UNIVERSITY OF SASKATCHEWAN

VINT 580

Rotation Descriptions

WCVM Class of 2022

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Western College of Veterinary Medicine
VINT 580 ROTATION DATES
2021-2022

Weeks	Dates		
S1 – 2	April 26, 2021	–	May 9, 2021
S3 – 4	May 10, 2021	–	May 24, 2021
S5 – 6	May 25, 2021	–	June 6, 2021
S7 – 8	June 7, 2021	–	June 20, 2021
S9 – 10	June 21, 2021	–	July 4, 2021
S11 – 12	July 5, 2021	–	July 18, 2021
S13 – 14	July 19, 2021	–	August 2, 2021
S15 – 16	August 3, 2021	–	August 15, 2021
S17 – 18	August 16, 2021	–	August 29, 2021
1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
Holiday	**December 20, 2021**	**–**	**January 3, 2022**
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
Midterm Break	**February 26, 2022**	–	**February 28, 2022**
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

All 4th Year Clinical Rotations begin Monday's at 8:00 a.m.
Students, who are on-call or have patients in the hospital, are responsible to be on service until Monday at 8:00 a.m. to end their rotation

Statutory Holidays are treated as a Saturday or Sunday during the 4th Year of the DVM Program. When a Holiday falls at the beginning of a rotation, the rotation will begin on Tuesday 8:00 a.m.

All dates are inclusive

Agwest Veterinary Group

ROTATION CODE:	AGW
INSTRUCTORS:	Drs. L. MacLeod and B. Potvin (Directors); Drs. B. Fawcett, S. Chiasson, and L. McCrea
DURATION:	2 weeks
TIMING:	pre-draft application procedure
STUDENT NUMBERS:	1 per rotation
DESCRIPTIVE:	Agwest Veterinary Group is a five-veterinarian large animal practice located in Abbotsford, BC. Our two areas of focus are high-quality and progressive dairy and equine medicine. We also service a limited number of small ruminant and camelid clients. We take pride in our preventative and collaborative approach to medicine and wish to share this attitude with visiting students. Students taking the Agwest rotation will be able to tailor their experience to their interests (dairy, equine, or mixed) and can expect to participate in a wide array of medical and surgical procedures utilizing state-of-the-art equipment and techniques. The student may elect to spend the two-week rotation solely in equine or bovine practice, or spend one week of the rotation with each service. Our equine practice is comprised of sport horses, recreational horses, and broodmares. We employ digital radiography and ultrasonography in addition to videoendoscopy (including gastroscopy) as imaging modalities, and provide sports medicine treatments such as extracorporeal shockwave therapy (ESWT) and regenerative medicine (Pro-Stride ACS, platelet-rich plasma, and stem cell therapy). Our equine veterinarians see a variety of patients including dental, lameness, reproductive, internal medicine, and minor surgical cases. We provide both hospital and ambulatory services to our clients.Our dairy practice services farms ranging from 50 to 650 cow herds. We take a proactive, collaborative approach to herd consulting, working with industry professionals including financial consultants, hoof trimmers and nutritionists. We place a strong emphasis on client education. Our herd health management programs incorporate data/records analysis (ie. Dairy Comp), ultrasound-based reproduction, production evaluation, udder health/ parlour evaluation, cow comfort/lameness evaluation, nutrition evaluation, and facility evaluation. Agwest offers a complete embryo transfer (ET) service including a mobile laboratory as well as in-vitro fertilization (IVF) through collaboration with Boviteq West. Our medicine and surgery practice includes obstetrics,

digital ultrasound and radiography, acupuncture and Aqua Cow Rise System (float tank).

Students will participate in examining and treating patients both on the road and in clinic. The amount of hands-on experience provided will be based on preparedness for the given procedure. Students are encouraged to prepare ahead of time for scheduled calls and to have a basic understanding of common emergencies seen in equine and/or bovine practice in order to get the best educational experience at Agwest.
Evaluation is based on attitude, preparedness, knowledge, and clinical proficiency. Depending on caseload, the student may be assigned to a project, and this will contribute to his or her grade.

Housing and transportation is not provided, but Agwest can help the student make these arrangements. To apply for this rotation, please send a cover letter and curriculum vitae to office@agwestvet.com .

Alberta Provincial Government (Edmonton)

ROTATION CODE: ABL

INSTRUCTORS: Dr. Hernan Ortegon, Dr. Madhu Ravi

DURATION: 2 weeks

TIMING: 21 – 22 January 31, 2022 – February 13, 2022

STUDENT NUMBERS: 2 students per rotation

DESCRIPTIVE: Animal Health and Assurance Branch is responsible for developing and maintaining legislation and policies relating to livestock health and food safety in the province.

The students will be familiarized with the role of veterinarians in provincial government as it relates to the development of legislation and policy related to animal health, welfare, food safety and surveillance activities conducted by technical team to mitigate risks to international and local and international market access for livestock and livestock products.

Expected Outcomes:

1. Become familiarized with the role of provincial government veterinarians in animal health surveillance, animal welfare, food safety and disease investigations in livestock and poultry.
2. Work with veterinary epidemiologists to develop risk based analysis and decisions for infectious and toxic agents to animal health and food safety.
3. Work with veterinary pathologists to conduct postmortems and provide pathologic diagnosis in livestock and poultry.
4. Engage in disease investigations in livestock and poultry diseases with our surveillance veterinarians and toxicologists.
5. Participate in the collection of appropriate diagnostic samples and understand the relevant diagnostic tests for disease investigation.
6. Become familiar with Federal and Provincial regulations as they relate to livestock health and food safety.

Evaluation:

Students will be expected to research and prepare a 10-15 minute case presentation during their last week from a case that will be presented to them during the course of the rotation. This will be part of their evaluation process in addition to daily participation and evaluation of clinical and diagnostic skills.

Practice Description/Caseload:

The Animal Health and Assurance Branch is integrated by five sections: Chief Provincial Veterinarian, Livestock Traceability, Animal Health, Inspections and Investigations and Animal Welfare.

Student's time will generally be spent in the Animal Health Section which is staffed by technical experts in pathology, toxicology, theriogenology, epidemiology and programs.

Our team has worked on *Salmonella Enteriditis* and ILT in poultry and *Salmonella Typhimurium* and *S. Dublin* outbreaks and lead toxicity cases in cattle. Other disease investigations included different cases of abortions in cattle, non-quota-non commercial backyard poultry flocks, sheep and goats and neonatal mortalities in cattle.

We have an ongoing real-time cattle and swine veterinary practice surveillance.

We have ongoing research in food-born pathogens in poultry at the farm and at the processor level. We also support cross departmental activities such as Fish and Wildlife of Alberta Environment and Parks, and provincial meat inspection services.

The Branch has three post-mortem facilities located around the province with a pathologist in Edmonton and veterinary technologists on staff in Airdrie and Edmonton, Fairview and Lethbridge.

The Branch is also very active in BSE, Chronic Wasting Disease and Scrapie surveillance in cattle, farmed and wild cervids, and sheep and goats.

CONTACT: Dr. Hernan Ortegon (hernan.ortegon@gov.ab.ca) tel. 780-644-2148
Dr. Madhu Ravi (madhu.ravi@gov.ab.ca) tel. 780-427-8285

Anesthesia

ROTATION CODE: ANE

INSTRUCTORS: Drs. B. Ambrose, T. Duke, S. Beazley

DURATION: 4 weeks

TIMING:

1 – 4	August 30, 2021	–	September 26, 2021
5 – 8	September 27, 2021	–	October 24, 2021
9 – 12	October 25, 2021	–	November 21, 2021
13 – 16	November 22, 2021	–	December 19, 2021
17 – 20	January 4, 2022	–	January 30, 2022
21 – 24	January 31, 2022	–	February 25 (6PM), 2022
25 – 28	March 1, 2022	–	March 27, 2022
29 – 32	March 28, 2022	–	April 24, 2022

STUDENT NUMBERS: 8-11 students per rotation

DESCRIPTIVE: This course is designed to introduce the student to all aspects of clinical veterinary anesthesiology. By the end of this rotation it is anticipated that the student will be able to:

- Perform patient evaluation and assessment relevant to anesthesia.
- Develop an anesthetic plan that considers patient needs, procedure to be undertaken, potential complications, and optimal pain management.
- Be familiar with basic clinical pharmacology, physiology and pathophysiology of the perioperative period.
- Understand and apply supportive care in the perioperative period.
- Set up of anesthesia workstation and perform safety checks.
- Perform general anesthesia in healthy patients with minimum supervision.
- Have appropriate knowledge and abilities to recognize and manage common anesthetic complications.
- Have the appropriate knowledge in how to use standard anesthetic equipment.
- Be able to plan and implement appropriate pain relief/management

Students are generally assigned to the Small Animal and Large Animal Anesthesia. Flexibility between Small and Large Animal Anesthesia will be allowed depending on student interests, but this may depend on caseload.

Morning rounds will be held daily except for Friday where students are expected to present their case workups. On Friday the student is expected to attend the Friday morning seminars between 8-9am.

Afternoon topic rounds will be held depending on the clinical service. Students are expected to prepare for and participate in topic rounds.

Evaluation: Students evaluation will be based on the following factors:

- Clinical performance
  Intellectual participation (rounds)
- DEPA (25%)
- Written Quiz (15%)

* A student may take this rotation only once.

BC Provincial Lab (Abbotsford)

ROTATION CODE: BCL

INSTRUCTORS: Drs. A. Britton, S. Raverty, V. Bowes, C. Himsworth, and G. McGregor

DURATION: 2 weeks

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
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19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 1-2 student per rotation

DESCRIPTIVE: Do you want to have an exciting, hands-on, real-world experience? Do you think you will use a diagnostic laboratory in your future veterinary career? If so, then come spend some time with our team of board-certified pathologists. The rotation is devoted to the post-mortem examination of a range of animal species submitted through The Animal Health Centre (AHC), a high-volume, full-service veterinary diagnostic laboratory located in Abbotsford, British Columbia. Students gain experience in developing a diagnostic plan, conducting a complete necropsy, collecting samples, identifying and interpreting gross and microscopic pathology, using laboratory tests (e.g., bacteriology, virology, PCR, serology) to investigate differential diagnoses, synthesizing and interpreting information to make a diagnosis, documentation of case findings, and communicating with different types of clients and stakeholders. This experience will help you to develop your skills as a diagnostician no matter what field of veterinary medicine you pursue. We encourage students to take responsibility for cases, which fosters an effective learning environment. Plus, where else

could you handle a cow, cat, chicken, cougar, and capybara all in single day!

Students must provide their own footwear (rubber boots).

Students may apply for specialty rotations prior to the draft in Poultry Health or Fish Health dependant on the lab's availability.

** It is recommended that students taking this rotation have already completed the core Diagnostic Pathology rotation.

* A student may take this rotation only once

CONTACTS: Dr. Glenna McGregor (glenna.mcgregor@gov.bc.ca)

BC SPCA Animal Welfare (Online)

ROTATION CODE: BCA

INSTRUCTORS: Dr. Emilia Gordon, DABVP-SMP (Senior Manager, Animal Health)
Dr. Karen van Haaften, DVM, DACVB (Senior Manager, Behaviour & Welfare)
Mandi Idle, RVT (Animal Health Coordinator)

DURATION: 2 weeks

TIMING: Weeks 17-18 January 4, 2022 – January 16, 2022

STUDENT NUMBERS: 6 students per rotation

DESCRIPTIVE: For senior students, with preference given to students from B.C. or planning to practice in B.C. Students participating in this virtual rotation will gain an understanding of shelter medicine; content is also relevant to companion animal general practice. Materials will be largely case-based and the rotation will include lectures, discussion, directed reading, and student projects. Most content will be delivered live, but up to 20% may be pre-recorded. Student assessment will be based on participation and case-based student projects.

