

Health, Welfare, and Diseases of Shelter Animals Syllabus (APBI 490E) 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: Forestry Sciences Centre (FSC) Room 1003

Time: Mondays 13:00- 16:00

Teaching assistant: Sonja Biablobzyski

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
- describe “access to care” in terms of the one-health umbrella
  - understand the complexity of the barriers/challenges to access to care and be able engage in discussions regarding these topics
  - explain the link between human, animal, and ecosystem health, the human-animal bond
- 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 (5% 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.

Guest Lecturer Worksheets (2 x 5% of total grade)

Term assignment - Review paper or Infographic (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 and prognosis.
- Word limit: 1500 words maximum, diagrams optional (not included in word count).

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.

Final Exam (30% of total grade)

- A final exam comprising of material from the midterm onwards.
  - Multiple choice, short answer, and case based long –answer questions ○

Breakdown of final exam may change depending on material covered

Participation (10% of total grade)

- Students are expected to participate in the case-based discussion prompts online, to supplement and support problem-based learning.

	Points
Animal shelter tour assignment	5
Guest Lecture Assignments	5x2
Term Assignment	15
Midterm	30
Final Exam	30
Participation	10
	Total: 100

A sample lecture schedule is summarized below for (Monday Jan 6- Monday April 7)

-lecture topics may change depending on final decision of instructor.

Lecture	Topic	Reading
Introduction		
Week 1- January 6th 2025	Introduction, expectations, and how does disease apply in the framework of animal welfare? <ul style="list-style-type: none"> <li>Feline idiopathic cystitis</li> </ul>	Fraser, D. Understanding animal welfare: the science in its cultural context Ames, Iowa: Wiley Blackwell.  Naarden, B., & Corbee, R. J. (2020). The effect of a therapeutic urinary stress diet on the short-term recurrence of feline idiopathic cystitis. <i>Veterinary medicine and science</i> , 6(1), 32–38. <a href="https://doi.org/10.1002/vms3.197">https://doi.org/10.1002/vms3.197</a>

Week 2- January 13th 2025	Problem Oriented Medicine Approach	Lorenz, M. D. (2009). The problem-oriented approach. <i>Small animal medical diagnosis</i> .
Week 2- January 13th 2025	Nutrition: the fifth vital assessment	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. <i>Journal of Feline Medicine and Surgery</i> , 13(7), 516-525.
Week 3- January 20th 2025	Managing diseases in a shelter	Miller, L., & Zawistowski, S. (2013). <i>Shelter medicine for veterinarians and staff</i> . 2 <sup>nd</sup> ed. Ames, Iowa: Wiley-Blackwell.
Week 3- January 20th 2025	Epidemiology and One Health	Miller, L., & Zawistowski, S. (2013). <i>Shelter medicine for veterinarians and staff</i> . 2 <sup>nd</sup> ed. Ames, Iowa: Wiley-Blackwell.
Gastrointestinal Disease		
Week 4- January 27th 2025	Canine Viral Gastrointestin al Disease	Miller, L., & Zawistowski, S. (2013). <i>Shelter medicine for veterinarians and staff</i> . 2 <sup>nd</sup> ed.

	-Canine Parvovirus -Canine Distemper virus	Ames, Iowa: Wiley-Blackwell.  Miller, L. (2021). <i>Infectious disease management in animal shelters</i> . Hoboken, New Jersey: Wiley Blackwell.
Week 4- January 27th 2025	Feline Viral Gastrointestinal Disease -Feline Enteric Coronavirus, Feline infectious peritonitis -Feline panleukopenia virus	Miller, L., & Zawistowski, S. (2013). <i>Shelter medicine for veterinarians and staff</i> . 2 <sup>nd</sup> ed. Ames, Iowa: Wiley-Blackwell.  Miller, L. (2021). <i>Infectious disease management in animal shelters</i> . Hoboken, New Jersey: Wiley Blackwell.
Week 5- February 3rd 2025	Feline Mystery GI- Guest Lecturer Dr. Emilia Wong-Gordon	Di Profio F, Sarchese V, Palombieri A, et al. Feline chaphamaparvovirus in cats with enteritis and upper respiratory tract disease. <i>Transboundary and Emerging Diseases</i> 2021.  Li Y, Gordon E, Idle A, et al. Virome of an outbreak of feline diarrhea and vomiting includes bocaparvoviruses and a novel chapparvovirus. <i>Viruses</i> 2020; 12(5), 506.  Li Y, Gordon E, Idle A, et al. Astrovirus Outbreak in an Animal Shelter Associated With Feline Vomiting. <i>Front Vet Sci</i> 2021; 8:628082.
Week 5- February 3rd 2025	Midterm Review	

