment and Risk to Shelter Workers. *Animals*, *8*(7), 108. doi:10.3390/ani8070108 |
| February 21 | **Midterm Break** | |
| February 28 | Midterm | |
| Respiratory Disease | | |
| March 7 | FelV/FIV/FIP | Miller, L. (2021). *Infectious disease management in animal shelters*. Hoboken, New Jersey: Wiley Blackwell.<br><br>Little, S., Levy, J., Hartmann, K., Hofmann-Lehmann, R., Hosie, M., Olah, G., & Denis, K. S. (2020). 2020 AAFP Feline Retrovirus Testing and Management Guidelines. *Journal of Feline Medicine and Surgery*, *22*(1), 5–30. https://doi.org/10.1177/1098612X19895940 |
| March 14 | Canine Respiratory Disease<br>Dermatophytosis | Miller, L., & Zawistowski, S. (2013). *Shelter medicine for veterinarians and staff.* 2nd ed. Ames, Iowa: Wiley-Blackwell.<br><br>Miller, L. (2021). *Infectious disease management in animal shelters*. Hoboken, New Jersey: Wiley Blackwell. |
| March 21 | Dermatophytosis<br>Feline Respiratory Disease | Miller, L., & Zawistowski, S. (2013). *Shelter medicine for veterinarians and staff.* 2nd ed. Ames, Iowa: Wiley-Blackwell.<br><br>Miller, L. (2021). *Infectious disease management in animal shelters*. Hoboken, New Jersey: Wiley |

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| | | Blackwell. |
| March 28 | SPCA guest lecture: Feline URI<br>Final exam review | Wagner D., Kass P., Hurley K. (2018) Cage size, movement in and out of housing during daily care, and other environmental and population health risk factors for feline upper respiratory disease in nine North American animal shelters. PLOS ONE 13(1): e0190140. https://doi.org/10.1371/journal.pone.0190140<br><br>Lappin M., Blondeau J., Boothe D, Breitschwerdt E., Guardabassi L, Lloyd D., Papich M., Rankin S., Sykes J., Turnidge J, Weese J. Antimicrobial use Guidelines for Treatment of Respiratory Tract Disease in Dogs and Cats: Antimicrobial Guidelines Working Group of the International Society for Companion Animal Infectious Diseases. Journal of Veterinary Internal Medicine 2017; 31(2):279-294.<br><br>Wagner D, Hurley K, Stavisky J. Shelter housing for cats: Principles of design for health, welfare and rehoming. Journal of Feline Medicine and Surgery. 2018;20(7):635-642. doi:10.1177/1098612X18781388 |
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| April 4th | Final Exam | |