Students completing this rotation will:

1. Design biosecurity and population management plans for common shelter infectious diseases
2. Conduct outbreak investigations
3. Apply and interpret diagnostic tests for common infectious diseases in various shelter resource scenarios
4. Apply clinical behaviour concepts in sheltered animals
5. Learn basic principles of veterinary forensics and animal welfare law enforcement
6. Understand animal welfare epidemiology- the flow of animals into and out of shelters in North America
7. Discuss community medicine principles including incremental care and One Health

Components:

1. SHELTER MEDICINE (25 hrs/week):
   a. Live, case-based lectures and discussion: shelter intake and management practices, infectious diseases relevant in Western Canada, population management and biosecurity, outbreak investigations, diagnostic tests (applications, cost, limitations), zoonotic disease recognition and risk management, veterinary forensics and animal welfare law enforcement, judicious use of shelter resources, animal welfare epidemiology, community medicine, and future directions (equity in sheltering and

enforcement, community-based programming).

b. Directed reading of primary literature and paper discussions regarding above topics (time will be allotted for reading during the day)

c. Student projects (pairs or small groups): case-based scenarios

2. SHELTER BEHAVIOUR & WELFARE (6-8 hours/week):

a. Clinical shelter behaviour instruction: mix of pre-recorded lectures and live case-based discussion (led by Dr. Karen van Haaften, DACVB)

b. Fear Free Shelters Online Course: shelter-specific asynchronous content about the management of the emotional health of cats and dogs in shelter confinement (free enrolment)

3. OTHER (2-4 hr/week): BC SPCA program meetings (e.g. Outreach, Veterinary Services, Cruelty Investigations), UBC animal welfare program discussions, other relevant content as available

Note: Students interested in doing an unofficial externship on their own time (e.g. summer) may contact Dr. Gordon directly (suspended as of March 2020; future availability pending lifting of COVID-19 restrictions).

CONTACTS:

Dr. Emilia Gordon
(604) 506-2214
egordon@spca.bc.ca

Ms. Mandi Idle
(236)333-9602
midle@spca.bc.ca

Beausejour Animal Hospital – External Diary Rotation

INSTRUCTORS:	Drs. C. Leppelmann , E. Maguet, K. Swirsky, A. Pylypjuk, and C. Penner
DURATION:	2 weeks
TIMING:	Pre-draft application procedure (No summer rotations available)
STUDENT NUMBERS:	1 per rotation to allow the most hands on experience
DESCRIPTIVE:	Beausejour Animal Hospital is a large independently owned mixed animal practice located in Beausejour, MB. We are a 50% large animal, and 50% small animal clinic. With the proportion of large animal being made up of approximately 80% dairy, 10% beef, 5% equine and a small percentage of small ruminant, camelid, swine, and poultry patients. Students will be primarily focusing on dairy while at our clinic despite us being a mixed animal practice. Our dairy practice services farms ranging from 40 to 1350 cow herds. We aim to help dairy producers maximize cow health and comfort by looking at herd production data and health indicators. Total Dairy Health Services include ultrasound based reproductive examinations, data/record analysis (i.e. Dairy Comp), production evaluation, udder health evaluation with in house milk culturing, parlour evaluation, cow comfort/lameness evaluation, facility evaluation, embryo transfer, protocol development, and employee training. Students will participate in examining and treating patients both on the road and in clinic. The amount of hands-on experience provided during surgeries/procedures will be based on preparedness for the given procedure. Students are encouraged to prepare ahead of time for scheduled calls and to have a basic understanding of common emergencies seen in bovine practice in order to get the best educational experience at Beausejour Animal Hospital. We have 24/7 emergency services for dairy and large animal and although we do encourage students to be available for after hours emergencies to optimize experience, it is not a requirement of the rotation. Students are encouraged to apply for the student IMV easi-scan loaner ultrasound for the two weeks while on the rotation. Students can apply at: https://www.imv-imaging.com/university-program/university-program/student-loan-easi-scan/ The use of the

ultrasound will primarily be in the second week of rotation depending on overall experience with manual rectal palpation.

Evaluation is based on attitude, preparedness, knowledge, and clinical proficiency. Depending on caseload, the student may be assigned to a project, and this will contribute to his or her grade.

Housing and transportation is not provided, but Beausejour Animal Hospital can help find housing/transportation options if needed.

Calgary Zoo Animal Health Center – Zoo Medicine

ROTATION CODE: CALZ

INSTRUCTORS: Dr. D. Whiteside and Dr. S. Black

DURATION: 4 week rotation

TIMING: pre-draft application procedure

Weeks 9-12 October 25, 2021 – November 21, 2021
Weeks 29-32 March 28, 2022 – April 24, 2022

STUDENT NUMBERS: 1 student per rotation

DESCRIPTIVE: This rotation is designed to familiarize students with the clinical care of zoological species, and expose them to the multi-faceted aspects of zoological medicine. Externs will be exposed to, and participate in, the various aspects of zoological medicine including general medicine and surgery (including clinical techniques and diagnostics), restraint of various species, preventive health care programs, quarantine procedures, nutrition and husbandry, behavioural husbandry programs, pathology, endangered species breeding programs, and daily interactions with animal care staff.

Expected Outcomes:

1. Identify the essential duties of a zoo veterinarian.
2. Develop an understanding of the roles of the veterinary team, curators, animal care staff, and conservation biologists at the zoo in the management strategies for captive wildlife.
3. Become familiarized with the role of zoo veterinarians in conservation efforts and the potential areas of research that will bridge knowledge gaps between free ranging and captive wildlife species.
4. Develop an understanding of the role that accredited zoological parks and aquariums play in modern society describe how they contribute to the management of endangered species.
5. Understand the public and ethical issues facing zoos and be aware of the animal welfare issues involved in zoo veterinary medicine.
6. Develop an understanding of zoo terminology.
7. Identify the basic taxonomy of zoological species.
8. Become familiar with preventive medicine, emergency care, quarantine, nutrition, husbandry and environmental needs, training, enrichment, exhibit design, captive breeding or contraception, shipping regulations, and research with zoo animals.
9. Develop an understanding of the medical and surgical principles of zoo practice and the limitations associated with the capture, restraint (chemical and manual), diagnosis and treatment of medical conditions in zoo animals.

10. Become familiar with physical and chemical restraint techniques, anesthetic agents commonly used in zoo medicine, indications for their use, and the delivery immobilization equipment (pole syringe, blow pipes, firearms).
11. Be familiar with transport, movement, capture, and anesthesia methods to reduce risk and stress related morbidity and mortality in zoological species.
12. Expand upon and apply veterinary medical knowledge in the management and treatment of zoo/exotic animal species.
13. Recognize anatomical and physiological differences between animal(s) and common domestic species, and be able to carry out a species appropriate physical examination.
14. Participate in the collection of appropriate diagnostic samples and understand the relevant diagnostic tests for disease investigation.
15. Administer oral medications, and perform intravenous, intramuscular and subcutaneous injections in various zoological taxa.
16. Learn to perform a necropsy with appropriate sample collection on a deceased wildlife species.
17. Identify biosecurity and safety issues in a zoological setting including zoonotic disease.
18. Become familiar with the professional organizations and resources available to the zoo veterinarians.
19. Be familiar with Federal and Provincial regulations as they relate to zoo populations.

Evaluation:

Students will be expected to research and prepare a 10-15 minute case presentation during their last week from a case they have seen during their rotation. This will be part of their evaluation process in addition to daily participation and evaluation of clinical and diagnostic skills.

Practice Description/Caseload:

The Calgary Zoo is home to approximately 1000 animals of 180 different species. The zoo actively participates in numerous Species Survival Programs as well as captive management programs for Canada's most endangered mammal- the Vancouver Island Marmot, and most endangered bird- the Whooping Crane. The Calgary Zoo Animal Health Centre is an ABVMA accredited veterinary hospital which provides the veterinary care for all of the animals at the Calgary Zoo and its associated Wildlife Conservation Centre (WCC). The hospital includes a central treatment room, a large surgical suite, radiology and imaging suite, necropsy facilities, clinical laboratory, quarantine facilities, animal holding areas, and a meeting room with a reference library. Ambulatory services are provided to the zoo and the WCC.

The Animal Health Centre is staffed by three veterinarians, three registered animal health technologists, a veterinary intern and two zookeepers. The

caseload is approximately 900 patients a year. In addition, occasional wildlife cases are triaged.

Contact: Dr. Doug Whiteside (dougw@calgaryzoo.com) or (403) 232-9390

Canada West Veterinary Specialists – Emergency and Critical Care

ROTATION CODE: CWC

INSTRUCTOR: Dr. Carsten Bandt, DVM, Dip. ACVECC
Dr. Teresa Cheng, DVM, MSc, Dip. ACVECC
Dr. Trevor Enberg, DVM, Dip. ACVECC
Dr. Kirsty Royle, DVM, Dip. ACVECC
Dr. Chris Kennedy, DVM, Dip. ACVECC
Five highly trained hospitalists (non-specialist emergency doctors) also complement their team along with ERCC dedicated veterinary technicians, 5 of which are Veterinary Technician Specialists (VTS) in Emergency and Critical Care.

DURATION: 2 weeks

TIMING:

S3 – 4	May 10, 2021	–	May 24, 2021
S5 – 6	May 25, 2021	–	June 6, 2021
S9 – 10	June 21, 2021	–	July 4, 2021
1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
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13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 1 students per rotation

DESCRIPTIVE: **Objectives** - To provide the 4th year student with the basic skills and understanding in the management of commonly encountered emergency situations. To help build confidence in the appropriate approach to emergency cases. To introduce the complexities involved in the management of critically ill patients. To discuss the pathophysiology behind the diseases presented in the emergency and critically ill setting.

Specific goals to complete:

- Techniques for cardiopulmonary resuscitation (CPR)
- Thoracocentesis (diagnostic and therapeutic)
- Abdominocentesis (diagnostic and therapeutic)
- Approach to chest tube placement
- Approach to pericardiocentesis
- Fluid therapy in emergency and critical care
  - Cystalloids
  - Synthetic colloids
  - Natural colloids
- Pain control
- Nutritional support with emphasis on tube placement techniques
- Practical management of critical patients (ie. application of constant rate infusions, oxygen delivery, etc.)

Will we provide an open-book quiz in which the student will be expected to complete over the duration of the rotation. Near the end of the rotation, there will be an open forum to discuss the answers to the quiz. Students will also complete a case presentation at the end of their rotation.

Expectations -
Use of any social media is not permitted during rotation hours.
Work days: to be determined by the caseload (days will begin at 8 am)
Work hours: to be determined by the caseload

We encourage the students to request any additional topics or specific learning objectives not included in the outline above.

* A student may take this rotation only once.

CONTACTS: Ellie Baergen (ebaergen@canadawestvets.com)

Canada West Veterinary Specialists – Neurology

ROTATION CODE: CWN

INSTRUCTOR: Dr. Nick Sharp
Dr. Laura Barnard

DURATION: 2 weeks

TIMING:

S15 – 16	August 3, 2021	–	August 15, 2021
S17 – 18	August 16, 2021	–	August 29, 2021
1 – 2	August 30, 2021	–	September 12, 2021
13 – 14	November 22, 2021	–	December 5, 2021
17 – 18	January 4, 2022	–	January 16, 2022
29 – 30	March 28, 2022	–	April 10, 2022

STUDENT NUMBERS: 1 students per rotation

DESCRIPTIVE: Their grade will be based on showing us that they understand the neurologic examination and neurolocalization in simple terms, i.e. that they can differentiate forebrain versus brainstem disease; central versus peripheral vestibular disease; and that they understand localization of a lesion to one of the four regions of spinal cord. Also to understand diagnostic and treatment options for seizures and for paresis and know where to find further information on these subjects. Finally to understand that one or two weeks on neurology will almost certainly not be enough to be able to learn how to examine and localize a dog accurately themselves, as this often takes a neurology resident 6-months or so; rather that they understand the principles behind these skills.

MISCELLANEOUS: Attire: Extern's own surgical scrubs or lab coat

Remuneration: None

Housing: Not provided

Travel: Students are expected to provide their own means to come to Vancouver

* A student may take this rotation only once.

CONTACTS: Ellie Baergen (ebaergen@canadawestvets.com)

Canada West Veterinary Specialists – Surgery

ROTATION CODE: CWS

INSTRUCTOR: **Surgeons:**
Dr. Alan Kuzma
Dr. Michael King
Dr. Sevima Aktay
Dr. Willemjin Hoorntje

DURATION: 2 weeks

TIMING:

S7 – 8	June 7, 2021	–	June 20, 2021
3 – 4	September 13, 2021	–	September 26, 2021
7 – 8	October 12, 2021	–	October 24, 2021
11 – 12	November 8, 2021	–	November 21, 2021
15 – 16	December 6, 2021	–	December 19, 2021
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 1 students per rotation

DESCRIPTIVE:

Objective:
To increase the 4th year student's understanding of common surgical conditions, including pathophysiology, diagnostics, peri-operative care, anesthetic management, and surgical techniques.