<p>Week 6 February 10th 2025</p>	<p>Parasites (both dogs and cats) Campylobacter, Clostridium, Salmonella, Cryptosporidium, Isospora, Toxoplasma, Trichomonas foetus, Nematodes</p>	<p>Raza, A., Rand, J., Qamar, A., Jabbar, A., &amp; Kopp, S. (2018). Gastrointestinal Parasites in Shelter Dogs: Occurrence, Pathology, Treatment and Risk to Shelter Workers. <i>Animals</i>, 8(7), 108. doi:10.3390/ani8070108</p>
<p>Week 6 February 10th 2025</p>	<p>External Parasites: Sarcoptic Mange Demodectic Mange Dermatophytosis Fleas Ticks Ear mites</p>	<p>Miller, L., &amp; Zawistowski, S. (2013). <i>Shelter medicine for veterinarians and staff</i>. 2<sup>nd</sup> ed. Ames, Iowa: Wiley-Blackwell.</p> <p>Miller, L. (2021). <i>Infectious disease management in animal shelters</i>. Hoboken, New Jersey: Wiley Blackwell.</p>
<p>Week 6 February 10th 2025</p>	<p>Capacity 4 Care</p>	<p>Karsten C., Wagner D., Kass P., Hurley K. (2017). An observational study of the relationship between Capacity for Care as an animal shelter management model and cat health, adoption and death in three animal shelters. <i>The Veterinary Journal</i> 227:15-22.</p>

Week 7 - Midterm Break February 17th 2025		
Week 8 - Midterm Exam February 24th 2025		
Respiratory Disease		
Week 9 - March 3rd 2025	Feline Respiratory Disease -Feline Calicivirus -Feline Herpesvirus -Chlamydomphila felis -Mycoplasma	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. <i>Journal of Feline Medicine and Surgery</i> , 22(1), 5- 30. <a href="https://doi.org/10.1177/1098612X198959">https://doi.org/10.1177/1098612X198959</a>
Dermatological Disease		
Week 9 March 3rd 2025	Dermatophytosis	Miller, L., & Zawistowski, S. (2013). <i>Shelter medicine for veterinarians and staff</i> . 2 <sup>nd</sup> ed. Ames, Iowa: Wiley-Blackwell.  Miller, L. (2021). <i>Infectious disease management in animal shelters</i> . Hoboken, New Jersey: Wiley Blackwell.

Week 10 March 10th 2025	Tale of Two URI	<p>Miller, L., &amp; Zawistowski, S. (2013). <i>Shelter medicine for veterinarians and staff</i>. 2<sup>nd</sup> ed. Ames, Iowa: Wiley-Blackwell.</p> <p>Miller, L. (2021). <i>Infectious disease management in animal shelters</i>. Hoboken, New Jersey: Wiley Blackwell.</p>

Week 11 March 17th 2025	<p>Canine Respiratory Disease</p> <ul style="list-style-type: none"> <li>-Canine Infectious Respiratory Disease Complex</li> <li>-Canine Distemper Virus</li> <li>-Canine Influenza Virus</li> </ul>	<p>Miller, L., &amp; Zawistowski, S. (2013). <i>Shelter medicine for veterinarians and staff</i>. 2<sup>nd</sup> ed. Ames, Iowa: Wiley-Blackwell.</p> <p>Miller, L. (2021). <i>Infectious disease management in animal shelters</i>. Hoboken, New Jersey: Wiley Blackwell.</p> <p>Cheung, W., Ellis, A., Idle, A., Protopopova, A., &amp; Gordon, E. (2024). Retrospective Comparison of Polymerase Chain Reaction and Culture-Based Identification for Diagnosis of <i>Microsporum canis</i> and <i>Trichophyton</i> Spp. in Shelter Cats and Dogs. <i>Journal of Shelter Medicine and Community Animal Health</i>, 3(1). <a href="https://doi.org/10.56771/jismcah.v3.86">https://doi.org/10.56771/jismcah.v3.86</a></p>
Feline Retroviruses		
Week 11 March 17th 2025	<p>Feline immunodeficiency virus</p> <p>Feline Leukemia virus</p> <p>Feline Infectious Peritonitis</p>	<p>Miller, L., &amp; Zawistowski, S. (2013). <i>Shelter medicine for veterinarians and staff</i>. 2<sup>nd</sup> ed. Ames, Iowa: Wiley-Blackwell.</p> <p>Miller, L. (2021). <i>Infectious disease management in animal shelters</i>. Hoboken, New Jersey: Wiley Blackwell.</p>



<p>Week 12 March 24th 2024</p>	<p>Guest Lecturer- <b>Sonja</b> <b>Bialobyzyski</b> Research Topic,</p>	
<p>Week 13 March 31st 2025</p>	<p>BC SPCA Shelter and Hospital Tour - Dr. Kyla Townsend/</p>	<p>Address:  1205 E 7th Ave, Vancouver, BC V5T 1R1</p>
<p>Week 14 April 7th 2025</p>	<p>Lecture topic Final Exam Review</p>	
<p>Final Exam Season</p>	<p>Final Exam During Exam Season</p>	