Specific Goals:

- Approach to the orthopedic examination
- Development of appropriate anesthetic protocols
- Development of appropriate post-operative analgesic regimen
- Application of appropriate diagnostic techniques in workup of
- surgical cases
- Arthrocentesis
- Understanding of different suture materials/patterns, and their appropriate application.

Expectations:
Work days: Monday-Friday
Work Hours: Determined by caseload (days will begin at 8:30am)
Use of social media is not permitted during rotation hours.

Students are expected to assess all surgical inpatients initially each morning of the rotation, to be able to discuss the case with the Attending Surgeon regarding treatment plans.

Each student is expected to prepare for any scheduled surgery they plan to observe, by reading appropriate texts and journal articles pertaining to the procedure.

Students will be expected to scrub in to assist in surgical procedures at the Surgeon's discretion.

Students will be able to be present in Surgical consultations with clients to observe, but will not have case responsibility, or direct communication with clients, other than at the discretion of the Attending Surgeon.

MISCELLANEOUS:

Attire: Extern's own surgical scrubs or lab coat
Housing: Not provided
Travel: Students are expected to provide their own means to come to Vancouver

* A student may take this rotation only once.

CONTACTS: Malena McGrogan (mmcgrogan@canadawestvets.com)

Canadian Sled Dog Races

ROTATION CODE: SLED

INSTRUCTOR: Dr. R. Pinto

DURATION: 2 weeks

TIMING: Weeks 23 – 24 February 16, 2021 – 6 pm February 26, 2022

****Rotation includes a full day on a STAT holiday. It also includes the evening of Feb 25th and a full day on Feb 26th, which are part of the Midterm Break. In compensation for this and due the large number of hours worked during the week of the race, the rotation will begin on Wednesday Feb 16th.**

Organization meetings prior to the race will be required and will be scheduled based on students' availability.

STUDENT NUMBERS: 3 students per rotation

DESCRIPTIVE: *This rotation contains extended days and out of hours requirements which are essential components of the clinical experience.*

In the first week of the rotation, students will learn about sled dog medicine, including examination of sled dogs and common health conditions. They will be required to research and briefly present a topic related to sled dog health. An excursion to a sled dog kennel will be included.

In the second week of the rotation, students will participate in the evaluation and care of the sled dogs running in the Canadian Challenge Sled dog race. Due to time constraints in a race, this may sometimes consist of observing race veterinarians and recording findings. When time permits, students will have the opportunity to examine dogs. They will also participate in any required treatment of dogs in typical field conditions.

Students will need to be prepared for long days, outside in extremely cold weather. Good quality winter gear is required. This rotation will require students to be in attendance at the race for its entire duration. Care is provided to dogs 24 hours per day throughout the race. Sleep will be limited at times and may consist of short naps in vehicles at some check points. During the race, travel will occur through remote northern communities as well as through wilderness checkpoints.

**Please note that students with dietary restrictions may need to ensure that they provide all their own meals as the majority of meals in the past have consisted of meat and contained gluten.

**Students are required to have a current and valid drivers license.

**A remote clinical practice rotation prior to this rotation is recommended, but not required

Canine Rehabilitation

ROTATION CODE: CRH

INSTRUCTORS: Dr. R Pinto, Dr. K. Penney

DURATION: 2 weeks

TIMING:

S11-S12	July 5, 2021	-	July 18, 2021
7 – 8	October 12, 2021	–	October 24, 2021
13 – 14	November 22, 2021	–	December 5, 2021

STUDENT NUMBERS: 4 students per rotation

DESCRIPTIVE: Daily activities will consist of topic rounds as well as participation in the treatment of clinical rehabilitation cases. Students will be required to present a relevant scientific article of their choice during the first week and a comprehensive rehabilitation plan they have designed during the second week.

Rotation hours are generally from 8:00 am to 5:00 pm Monday to Friday, however, some patient care for in-hospital patients may be required evenings and weekends. One day each week, students will be required to stay late for appointments. There will be no on-call duties.
.
Background reading from the textbook Canine Rehabilitation and Physical Therapy (2nd edition) by Darryl Millis MS DVM, David Levine PhD PT, and Robert A. Taylor DVM MS is required before the start of the rotation. This textbook is on reserve in the library. A review of canine applied anatomy, particularly bones and muscles is also required.

Grading will be based on knowledge, rounds participation, skill in rehabilitation techniques, patient care, attitude and the presentation of a scientific article and treatment plan.

Goals:

- to understand the healing of various tissues, as well as their response to disuse and remobilization
- to become familiar with the approach to rehabilitation of cases involving post-operative orthopedics, neurologic cases and soft tissue injuries
- to perform initial evaluations on clinical cases and formulate treatment plans with the guidance of a rehabilitation clinician
- to become competent with basic techniques such as massage, passive range of motion, stretching and rhythmic stabilization
- to understand the use of modalities such as heat, ice, therapeutic ultrasound, acupuncture, E-stim and low-level laser
- to understand the application of therapeutic exercises such as cavelettis, sit to stands and the underwater treadmill

- to become familiar with some of the scientific literature on canine rehabilitation

On completion of the rotation, students should be familiar with many of the concepts in rehabilitation, however, it is still recommended that those interested in practicing rehabilitation medicine take further training and become certified practitioners.

* A student may take this rotation only once.

C.A.R.E. Centre Animal Hospital ER Rotation

INSTRUCTORS:	Dr. J. Murray	
DURATION:	2 weeks	
TIMING:	Weeks 13-14	November 22 – December 5, 2021
	Weeks 31-32	April 11 – April 24, 2022
STUDENT NUMBERS:	2 students per rotation	

DESCRIPTIVE: The rotation is designed to expose students to the management of small animal emergency and critical care cases beyond the fundamentals of initial triage and stabilization. It will allow students that have an interest in emergency medicine and critical care (or small animals in general) to expand their knowledge, clinical skills and experience in these areas. It is expected that discussions of the cases that have presented to the practice will be performed with the students to ensure understanding of the disease processes at hand.

Goal(s) of rotation:

1. Expose students to a broad emergency caseload.
2. Recognize unstable patients and emphasize/employ the principles behind urgent stabilization.
3. Collect a relevant history and perform a clinical examination of an individual animal or a small group of animals.
4. Participate in the collection of appropriate diagnostic samples (eg. venipuncture, swabs for cultures and gram stains, radiographs, ultrasounds, etc.) and understand the relevant diagnostic tests for disease investigation.
5. Interpret clinical exam findings and diagnostic test results, generate a list of differential diagnoses, and develop a plan for patient management.
6. Understand the therapeutic options, and the rationale behind appropriate drug selection (eg. antimicrobials, analgesics, anesthetics, etc.) in small animal medicine practice.

Details of the rotation (including caseload, personnel, policies, pre-requisites, insurance requirements, expectations, extra costs involved, evaluation):

It is expected that the majority of the rotation will focus on receiving emergency cases (60-80%) with the remainder of the time spent on managing hospitalized patients. The rotation will also introduce and reinforce key concepts (e.g. ‘Rule of 20’) that are important for the management of more complicated hospitalized patients. Students will be expected to play a major role in case management (e.g. triage, client communication, admissions, discharges, diagnostics, procedures, daily care and assessments) under the guidance of a C.A.R.E. practitioner. Students who are particularly interested in a small animal internship

(whether at the C.A.R.E. Centre or otherwise) are encouraged to consider this rotation.

Travel and Accommodation:
Special arrangements are not applicable. Students will be expected to arrange their own transportation to Calgary, accommodations and meals in Calgary and daily transportation to the C.A.R.E. Centre.

Evaluation: A standard evaluation provided by the WCVM will be completed by the C.A.R.E. Centre practioner(s) that the students worked with primarily and returned by the deadline provided by WCVM. Feedback will be provided to the students throughout the rotation

Hours of work and expectations for on-call:
Students on this rotation will not be working a regular 8:00 am to 5:00 pm day. Shifts for students are mostly held during the afternoon and evening (typically 3:00 pm to 1:00 am) which is when higher volume and varied patient caseload is typically presented to the hospital. The rotation is scheduled Monday to Thursday for both weeks, but students are required to pick up one extra shift of their choice in the middle weekend (Friday, Saturday or Sunday). One or two days will be planned during regular business hours (i.e. 7am-5pm) to work alongside the criticalist. Further details on shifts and rounds times are provided to the students prior to the rotation starting.

* A student may take this rotation only once.

Clinical Pathology

ROTATION CODE:	CLP			
INSTRUCTORS:	Drs. R. Dickinson (coordinator), H. Burgess, M. Kerr, S. Myers, M. Meachem, L. Munasinghe and others (to be determined)			
DURATION:	2 weeks			
TIMING:	27 – 28	March 14, 2022 –	March 27, 2022	
	29 – 30	March 28, 2022	–	April 10, 2022
	31 – 32	April 11, 2022	–	April 24, 2022
STUDENT NUMBERS:	3 students per rotation			
PREREQUISITES:	Students who have completed VTPA 421 – Veterinary Cytology will be given priority for this course. If there are still openings will it be offered to students without VTPA 421.			
DESCRIPTIVE:	Students who complete the two week mandatory rotation in Diagnostic Pathology are eligible to take an elective two week rotation. These rotations will be available to three students per rotation who will assist the pathologist on duty. Three such rotations will be offered.			

* A student may take this rotation only once.

Dentistry

ROTATION CODE: DEN

INSTRUCTOR: Dr. C. Lowe

DURATION: 2 weeks

TIMING:

3 – 4	September 13, 2021	–	September 26, 2021
7 – 8	October 12, 2021	–	October 24, 2021
11 – 12	November 8, 2021	–	November 21, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
21 – 22	January 31, 2022	–	February 13, 2022
25 – 26	March 1, 2022	–	March 13, 2022
29 – 30	March 28, 2022	–	April 10, 2022

STUDENT NUMBERS: 3 students per rotation

DESCRIPTIVE: Students will be involved with all clinical dentistry cases seen during the two-week rotation, with one student being assigned as primary student on each case.

The objectives of this elective are to provide the student with an opportunity to enhance their clinical knowledge in dentistry and to develop their skills in performing oral examinations, communicating with clients, oral imaging and interpretation and dental surgical skills.

Rounds topics will be assigned to each student on the first day of the rotation. A short "client" friendly handout and informal presentation on the topic should be provided for each student and clinician. All students should be prepared on each topic as you will be asked questions regarding the topic covered.

Evaluations of students will be based on case management, preparation, knowledge, surgical skills, attitude, participation and rounds topics.

Agenda:
Morning rounds will be held daily except for Friday (the student is expected to attend the Friday morning seminars between 8-9am) in the Purina Dental Suite; where a student is expected to present on a dental related topic. Afternoon rounds will occur during clinic (consultation and surgery days) days. Each student will perform a full oral hygiene procedure on a dog or cat during this rotation. Laboratory sessions will encompass some if not all of the following procedures; extractions, periodontal flaps, dentinal sealants, uncomplicated restorations, tape muzzles and partial pulpotomies. This is variable and is subject to change at the instructors' discretion.

* A student may take this rotation only once.

DERMATOLOGY - WCVM

ROTATION CODE: DERMINT

INSTRUCTOR: Dr. A. Foster

DURATION: 2 weeks

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
5 – 6	September 27, 2021	–	October 11, 2021
9 – 10	October 25, 2021	–	November 7, 2021
13 – 14	November 22, 2021	–	December 5, 2021
17 – 18	January 4, 2022	–	January 16, 2022
21 – 22	January 31, 2022	–	February 13, 2022
25 – 26	March 1, 2022	–	March 13, 2022
29 – 30	March 28, 2022	-	April 10, 2022

STUDENT NUMBERS: 4 students per rotation.

DESCRIPTIVE:

This is a clinical dermatology rotation where referral, small animal and equine dermatology cases are examined by each of the students on the rotation. Clinical rounds may be held daily with discussion of cases seen during the day.

Evaluations will be based on performance, clinical duties and participation in rounds.

After hours and weekend duty is not anticipated, but will be required if needed.

* A student may take this rotation only once.

Diagnostic Pathology
(Necropsy & Clinical Pathology)

ROTATION CODE: LD ***** Mandatory rotation for all students.

INSTRUCTORS: Necropsy: Drs. E. Aburto, A. Allen, A. Al-Dissi, S. Detmer, H. Philibert, E. Simko, B. Wobeser and others (to be determined)
Clinical Pathology: Drs. H. Burgess, R. Dickinson, M. Kerr, M. Meachem, L. Munasinghe and others (to be determined)

DURATION: 2 weeks

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022

STUDENT NUMBERS: Maximum of 7 students per rotation
Necropsy (1 week) followed by Clinical Pathology (1 week)

DESCRIPTIVE: Necropsy
The necropsy portion of the rotation is devoted to the post-mortem examinations of a range of animal species submitted through Prairie Diagnostic Services, Inc. which are done under the supervision of a faculty member or senior resident. Students gain experience in necropsy technique, acting on necropsy findings in order to make diagnoses, maintaining personal safety and biosecurity, and writing and presenting concise reports of the findings. Emphasis is placed on the recognition and interpretation of gross lesions, consideration of differential diagnoses, and how to best utilize services offered by a diagnostic laboratory to arrive at a diagnosis. Portions of each day will be used to discuss cases, review selected topics in veterinary pathology, or attend departmental seminars.

Clinical Pathology

The clinical pathology portion of the rotation consists of structured sessions and independent study. Students will evaluate current cases in hematology, chemistry and cytology and discuss laboratory data from cases provided in hand-out or electronic format. Bone marrow indications, collection methods and basis of interpretation will be discussed. Students are expected to integrate laboratory and necropsy data as part of the medical and surgical problem solving experience.

All students are required to attend the Anatomic Pathology seminars at 4:30 p.m. on days that they are conducted and students may be asked to discuss relevant laboratory data. Also, students are required to attend other seminars presented in the department of veterinary pathology.

*A student may take this rotation only once.

Ecosystem Health

PENDING U OF MONTREAL REGULATIONS AT THE TIME OF OFFERING

INSTRUCTORS:	Dr. T. Epp (hosted by FMV, Montreal, Canada)
DURATION:	2 weeks
TIMING:	Weeks 3-4 September 13, 2021 – September 26, 2021
STUDENT NUMBERS:	4 students from WCVM *
DESCRIPTIVE:	The Ecosystem Health Elective is a two-week course for senior veterinary students coming from the four veterinary colleges across Canada. In addition, with funding supplied by the University of Guelph, 2 international student placements may be filled as well. From this course, students should expect to broaden their understanding of the interactions between animals, the environment and humans. The goals of this course are to enable veterinarians to explain concepts of ecosystem approaches to health, to investigate and propose resolutions to animal and human disease problems that have environmental implications, and to describe, using specific examples, the relationship between animal and human health issues and the environment in which they are situated.
STRATEGY:	The Ecosystem Health course emphasizes field-based disease investigations, the solutions of which may include ethical, social and legal concerns. The Faculté de médecine vétérinaire (FMV), University of Montréal (St. Hyacinthe, Quebec) will host this year's rotation. Case studies may include agroecosystems, watersheds, and wildlife/domestic animal/human health interactions related to ecosystem health. The course details are still under development. * Ecosystem Health portion of this offering of the course has a limit of four students from each of the Canadian Veterinary Colleges. **Students must be ready to stay at whatever accommodations that the other province students (PEI, UCVM, Guelph & St. Hyacinthe) will be at during their time in Quebec. Travel expenses to get to Quebec are the responsibility of each student; travel will be such that the student is ready to participate in the start of the Quebec course Monday morning. There is a course fee of $200.00 which will help to cover all expenses with in-province travel (Quebec), accommodations, food, etc. during the rotation.**

Elders Equine - Manitoba

ROTATION CODE: EEM, EEM1, EEM2

INSTRUCTORS: Dr. Chris Bell

DURATION: 2 weeks

TIMING:

S1-S2	April 26, 2021	–	May 9, 2021
S17-S18	August 16, 2021	–	August 29, 2021
1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2018
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	-	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: One student per rotation.

PREREQUISITE: Completion of one Equine Field Service rotation before taking the rotation.

DESCRIPTIVE: This rotation is best suited for a student with a keen interest in equine practice and that has a great deal of comfort working around horses.

Elders Equine is a full service equine private practice including special interest in surgery, lameness and sports medicine. Our practice consists of both ambulatory and hospital case load. We have 4 veterinarians on staff including a surgeon and anesthesiologist.

Our referral caseload catchment area includes southern Saskatchewan, all of Manitoba and northern Ontario. Our primary general caseload includes lameness, sports medicine, routine teeth floating, vaccinations and herd health assessments as well as emergency on call care. We are equipped with digital radiography, ultrasound and endoscopy as well as in house lab including blood gas monitoring and serum amyloid A analysis. Our regenerative medicine caseload includes platelet rich plasma therapy, stem cell therapy, shockwave therapy and IRAP therapy as well as

comprehensive rehabilitation programs including treadmill exercise and kinesiology taping techniques. We have a board certified equine surgeon and perform both standing procedures and general anesthesia procedures with our staff anesthesiologist. We are the only equine specific practice with a hospital and only equine referral surgical practice in the Province of Manitoba.

Brief Description of the rotation:

- General equine practice with additional equine surgical, sports medicine, internal medicine and thoroughbred racetrack caseload. Student will gain experience with in clinic and ambulatory cases as well as exposure to the thoroughbred racetrack clinical environment (April thru early Sept). The student will be exposed to the use of digital xray, ultrasound, endoscopy, shockwave therapy, advanced regenerative medicine (PRP, Stem cells, IRAP). This rotation is best suited for a student with a keen interest in equine practice. The student may also be exposed to routine shedrow procedures such as endoscopy, digital xrays, ultrasound of tendon injuries as well as race day and pre-race medication with emphasis on ethical use of medications in racing. The student will also be exposed to all general practice caseload and surgical cases that present to the practice including after hours emergencies.

Housing and Transportation: Must be provided by student

Travel: Must be provided by student

Contact Information:
Dr. Chris Bell BSc, DVM, MVetSc
Diplomate of the American College of Veterinary Surgeons
Equine Surgery, Lameness and Sports Medicine
Senior Surgeon and Practice Owner
Elders Equine Veterinary Service
Winnipeg, Manitoba, Canada
204-864-2888 (o)
Chris.bell@eldersequineclinic.com

* A student may take this rotation only once

Emergency & Critical Care

ROTATION CODE: ECC, ECCS9

INSTRUCTORS: Dr. Jen Loewen, DVM, DACVECC
Interns who are on rotation at that time
ER doctors who are working at this time

DURATION: 2 weeks

TIMING: S1-2(April 26- May 9th 2021)
S17-18 (August 16-29 2021)

STUDENT NUMBERS: 8 students per rotation

DESCRIPTIVE: This course will contain both clinic work as well as didactic learning. Lectures will be case based and will focus on emergency cases. There may be the opportunity to perform the in-person CPR RECOVER course if there is enough student interest and pending covid restrictions(note: cost associated with course is students' responsibility).

The students will be responsible for the day-to-day assessment and treatment of patients admitted to enable the student to apply the principles of history taking, client communication, clinical examination, creating a list of differential diagnoses and diagnostic plan, therapy and disease prevention in a supervised clinical setting. This will also allow the student to become familiar with the costs associated with treatment and hospitalization

Students should expect to work during the daytime and evenings on week days and weekends with the possibility for overnight responsibilities. The specific time table will be developed and in place once enrolment is known.

Objectives :
To provide the 4th year student with the basic skills and understanding in the management of commonly encountered emergency situations.
To help build confidence in the appropriate approach to emergency cases.
To introduce the complexities involved in the management of critically ill patients.
To discuss the pathophysiology behind the diseases presented in the emergency and critically ill setting.

Specific goals to complete (discussion base with possibility of performing):

- Techniques for cardiopulmonary resuscitation (CPR)
- Utilization of the ultrasound in the emergency room
- Thoracocentesis (diagnostic and therapeutic)
- Abdominocentesis (diagnostic and therapeutic)
- Approach to chest tube placement
- Approach to pericardiocentesis
- Fluid therapy in emergency and critical care

- ◆Cystalloids ◆Synthetic colloids ◆Natural colloids
- Blood transfusions
- Pain control
- Nutritional support with emphasis on tube placement techniques
- Practical management of critical patients (ie. application of constant rate infusions, oxygen delivery, etc.)

* A student may take this rotation only once.

Equine Dentistry

ROTATION CODE:	EQD
INSTRUCTOR:	Dr. Michelle Husulak, Dr. James Carmalt, Dr. Nora Chavarria
DURATION:	2 weeks
TIMING:	Weeks 21 – 22 January 31, 2022 – February 13, 2022
STUDENT NUMBERS:	4-8 students per rotation
PREREQUISITE:	Students must have participated in the Equine Health Management and Clinical Techniques elective (VLAC 495) in year 3 of the DVM program and be scheduled in Large Animal Surgery.
DESCRIPTIVE:	This rotation will combine didactic, laboratory and clinical learning. Lectures will focus on dental anatomy and masticatory physiology and pathology, routine and advanced dental procedures as well as advanced imaging and other diagnostic modalities. Laboratory sessions will utilize cadaver heads and simulations for all students to gain basic competence with skills in equine dentistry. Students will then progress to working on live horses in the clinical setting. Both WCVM teaching horses and client owned horses will be included, and students can expect to gain considerable experience with routine dental examinations and procedures, including imaging in the live animal. A specific timetable will be developed and in place once enrollment is known.

Equine Lameness Rotation

ROTATION CODE: ELQ

INSTRUCTORS: Dr. J. Bracamonte

DURATION: 2 weeks

TIMING: 5 – 6 September 27, 2021 – October 11, 2021

STUDENT NUMBERS: 6 students per rotation

COREQUISITE: Students must be scheduled in Large Animal Surgery. A preference will be given to students who have taken the VLAC 494 Equine Surgery Elective

DESCRIPTIVE: This 2-week elective rotation will be offered at the WCVM, using the Equine Performance Center and different assigned areas for specific hands-on laboratories. This rotation is focused on lameness in the equine athlete. The goal of the Equine Lameness Rotation is to provide WCVM Students knowledge and techniques in the continually evolving area of equine lameness and to better prepare students to understand and manage lameness conditions in horses. This rotation aims to help prepare students to diagnose commonly causing lameness that are frequently encountered in a sports medicine private practice. The rotation will consist of a series of half day education comprising of lectures, daily presentations (clinical cases, videos, anatomy review, diagnostic imaging focused on a certain area of the limb) followed by hands-on labs to complete the day. The lectures and presentations (in addition to labs) will be given in the first week to provide students the knowledge to work up lameness on their own. This rotation is heavily focused on providing a hands-on experience and therefore, hands-on will be offered since Day 1 of the rotation. The hands-on portion of the Equine Lameness rotation will provide students with invaluable experience on being able to fully work up a lameness cases (teaching horses and client-owned horses) at their own pace; to perform appropriate diagnostic local anesthesia (nerve/intra-articular blocks), diagnostic imaging techniques and gain experience interpreting imaging areas discussed in lectures and throughout the clinical case presentations.

The objective of this rotation is to provide a complete and thorough overview of Equine Lameness which will include how to perform a lameness examination, biomechanics of lameness, ridden lameness, behaviour assessments, local anesthesia,

diagnostic imaging techniques commonly used in equine lameness, understanding radiographic projections and views, lameness associated to the foot, fetlock, metacarpus, carpus, hock and stifle. In addition, Prepurchase Exams will be covered in this rotation to further help Students with this common practice that is performed on equine athletes. Moreover, Students will be exposed to a wide variety of treatment types, including conventional, regenerative, and alternative treatment options.

No emergency or weekend duty will be expected of the students. In addition, if individual patients require ongoing care in-hospital (or in-pen), it is expected that the students provide this care with clinician supervision.

Equine Theriogenology

ROTATION CODE:	SUTH1, SUTH2, SUTH3			
INSTRUCTORS:	Drs. C. Card and S. Manning			
DURATION:	2 week rotations			
TIMING:	S1 – 2	April 26, 2021	-	May 9, 2021
	S3 – 4	May 10, 2021	-	May 24, 2021
	S5 – 6	May 25, 2021	-	June 6, 2021
STUDENT NUMBERS:	4 students per rotation			

DESCRIPTIVE: Students will be involved in all aspects of management on Veterinary Medical Centre equine theriogenology patients including mares, foals and stallions. This is a busy time of year for the equine theriogenology service with a broad range of breeding and foaling activities. Students will also have access to teaching horses to gain more practical experience. This provides an excellent exposure to the types of cases commonly presented to both a first opinion practice and referral hospital. Rounds or educational activities are held each day with faculty. Students may have some exposure to other species. Students will be busy during the day and will participate equally in after-hours night duty including foaling monitoring and reproductive management.

* A student may take this rotation only once.

Field Service - Equine

ROTATION CODE: FSEQ

INSTRUCTORS: Dr. Dr. M. Husulak

DURATION: 2 weeks

TIMING:

S1 – 2	April 26, 2021		May 9, 2021
S3 – 4	May 10, 2021		May 24, 2021
S5 – 6	May 25, 2021		June 6, 2021
1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	-	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 2 - 4 students per rotation

DESCRIPTIVE: General Equine Practice. Emphasis will vary depending on season but will include English and western performance horses, pleasure horses, broodmare work, thoroughbred racetrack work and preventative medicine and herd health. Student participation in out of hours work and rounds is mandatory. There will be on-call responsibilities, which are arranged by the students on the rotation.

If you live out of town and it will take more than 15 minutes to arrive at the WCVM, the student is expected to stay overnight in the Hospital Residence.

* Students may repeat this rotation.

Field Service - Ruminant

ROTATION CODE: FS

INSTRUCTORS: Drs. N. Erickson, J. Campbell, F. Schumann, K. Gabadage

DURATION: 2 weeks

TIMING:

S1-2	April 26, 2021	–	May 9, 2021
1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 2 - 3 students per rotation, depending on the time of year.

DESCRIPTIVE: This course is designed to give students an opportunity to learn to make rational decisions relative to the management and prevention of diseases in ruminants. Students will also learn to handle restrain and examine food animals under field conditions. This course will assist students to develop observational and communicative skills to collect information and to understand different aspects of the beef and dairy industries.

* Students may repeat this rotation.

Laboratory Animal Medicine

ROTATION CODE: LAB

INSTRUCTORS: Dr. K. Swekla (coordinator), Dr. B. Gray, Dr. M. Timonin

DURATION: 2 weeks

TIMING:

S1 – 2	April 27, 2020 -	–	May 10, 2020
S3 – 4	May 11, 2020	–	May 24, 2020
S5 – 6	May 25, 2020	–	June 7, 2020
S7 – 8	June 8, 2020	–	June 21, 2020
S9 – 10	June 22, 2020	–	July 5, 2020
1 – 2	August 31, 2020	–	September 13, 2020
3 – 4	September 14, 2020	–	September 27, 2020
5 – 6	September 28, 2020	–	October 12, 2020
7 – 8	October 13, 2020	–	October 25, 2020
9 – 10	October 26, 2020	–	November 8, 2020
11 – 12	November 9, 2020	–	November 22, 2020
13 – 14	November 23, 2020	–	December 6, 2020
17 – 18	January 4, 2021	–	January 17, 2021
19 – 20	January 18, 2021	–	January 31, 2021
21 – 22	February 1, 2021	–	February 15, 2021
23 – 24	February 16, 2021	–	February 26 (6PM), 2021
25 – 26	March 2, 2021	–	March 14, 2021
27 – 28	March 15, 2021	–	March 28, 2021
29 – 30	March 29, 2021	–	April 11, 2021
31 – 32	April 12, 2021	–	April 25, 2021

STUDENT NUMBERS: 1 student per rotation

DESCRIPTIVE: This rotation provides an opportunity to gain experience, skills, and knowledge in laboratory animal medicine. Students will develop the following skills and experience:

- Expand clinical skills through participation in clinical rounds, journal club, and presentation of cases to senior staff
- Broaden knowledge of basic husbandry, biology, and diseases of vertebrate species used in teaching, research, and testing at the University of Saskatchewan, which are variable but can include swine, sheep, goats, cattle, horses, dogs, cats, rodents, rabbits, various avian and aquatic species in agricultural, biomedical, behavioural, and wildlife settings.

- Become familiar with basic pathology of common lab animal diseases
- Observe and participate in animal surgeries and anesthesia
- Become familiar with rodent sentinel health programs, rodent necropsy, quarantine, rodent shipping and receiving, vendor health surveillance and facility quality assurance measurements
- Learn basic principles of managing large laboratory animal colonies
- Become familiar with the regulations involved for animals used in research, testing, and teaching through discussions with veterinarians and attendance at Usask Animal Care Committee meetings
- Learn basic principles of developing Humane Intervention Points and Experimental Endpoints
- Participate in animal use protocol evaluation and gain exposure to research techniques pertaining to animal use
- Become familiar with Canadian Council of Animal Care standards, animal transport, import/export, and other applicable regulations and guidelines.
- Learn the fundamental principles of biohazard and occupational safety
- Become familiar with resources related to laboratory animal medicine including publications, websites, organizations, and continuing education

Students will be expected to participate in weekly rounds, seminar series, and journal club rotations. Specific didactic aspects include:

- Weekly veterinary meetings
- Present one journal club article
- Provide a presentation on a laboratory animal research topic of their choice
- Assist with training seminars offered by UACC Clinical Veterinarians
- Complete online training module, including the “Basic Module” and additional online training in at least one species of interest.

* A student may take this rotation only once.

Large Animal Imaging

ROTATION CODE:	LMI
INSTRUCTORS:	Dr. K. Tryon
DURATION:	2 weeks
TIMING:	Weeks 19 – 20 January 17, 2021– January 30, 2021
STUDENT NUMBERS:	8 students per rotation
COREQUISITE:	Students must be scheduled in Large Animal Surgery during their clinical year.
DESCRIPTIVE:	Large Animal Imaging rotation is expected to offer up to 3 days spent on report ultrasound of the bovine reproductive tract, and 1-2 days of equine reproductive imaging. The remainder of the time will be spent with Equine Radiographic positioning and image acquisition, interpretation of equine radiographs and advanced imaging modalities. There may be opportunities for tendon U/S and abdomen/thorax US.

Large Animal Medicine

ROTATION CODE: LAM

INSTRUCTORS: Drs. T. Afonso, J. Montgomery, F. Uehlinger

DURATION: 2 weeks

TIMING:

S1 – 2	April 26, 2021		May 9, 2021
S3 – 4	May 10, 2021		May 24, 2021
S5 – 6	May 25, 2021		June 6, 2021
1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 2 - 6 students per rotation

DESCRIPTIVE: To enable the student to apply the principles of history taking, client communication, clinical examination, creating a list of differential diagnoses and diagnostic plan, therapy and disease prevention in a supervised clinical setting. To become familiar with the costs associated with treatment and hospitalization.

To improve the students' skills and confidence in handling and restraining large animals and to develop the technical skills required to obtain samples, perform diagnostic procedures, and to treat horses and food animals.

To allow the students to be responsible for the day-to-day assessment and treatment of patients admitted to the Large Animal Clinic during regular hours and after hours. Through this experience the student will

learn about the progression and prognosis of a disease and how that disease responds to therapy.

To meet these objectives, the students must have a complete understanding of the cases, including the basis for each treatment and management procedure that is employed. This means not only examining the cases carefully but also consulting notes, textbooks, the literature, and relevant veterinary databases.

Group discussions are held daily in the morning on cases admitted to the Large Animal Clinic, or on topics of interest. In addition, small group teaching is held to discuss the broader concepts of the economic impact of certain diseases, and disease control and prevention.

Students are expected to support the after-hours and weekend service incl. staying in the residence overnight on a rotational basis.

The evaluation of student performance will be based upon individual performance in the clinic, in rounds and upon a presentation to the large animal medicine group that may be given at the end of the rotation.

* Students may repeat this rotation. We would not recommend (except in exceptional circumstances) that a student take more than four weeks of this rotation.

Large Animal Surgery 2

ROTATION CODE: LAS

INSTRUCTORS: Drs. S. Barber, J. Bracamonte, J. Carmalt, K. Thomas and D. Wilson

DURATION: 2 week rotations

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2018
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	-	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 3 - 6 students per rotation

DESCRIPTIVE: All large animal surgery rotations will cover the basic essentials of large animal surgery. will have access to the Veterinary Medical Centre patients. As well, supplemental material will be provided in the form of rounds and small group seminars to round out any deficiencies resulting from the seasonality of the caseload. Horse limbs will be available for dissection.

The fall caseload is predominantly equine with a good cross-section of case material being presented. Case material is lightest in mid-winter but adequate for teaching. One can expect a rising equine caseload during the months of March and April. Small group teaching rounds, cadavers and donation surgeries help strengthen the rotation. This rotation is designed to give the students a hands-on experience when cases allow.

Evaluation will be based on participation, performance, interest and comprehension of the material.

* Students may repeat this rotation.

Livestock and Forage Centre of Excellence Calving Rotation

ROTATION CODE:	LFCE			
INSTRUCTORS:	Dr. C. Palmer, Associate Director LFCE			
DURATION:	2 week rotations			
TIMING:	29 – 30	March 28, 2022	–	April 10, 2022
	31 – 32	April 11, 2022	–	April 24, 2022
STUDENT NUMBERS:	2 - 6 students per rotation			
COREQUISITE:	Students must be scheduled in Large Animal Medicine.			

DESCRIPTIVE: *This rotation contains extended days and out of hours requirements which are essential components of the clinical experience.*

This rotation takes place at the Livestock and Forage Centre of Excellence Goodale Farm and the WCVM. The experience will centre around the management of the heifer calving group consisting of approximately 100 heifers. Forty to 60% of these heifers will be pregnant to a single Fixed-time Artificial Insemination (FTAI) occurring over a one to two day period which will mean there are a number of calvings over 10 days to two weeks, however, students should prepare for a very intense three or four days when most of these calvings will occur. A concomitant intense peak in number of calvings will also occur when a number of the heifers return to estrus following a failure to conceive to the FTAI. Students will work with LFCE and WCVM veterinarians and staff in monitoring the herd, and providing obstetrical, medical and surgical treatment when needed. Particular attention will need to be paid to first parity animals to ensure that mothering has occurred properly and that an adequate quantity of colostrum has been consumed in a timely fashion. By the end of this rotation students will be expected to be able to recognize the three stages of parturition and to determine when intervention is necessary, and how to intervene. Students should not expect a large number of naturally occurring dystocias; however, instruction on obstetrical intervention and fetotomy will be given at the beginning of the rotation using simulation models. The rotation will also include daily rounds, wet labs and opportunities for engagement with LFCE researchers, grad students and staff as well as industry stakeholders. Students taking this rotation must be accepting of flexible scheduling and last minute changes – when times are slow there will be more rounds and time for discussion; when it is busy there will be long days spent tending to the animals. A positive attitude and a willingness to work as a team is a must for this rotation. At all times be respectful to all of those you work with and you should expect the same in return.

Night work is to be expected; however, it will share on an equitable basis. Students will be paired with an LFCE staff member for after-hours checks. This rotation will be considered eligible for the large animal core requirement.

This rotation is intended for those interested in pursuing a career in large or mixed animal practice who lack experience calving cattle.

* A student may take this rotation only once.

Livestock Veterinary Services – Dairy Rotation

ROTATION CODE:	LVS
INSTRUCTOR:	Dr. Kelli Pinner
DURATION:	2 weeks
TIMING:	pre-draft application procedure
STUDENT NUMBERS:	1 student per rotation
DESCRIPTION:	Livestock Veterinary Services is a progressive 5 veterinarian and 2 technician ambulatory practice located in Picture Butte, Alberta. Our services are primarily dairy preventative medicine focused and cover a large geographical area. Please visit our website for further information about our practice: www.livestockvet.ca During the rotation students will learn the principles of dairy herd health. The rotation involves a large volume of preventive herd medicine work including reproduction, population medicine, consulting, and record analysis using Dairy Comp 305. Students will also be exposed to individual animal health needs and in most cases bovine GI surgery.
PREPARATION:	Please review your bovine reproductive physiology, population medicine and any herd monitoring lectures and notes you have received. Dairy Comp 305 is used frequently for herd analysis. An introduction to this program prior to the start of this rotation is an asset but is not required. Bring your own stethoscope and thermometer for physical exams. Please be prepared to complete a full physical exam on a dairy cow (review your notes). Please bring as many pairs of coveralls as possible (minimum of 4). Biosecurity is important to us and our producers. Hours are variable depending on the caseload and may begin before 7am or extend past 6pm on certain days. Students are be expected to follow the practitioners' regular hours. Students will be given notice 1 week prior to the start of rotation on where the starting time and location will be for their first day. They will be given notice of the start time and tentative plan for each subsequent day of the rotation from there on. This is done in order to give students the most enriched day possible, as well as to provide for a variety of cases and veterinarians to learn from. On call is not required, but it is

recommended that students make themselves available every other weekday night in the event of a bovine emergency.

Accommodations can be made available by clinic staff hosting students in their homes. Please contact our practice manager for details on cost, location, etc. at admin@livestockvet.ca

Manitoba's Office of the Chief Veterinarian– Animal Welfare (Winnipeg)

ROTATION CODE: MPL

INSTRUCTORS: Dr. E. Omololu and Dr. E. Robertson

DURATION: 2 weeks

TIMING: Weeks S5-6 May 25, 2021 - June 6, 2021

STUDENT NUMBERS: 2 students per rotation

DESCRIPTIVE:

Introduction:

The Office of the Chief Veterinarian (CVO) with Manitoba Agriculture operates an Animal Welfare Program to enforce Manitoba's domestic animal welfare legislation, *The Animal Care Act.* This program is unique in Canada as other provinces enforce animal welfare legislation primarily through privately funded Humane Societies or Societies for the Prevention of Cruelty to Animals (SPCAs). *The Animal Care Act* has been referred to as one of the strongest animal welfare legislations in the country. The Minister of Agriculture and the CVO currently have approximately 100 animal protection officers (APOs) appointed throughout the province to enforce *The Animal Care Act;* these APOs are composed of veterinarians, animal health technologists, current/retired provincial government employees, animal control officers, retired/active police officers, and employees of the Winnipeg Humane Society (WHS). This Act protects all domestic species of animals in Manitoba including companion animals, livestock, and non-domestic species. This Act requires veterinarians to report concerns about potential animal abuse or neglect.

During the course of this externship students will receive broad exposure to issues related to animal welfare with an emphasis on the role of public service veterinarians in this field. Students should gain an understanding of this role and be able to demonstrate their comprehension via various assignments and a special topic project presentation.

Student Evaluation:

Final student grade will be determined accordingly: Participation – 50%
Assignments – 30%
Special Topics Presentation: 20%

Objectives of Rotation:

- **Regulation and policy:** Understanding the process involved in development of animal welfare related policy and regulation; understanding the relevance and application of these documents in enforcement of animal welfare legislation

- **Understanding *The Animal Care Act*:** The requirements of caregivers to provide adequate care to their animals, determining compliance under *The Animal Care Act*, authority of APOs to pursue corrective action to relieve/prevent animal distress, powers of investigation, penalties.
- **Inspections:** Evaluating complaints to determine relevance to *The Act*, conducting inspections and collecting information to determine compliance under *The Act*, authority to pursue corrective action to achieve compliance or relieve animal distress.
- **Investigations:** Conducting investigations and collecting evidence to support violation of *The Act*, formulating court briefs and providing witness testimony to support charges under *The Act*.
- **Relationships with other animal welfare stakeholders:** Understanding the roles of other animal welfare/rescue agencies in supporting animal welfare enforcement.

Rotation Description:

- Policy Development – students will be asked to write a balanced policy discussion document regarding an animal welfare issue and present this to a stakeholder panel for review.
- Demonstrate report writing and evidence collection skills, demonstrate an understanding of local animal welfare policy/legislation – students will be asked to submit reports relevant to inspections/investigations they participate in. These reports should demonstrate an understanding of inspection techniques, documentation of appropriate information to determine compliance under *The Act*, and collection of appropriate evidence to support allegations of animal abuse/neglect under *The Act*.
- Tour of CVO office and introduction to employees administering the humane inspection program.
- Attend animal protection officer training and/or continuing education session relevant to animal welfare.
- Forensic pathology, investigation techniques – introduction to veterinary pathologists and staff in veterinary diagnostic lab, tour of veterinary diagnostic lab, instruction in conducting post mortems and collecting/processing samples to determine compliance and support charges under *The Act*.
- Humane treatment of zoo species – evaluate animal care and husbandry at the Winnipeg zoo in relation to methods of ensuring emotional and physical needs of animals are met to ensure health and well being.
- Humane treatment of livestock animals from farm to slaughter - Attending livestock processing plants, assembly yards, and auction marts to evaluate humane animal handling techniques and protocols
- Inspections

    - Attending humane inspections in Winnipeg with APOs at the Winnipeg Humane Society (WHS)
    - Attending humane inspections in rural Manitoba with APOs
    - Attending inspections specific to licensing of kennels, breeders, and companion animal retail stores
    - Attending inspections specific to livestock auction marts and assembly yards
    - An effort will be made to expose students to common complaints including animal hoarding, starvation, and complaints specific to animals being housed in cold climates. An effort will also be made to involve students in cases in the event that animals are deemed to be in distress; or if corrective action such as seizures or surrenders are executed to relieve distress.
- Introduction to other animal welfare stakeholders:
    - Tour of the WHS – understanding the role of animal shelters in supporting the CVO in the event that animals are surrendered to or seized by the CVO. This will include documenting identification of animals admitted to the WHS by the CVO, medical evaluation specific to concerns of animal abuse/neglect, providing ongoing care to animals on behalf of the CVO.

Attire/Equipment Required

Winter weather in Manitoba is similar to Saskatchewan, cold and unpredictable.

Students should bring:

- Clothes to conduct inspections in cold weather outdoors for extended periods that can be sanitized if contaminated including: Coveralls, boots, toques, mitts, scarves, warm coats.
    - Inspections may include exposure to animals carrying infectious/zoonotic/contagious disease, so clothes worn should be safe to be cleaned/sanitized appropriately to prevent spread of disease.
- Lab coat and scrubs
- Business casual attire when in the office
- Camera
- Laptop computer
- Cell phone

Assignments:

1. **Special Topics Project** (30 min. presentation + 15 min. for discussion per student)
    - This assignment is comprised of a Power Point and verbal presentation made to a panel of Animal Welfare professionals. The students may select one of the Animal Welfare Special Topics provided or may develop their own (must be approved).

- This presentation must include a brief yet thorough review of the issue including the various positions of significant stakeholders, potential resolutions to the issue and a recommend path forward along with the justification for these recommendations.

2. **Humane Inspection Report**
   - Students will participate in a number of Humane Inspections throughout the first week. Each student is to select one of these inspections and to submit a completed Humane Inspection Report

3. **Animal Welfare Case Management**
   - An animal welfare case will be presented to the students. Each student is to write a case summary describing how they would see the case to completion outlining the justification for their decisions using *The Animal Care Act* and Regulations of Manitoba.

4. **Animal Welfare Policy Advisory Note – Tour confirmation pending**
   - Students will attend a tour of a livestock handling/processing facility and be involved in a discussion on the facility as it relates to a current animal welfare issue. They will then write a draft Advisory Note regarding this issue for the Minister following a template provided.
   - Students will attend a tour/inspection of a boarding kennel and an animal rescue/shelter – due to budgeting constraints enforcement of existing licensing provisions under *The Animal Care Act* have been minimal, and the value of the licensing program is being challenged. You will then be asked to write a draft Advisory Note for the Minister regarding this issue. Be prepared to discuss the concerns of stakeholders in regards to licensing under the Act, the pros/cons of the licensing program, and your recommendations whether to maintain the licensing component of this Act.

Hours of Work

- In general, hours of operation at the CVO office range between 8:00am to 5:30pm depending on the activity involved. Our office is located at 545 University Crescent, Winnipeg, Manitoba, R3T 5S6; we are situated on the University of Manitoba Campus at the south end of Winnipeg.
- In the event of an animal emergency such as a seizure or surrender, students may be required to work earlier or later than the hours posted above.

Travel and Accommodations

If travel is required during this rotation every effort will be made to accommodate students with existing means of transport available to the CVO.

Students will be responsible for providing their own accommodations and daily transportation to and from our office, for the duration of this rotation.

* A student may take this rotation only once.

CONTACTS: Dr. Enoch Omololu @ (204) 945-8839 or enoch.omololu@gov.mb.ca

Manitoba Swine

ROTATION CODE: MSW

COORDINATOR: Dr. J. Harding
SUPERVISOR: Dr. B. Tully

DURATION: 2 weeks

TIMING:

Weeks 11-12	November 8-21, 2021
Weeks 15-16	December 6-19, 2021
Weeks 17-18	January 4-16, 2022 (Banff Pork Seminar is Jan 5-6, 2022)
Weeks 25-26	March 1-13, 2022 (AASV is Feb 26-Mar 1, 2022)

STUDENT NUMBERS: 1 student per rotation

PREREQUISITES: Enrollment in the Swine Practice Rotation unless permission from Dr. Harding is granted. Cases will be assessed on a case-by-case basis.

DESCRIPTION: This rotation is designed to build on the Swine Practice rotation, by providing extensive clinical training by specialist swine veterinarians. This externship is geared for those students who have taken the Swine Practice rotation, or those who have past experience in the swine production or the swine veterinary profession. During the externship students will accompany a number of swine veterinarians on their daily herd health calls, providing exposure to a variety of swine production facilities and activities fundamental to swine veterinary practice.

Students will travel to Steinbach Manitoba, about one hour southeast of Winnipeg for this externship. Appropriate lodging must be arranged with assistance of the on-site supervisor. Students are responsible for the costs of travel, accommodation and food, but are encouraged to apply to the American Association of Swine Veterinarians for financial assistance which is available for student externships.

The daily roster will be scheduled by the externship supervisor, and will involve a rotation amongst specialist swine veterinarians from the following swine businesses:

- Swine Health Professionals – a multi-person swine veterinary practice Contact: Dr. Blaine Tully
- Maple Leaf Agri-Foods- the pork production division of Maple Leaf Foods. Contact: Dr. Brad Lage
- HyLife Ltd – Canada's largest swine production company. Contact: Dr. Karine Talbot
- The Progressive Group – a pork production management company. Contact: Dr. Tony Nikkel

There will be strong emphasis on swine production, preventative medicine and quality assurance. Daily discussions may include but are not necessarily limited to: disease pathogenesis, expression,

diagnostics, treatment and prevention; biosecurity; animal welfare; Canadian Porke Excellence (CPE) training and validation; CFIA export certification; semen production; swine production, nutrition and housing. The rotation may include weekend and evening sessions.

Those interested in selecting this externship are strongly recommended to talk to Dr. Harding prior to the draft. Only students with a sincere interest in swine medicine and production should select this elective.

* A student may take this rotation only once.

Maple Creek Veterinary Services – Bovine Obstetrics

ROTATION CODE: MPO

INSTRUCTORS: Dr. K. Wasilow

DURATION: 2 weeks

TIMING: pre-draft application procedure
29 – 30 March 28, 2022 - April 10, 2022
31 – 32 April 11, 2022–April 24, 2022

STUDENT NUMBERS: 1 – 2 students per rotation

DESCRIPTIVE: MCVS is a rural mixed practice with a strong beef cow-calf caseload. We serve an abundance of commercial beef producers and a small number of purebred breeders. During the chosen weeks of your rotation we will be busy with bovine obstetrics and bull breeding soundness evaluations. We will multiple veterinarians out testing bulls daily while remaining veterinarians cover obstetrical and medical cases.

Primary objectives:

* Obstetrics skills and post-partum management (prolapses, retained placenta, mastitis). The majority of obstetrical cases will be transported to the clinic although there may be some farm calls.
* Surgical skills on C-section cases
* Breeding soundness exams on herd bulls both in the clinic and on the farm. (students will spend time palpating, measuring, collecting and reading slides)

For a complete experience student are expected to be available for after-hours calls.

Secondary objectives: to participate in other aspects of the mixed practice including bovine, equine and small animal caseload and emergency medicine.

2-3 veterinarians will supervise your experience. Students are expected bring clothing suitable for working outside the clinic in cold and wet weather.

Housing: Room and board will be provided at a charge of $250 per two weeks. Laundry and kitchen facilities available. You will be responsible for most of your meals, but may be provided some meals with the family of the staff member you are staying with. You will need to bring a lunch on working days in case not in clinic. You will be notified if meals will be provided at specific locations.

Maple Creek Veterinary Services – Beef Pregnancy Testing

ROTATION CODE: MPB

INSTRUCTORS: Dr. K. Wasilow

DURATION: 2 weeks

TIMING: pre-draft application procedure

9 – 10 October 25, 2021–November 7, 2021

13-14 November 22, 2021- December 5, 2021

STUDENT NUMBERS: 1 student per rotation

DESCRIPTIVE: MCVS is a rural mixed practice with a strong beef cow-calf caseload. We serve an abundance of commercial beef producers and a small number of purebred breeders. During the chosen weeks of your rotation we have multiple veterinarians out pregnancy testing every day. Our staff veterinarians will average 800-1600 preg tests weekly during these periods and we anticipate a satisfactory caseload.

Primary objectives will focus on pregnancy testing and preventive medicine:

- Ultrasound image evaluation and familiarity with equipment
- Palpation skills
- Exposure to a variety of operations, handling systems, breeds of cattle and routine management procedures (pour on, tagging, vaccination, Client communication)
- Safe cattle handling and staff chute side safety
-

Secondary objectives: to participate in other aspects of the mixed practice including bovine, equine and small animal caseload and emergency medicine.

2-3 veterinarians will supervise your experience. **Students are expected bring clothing suitable for palpating in cold weather.**

Housing: Room and board will be provided at a charge of $250 per two weeks. Laundry and kitchen facilities available. You will be responsible for most of your meals, but may be provided some meals with the family of the staff member you are staying with. You will need to bring a lunch on working days in case not in clinic. You will be notified if meals will be provided at specific locations.

Medical Imaging
(Radiology and Ultrasound)

ROTATION CODE: MI

INSTRUCTORS: Dr. S. Sukut

DURATION: 2 weeks

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 5-6 students per rotation

DESCRIPTIVE: This course focuses primarily on the making and interpretation of radiographs. The students will work with both large animals and small animals. A detailed schedule of rotation activities will be given to each student on day 1 of the rotation.

For instruction in the making of radiographs students are closely supervised by the radiology technologists until they develop enough proficiency to work independently. Ultrasonography including echocardiography is integrated into the casework. Some "hands-on" experience in abdominal sonographic examination is included. In addition to clinical cases a dedicated ultrasound lab occurs during week 1. Small animal MRI studies and small/large animal CT studies are regularly performed, and the students will be introduced to these imaging modalities.

The students' analytical skills in image interpretation will be developed by the radiologists through clinical case discussions using a variety of teaching formats. Daily rounds will deal with groups of topic-based cases that the students will be required to study in

advance. Students will be required to complete a DEPA in this rotation that assesses the student's ability to make a radiographic study. Each student will be required to present two imaging cases that will be chosen by the duty radiologist.

Rotation grades will be based on ability, attitude and participation in the handling of the imaging caseload, including the case presentations and rounds discussions. The DEPA is worth 10% and the remaining 40% of the grade will be based on 2 written examinations:
Technical Radiology Exam: A Blackboard exam will be available at the end of week 1 will test students on their understanding of the technical and physical aspects of radiography, including radiation safety.
Interpretive Exam: A Blackboard exam that occurs at the end of week 2 in which the students will interpret five radiology cases that the radiologists will select at random. The student must pass this exam to pass this rotation.

A single two-week medical imaging rotation should meet most students' needs for review and practice of the skills taught in Year II and III, as students are also exposed to case-based medical imaging in many other rotations.

Students who feel that further experience in medical imaging is appropriate for their career paths (e.g., internships) or would like more exposure to medical imaging may elect to take a second medical imaging rotation.

* Students may repeat this rotation only once. (i.e. a total of four weeks)

Okotoks Feedlot Health Management

ROTATION CODE:	OFL
INSTRUCTOR:	Dr. J. Campbell and N. Erickson
DURATION:	2 weeks
TIMING:	11-12 November 8, 2021 – November 21, 2021 (Dates in Okotoks are: November 14-20, 2021)
STUDENT NUMBERS:	4 students
PREREQUISITE:	A student must have taken the Bovine Nutrition elective (VLAC 493).
DESCRIPTIVE:	This rotation will take place in Okotoks, Alberta and will be based out of the Feedlot Health Management Services veterinary practice. The feedlot externship is **only one week in length** and students will spend the other week on field service at the WCVM. This is an intensive rotation focused on feedlot production and health management. The rotation will have directed learning experiences in both classroom and field settings with targeted follow-up and discussion of each experience. On most days, approximately ½ of the day will be spent in a classroom setting and the other half of the day will be spent in a field setting. The objective of the classroom exercises will be to provide/review the necessary background material so that the students can get the most out of the field experiences. The objective of the field experiences is to provide veterinary students with exposure to day-to-day feedlot operations so that students can gain an improved understanding of the feedlot production system and to provide hands on experience in performing selected animal health and veterinary procedures such as field necropsy, administration of vaccines, implants and minor surgery. The model of beef production consulting utilized at Feedlot Health Management Services will also be presented with the feedlot production consulting model as the primary example studied. Some funding of student expenses has been obtained in the past from various pharmaceutical company sponsors; however students should be prepared to pay for their food and lodging during this rotation. This is a very intensive one week experience in which the combination of clinical and classroom experiences averages 14-15 hours/day. Only students with a primary focus on food animal production medicine should select this rotation! Students are expected to travel there on the Saturday and start the rotation on the Sunday morning. Travel and food is covered for this rotation, with the hotel being a possible expense.

* A student may take this rotation only once.

Oncology

ROTATION CODE: ONC

INSTRUCTOR: Dr. V. MacDonald

DURATION: 2 weeks

TIMING:

3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
11 – 12	November 8, 2021	–	November 21, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
21 – 22	January 31, 2022	–	February 13, 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022

STUDENT NUMBERS: minimum of 2 to a maximum of 3 students per rotation

DESCRIPTIVE: Cancer is the #1 disease-related cause of death in companion animals in Canada and the US. Many clients will have preconceived notions regarding cancer and the treatment options available for their pets. It is important for every veterinarian (regardless of whether they choose to treat cancer patients in practice) to understand the basic principles of oncology.

The main objective of this course is for the student to be able to recognize common cancers in companion animals and to understand reasons for staging tests. In addition, the student will learn about treatment options and prognosis, so they will be able to offer this information to clients in practice.

Students will be assigned to receive cases presented to the Oncology service (medical and radiation) for scheduled appointments, emergency management and in-house transfers. Depending on the cases presented, possible skills/techniques that may be performed by the student include fine needle aspirates, skin/bone biopsies and bone marrow aspirates/biopsy. You will be able to follow your patient the entire time including collecting history, performing physical exam and staying with patient through any diagnostic tests that may be done.

The student will be responsible for any hospitalized cases and radiation outpatients during this course. Duties will include treatments, feeding, client communication, hospital records, collecting and submitting laboratory samples, scheduling other diagnostic tests and being directly involved with decision making about the case.

The rotation will include topic rounds in the morning prior to receiving cases at which time we will cover such things as the most common tumors seen in practice and chemotherapy drugs. Case rounds will be held in the afternoon at which time the student will present their case to the group.

The evaluation of students will be based on all aspects of their performance in the clinic including patient care, ability to work with the oncology team, client communication, technical skills and their preparedness for both topic and case rounds.

* A student may take this rotation only once.

Ophthalmology

ROTATION CODE: OPH

INSTRUCTOR: Drs. L. Sandmeyer, Dr. M. Leis, S. Osinchuk

DURATION: 2 weeks

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2018
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	-	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 2 - 4 students per rotation

DESCRIPTIVE: The objectives of this elective are to provide the student with an opportunity to gain competence in (1) the basic ophthalmic examination and (2) allow an in depth study of ocular disease.

Students will be involved with all clinical ophthalmology cases (LA, SA and Exotics) seen during the two-week rotation, with one student being assigned as primary student on each case. A teaching video will be provided on Canvas and all students must review this prior to beginning the rotation. A pre-rotation quiz must also be completed prior to the beginning of the rotation. There will be an end of rotation quiz which must be completed at the end of the rotation.

Topic rounds of varied ophthalmic conditions are posted on Canvas. These should be completed during the elective to cover essential case material that may not be seen by the clinical service. Each topic has a quiz to complete for self-evaluation. Case rounds will be held weekly and each student will present one case in depth each week. There will be a dead-head surgery lab on the first Friday of the rotation and a

journal club on the last Friday. Students will also participate in weekly histopathology rounds on Friday.

All weekend and after hour treatments are the responsibility of the students, and these treatments should be shared equally between all members of the group.

Evaluations of students will be based on case management, rounds presentations and participation, and pre-rotation and post-rotation quizzes.

* A student may take this rotation only once.

OVC – Dairy Cattle Welfare

ROTATION CODE:	ODC	
INSTRUCTOR:	Drs. D. Haley & T. Duffiel	
DURATION:	2 weeks	
TIMING:	Weeks S7-S8	June 7 – June 20, 2021 **June 7 – 11, 2021 (OVC)**
	Weeks 13-14	November 22 – December 5, 2021 **November 29- December 3, 2021 (OVC)**
	Weeks 21-22	January 31 – February 13, 2022 **February 7-11, 2022 (OVC)**
	****2nd Week at WCVM Ruminant Field Service will be in person**	
	Whether the OVC week rotation runs virtually or in-person will be directed by University of Guelph policy and public health measures amid the COVID-19 pandemic.	
STUDENT NUMBERS:	1 students per rotation	
PREREQUISITE:	Completion of the third year Dairy Elective (VLAC 453) and completion of one Ruminant Field Service rotation.	

DESCRIPTIVE:

First Meeting: When the rotation is held in-person, students will meet at 0830 h (EST) on the first day in a room to be determined. Should the rotation be an online offering, the mode of connecting with students virtually will be defined by the course instructors and communicated to the students in advance. **Whether the rotation runs virtually or in-person will be directed by University of Guelph policy and public health measures amid the COVID-19 pandemic.**

Goals: The goal of the rotation is to contribute to student Phase-4 competencies by providing learning opportunities in the context of dairy cattle welfare. The rotation aims, in particular, to provide experience in welfare assessment, communication and analytical discussion of key welfare topics important to the dairy cattle industry.

Teaching Objectives:

- Provide the resources to support students development & refinement of knowledge related to veterinary, dairy industry, and legislated standards in place to ensure the well-being of dairy cattle
- Review the fundamentals of practical animal welfare assessment and gain experience assessing farm specific data based on dairy industry animal care guidelines
- Reinforce the veterinarian's role in working with dairy clients to ensure good animal welfare
- Develop & refine general animal welfare knowledge for an entry-level DVM

- Provide opportunities to improve technical & client communication skills required of the entry-level food-animal practitioner.

Teaching & Learning Strategies:

- **In-Person:** Students will have lectures and discussions with selected faculty from the Ontario Veterinary College (OVC) who have expertise in key areas related to dairy cattle welfare. Students will participate in practical welfare assessments on 2 dairy farms using the proAction Animal Care Module as a guide. A livestock auction market and a veal farm will also be visited to further understand the welfare of dairy animals beyond the traditional context of the working dairy. Participants will complete assignments which are a mix of independent and small group work. Student directed topics will be encouraged throughout the week to provide participants a sense of ownership over the content and focus on the areas important to entry level veterinarians.

- **Online:** Using the learning platform, CourseLink, students will have access to pre-recorded lectures, suggested readings and related content to accompany lecture topics. The intent of pre-recorded content is to provide students with flexible learning. Zoom, or an equivalent platform, will be utilized for in-person discussions and presentations by faculty and students. In-person sessions are planned to allow students regular, daily check-ins regarding the content and to foster a sense of community in the virtual course. Participants will complete assignments which are a mix of independent and small group work. Student directed topics will be encouraged throughout the week to provide participants a sense of ownership over the content and focus on the areas important to entry level veterinarians.

Evaluation: Evaluation will be performed by the rotation coordinators. The evaluation will reflect the student's performance in the following learning categories/competencies.

- Basic knowledge
- Applied knowledge / assessment skills
- Technical skills / ability to delivery of veterinary care
- Attitude
- Ability to relate to colleagues and clients
- Professionalism

Overall Performance (grade): Outstanding, Pass, or Fail. Outstanding will be interpreted as recognition that a

student demonstrated evidence of independent self-directed learning & exceeds the competencies expected.

Administrative Considerations:

- Students external to OVC wanting to participate in the rotation will be selected by their home institution when such a process is in place or will be admitted to the program on a first come, first served basis after contacting the Saputo Dairy Care Program Manager dairywel@uoguelph.ca / 519- 824-4120 ext. 54009. Funding is available to visiting students to support travel and accommodations while attending the rotation.

- Visiting students will be required to complete an application form which will be provided by OVC administration once student participation is confirmed.
- When offered online, a stable high-speed internet connection is required for the rotation.
- For in-person teaching, students have steel toe boots (or equivalent protection) and dress appropriately; you will often be working outside as well as in a variety of barn/farm facilities. OVC students must bring at least 2 pairs of clean coveralls. Visiting students can be provided with coveralls if needed. All students will be provided with disposable boot covers.

- **SAFETY: Safety is a priority at all times. In order to ensure the safety of all participants, the safety procedures / guidelines provided by the instructors must be followed. It is the responsibility of each student to attend any safety orientation that is provided.**

All students in contact with large animals are required by U of Guelph safety policy regulations to wear approved safety boots or shoes. Students will not be permitted to participate in scheduled activities involving large animals if they do not comply.

External students:
Some funding may be available to help defer the cost of their attendance.

For more information contact the Saputo Dairy Care Program Manager, Lena Levison - dairywel@uoguelph.ca / 519-824-4120 ext 54305

* A student may take this rotation only once.

Pacific Cat Clinic

ROTATION CODE: PCAT

INSTRUCTOR: Dr. Helen Bell

DURATION: 2 weeks

TIMING: pre-draft application procedure

STUDENT NUMBERS: 1 student per rotation

DESCRIPTIVE: Come work and learn at the Pacific Cat Clinic in beautiful Victoria, B.C. Owned and operated by Dr. Helen Bell for over 30 years, we focus on providing high quality feline medicine. If you are interested in gaining experience in small animal medicine, an externship at our clinic could be a wonderful stepping stone in your educational pathway. We aspire to provide a supportive and challenging environment for our staff by providing hands on learning and experienced mentoring for students and new graduates.

Family owned and operated by Dr. Helen Bell for over 30 years, we are dedicated to providing the highest quality service to our feline friends, and creating long term-positive relationships with staff, clients, and their beloved feline family members. Through empathy, mutual support, communication and integrity, we deliver exceptional veterinary care while maintaining a fun and friendly atmosphere. We are AAHA certified, and the only Fear Free Certified clinic in Victoria B.C.

In our diagnostic and therapeutic toolbox we utilize high quality medical equipment including a CR x-ray, digital dental radiographs, later therapy, ultrasound, electronic medical records. In addition to our diverse and interesting caseload, we run a robust and rewarding rescue kitten adoption program. Working with cats across the lifespan exposes our staff to a range of complex chronic conditions, emergencies, as well as pediatric and preventative care. Working with us, you will gain experience doing surgeries such as spays, neuters, and dental procedures, as well as assisting with appointments, interpreting lab analysis, and communicating with clients.

For more information about our clinic, please check our website at www.PacificCatClinic.com

Poplar Valley Animal Clinic, Mankota, SK – Bovine OB Rotation

ROTATION CODE: PVB

INSTRUCTOR: Dr. Wendy Schmaltz

DURATION: 2 weeks

TIMING: pre-draft application procedure

S1 – 2	April 26, 2021	–	May 9, 2021
S5 – 6	May 25, 2021	–	June 6, 2021
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 1-2 student per rotation

DESCRIPTIVE: This clinic has a large number of cow-calf clients and is very busy in the spring of the year with a wide variety of obstetrical cases as well as breeding soundness examinations of bulls. You will get the opportunity to practice your surgical skills on C-section cases, obstetrics and post-partum conditions such as prolapses. Breeding soundness exams will also be being carried out on herd bulls both in the clinic and on the farm. The majority of obstetrical cases will be transported to the clinic although there may be some farm calls.

Students will participate in examining and treating patients both on the road and in clinic. The amount of hands-on experience provided will be based on preparedness for the given procedure. Students are encouraged to prepare ahead of time for scheduled calls and to have a basic understanding of common emergencies seen in bovine practice.

You will need to be available for after-hours calls. There will also be some opportunity to participate in some other aspects of the mixed practice including bovine medicine, sheep medicine/obstetrics, horse cases as well as small animal cases (for those truly interested in mixed animal practice.

There are 2 veterinarians who will supervise your experience.

Housing: Poplar Valley Animal Clinic will assist in finding accommodations..

Cardiology – Pulse Veterinary Specialists & Emergency

ROTATION CODE: CEDM

INSTRUCTOR: Dr. K. Hawkes

DURATION: 2 weeks

TIMING:

S3 – 4	May 10, 2021	–	May 24, 2021
S5 – 6	May 25, 2021	–	June 6, 2021
S17 – 18	August 16, 2021	–	August 29, 2021
5 – 6	September 27, 2021	–	October 11, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
21 – 22	January 31, 2022	–	February 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENTS: 2 students per rotation

DESCRIPTIVE: The Cardiology Service is a two-week rotation designed to expose senior veterinary students to the common congenital and acquired cardiovascular diseases of dogs and cats. By the end of this clinical rotation the Student should:

1. Demonstrate proficiency at conducting a thorough cardiovascular physical examination.
2. Be able to record and interpret an electrocardiogram in dogs and cats.
3. Demonstrate the ability to recognize common arrhythmias in dogs and cats.
4. Be able to provide emergency treatment of the most common arrhythmias in dogs and cats.
5. Be able to record and interpret non-invasive blood pressure measurements in dogs and cats.
6. Be able to recognize and treat systemic hypertension in dogs and cats.
7. Be able to recognize normal anatomic structures on thoracic radiographs.
8. Be able to recognize left and right heart enlargement patterns on thoracic radiographs.
9. Be able to recognize the radiographic hallmarks of cardiogenic pulmonary edema.
10. Be familiar with the various echocardiographic modalities - M-mode, two dimensional, color flow and spectral Doppler imaging.
11. Demonstrate a basic knowledge, and ability to recognize the most common congenital heart defects in dogs and cats, and know how they are treated.
12. Demonstrate a basic understanding, and ability to recognize, the most common acquired heart diseases of dogs and cats and know how they are treated.

13. Be familiar with classes of cardiac medications, basic mechanism of action, and potential side effects.

MISCELLANEOUS:

Attire: Extern's own surgical scrubs or lab coat
Remuneration: None
Housing: Not provided
Travel: Students are expected to provide their own means to come to Sherwood Park.

* A student may take this rotation only once.

CONTACTS: Dr. Kim Hawkes (kimh@pulseveterinary.ca)

Regulatory Veterinary Medicine

ROTATION CODE:	REG
INSTRUCTORS:	Dr. Lisa Wayman (CFIA)
DURATION:	2 weeks
TIMING:	Weeks 31-32 April 11 – April 24, 2022
STUDENT NUMBERS:	4 - 8 students
DESCRIPTIVE:	Information presented will expose students to the roles of veterinarians (private practitioners and federal veterinarians) in disease control, public health and regulatory medicine. This information will be presented through a combination of field training, classroom lectures/discussions, and opportunities for the students to apply their knowledge to regulatory, disease outbreak and public health scenarios. Field training includes tour of a slaughter facility, humane transportation monitoring, TB testing and EIA testing. Specialty topics include the reportable diseases, foreign animal disease emergency management, export of animals, humane issues, biosecurity, meat hygiene and food safety. This rotation provides comprehensive exposure to foreign animal diseases (prevention, recognition, action, and control). Students will be exposed to case scenarios in the role of the veterinarian at the site. Student evaluation will be based on completion of an FAD presentation with handout, preparation and report for a role- playing scenario and participation in class, such as in-class assignments, group discussion, and general participation. All modules for CFIA pre-accreditation are covered, including the pre-accreditation exam. Each student who successfully completes this rotation will receive a covering letter which is to be presented to the District Veterinarian when applying for accreditation.

* A student may take this rotation only once.

Remote Clinical Practice Rotation

ROTATION CODE: REMCP, REMCP4

INSTRUCTORS: Dr. Woodsworth; Dr. Sheehan; Dr. Borchardt; support from small animal surgery, anesthesia and medicine sections and others

DURATION: 2 weeks

TIMING: S3-4 (May 10-24)
S7-8 (June 7-20)

STUDENT NUMBERS: 4 students at a time

DESCRIPTION:

Purpose:

To provide students with clinical experience in delivering remote area veterinary services, including disease surveillance and prevention, population control and zoonotic disease management. Through classroom discussions and on-site learning, students will gain an understanding of the role of veterinary medicine in the context of socioeconomic determinants of human and animal health. Cultural, economic, geographical, political and social challenges having an impact on service delivery in these communities will be discussed. The importance of veterinary involvement in community initiatives will be discussed with an emphasis on One Health objectives. Students will also participate in community-based research and education programs.

Objectives:

While on rotation, students will:

- Identify and discuss challenges faced by remote communities (animal population management issues, animal welfare issues, public health issues, political and cultural challenges, economic challenges)
- Discuss existing capacity and strengths within communities to address these challenges
- Rationalize the delivery of veterinary or public health services from outside parties
- Formulate strategic plans for clinic setup and service delivery onsite
- Demonstrate entry-level clinical competence and efficiency in performing sterilization surgeries in dogs and cats
- Demonstrate sound judgment and competence in anesthetic maintenance and monitoring during elective surgeries
- Elicit thorough histories through discussions with clients
- Perform complete physical examinations and pre-surgical assessments
- Practice technical skills, time management and professional documentation

- Describe characteristics of diseases commonly seen in remote areas that may not be common in urban small animal practice
- Demonstrate peer teaching skills
- Demonstrate effective communication with clients, peers, instructors and volunteers
- Demonstrate self-awareness, self-regulation and active self-reflection
- Demonstrate cultural curiosity and humility, considering own role in reconciliation in a Canadian context
- Recount the impact of the experience on themselves, the community and the animals through a final oral presentation to veterinary student peers
- Design and deliver interactive presentations for school children as an exercise in community outreach and education

Schedule (subject to change):

Monday – Wednesday: orientation and preparation at WCVM (as much remote delivery as possible)
Wednesday – Thursday: clinic set up and community engagement in La Ronge
Friday – Monday: Clinic activities in La Ronge
Tuesday: return to Saskatoon; remainder of day off
Wednesday: unpack; begin debrief
Thursday: detailed debrief; begin work on presentations
Friday: feedback and wrap up discussions; presentations to student peers at lunch (via Webex)

Evaluation:

Learners will be evaluated on achievement of the above objectives. Communication skills, planning foresight, cultural humility, knowledge and clinical competencies will be assessed. Working as a team with peers and mentors, learners are expected to demonstrate improved efficiency in patient assessment, surgery and anesthesia through the rotation. In addition to delivering an interactive presentation to school children in the community, learners will be required to engage in reflective discussions with classmates and instructors before and after the clinic. Learners will also deliver a final presentation to their veterinary peers describing the experience and the impact (real or perceived) programs such as these have on communities, animals, veterinarians and volunteers.

*A student may take this rotation only once.

Research & Written Communication Rotation

ROTATION CODE: COM

INSTRUCTORS: Dr. Liz Snead, Dr. Sarah Parker, Dr. Tasha Epp

DURATION: 2 weeks

TIMING: Weeks 13 – 14 November 22, 2021 – December 5, 2021

STUDENT NUMBERS: 6 students per rotation

DESCRIPTION: This rotation allows students with an interest in research to expand on their current knowledge base and skills with the ultimate goal of producing a manuscript suitable for submission to a peer-reviewed journal for possible publication. Completion of a solid first draft for the scientific manuscript (case report, case series, retrospective or prospective study) will be emphasized and will form the basis for the majority of the student's grade. The faculty mentors supervising students are also expected to contribute to the delivery of the research elective seminars or participate or help lead at least one of the journal club sessions.

The manuscript should be written according to the style of a journal most appropriate for their field of study. The manuscript must be of publishable quality and the student is expected to submit it for publication.

Sessions in this course will include 8 lecture hours and 3 journal club sessions. Various topics will be covered but the focus is on how to approach writing a scientific manuscript for submission to a peer-reviewed veterinary journal. Students should come prepared to write a manuscript within the two-week period covered by this course. There is not time within the 2 week period to conduct a research project and to write up a manuscript so it is assumed that the raw data collection for the "research project" must have occurred before the start date of the course. This could include having previously collected all the needed data for a case report/case series/retrospective or prospective study. If students have done summer research projects and would like to use this opportunity to produce a manuscript this would be very acceptable. Likewise if you have seen a case in practice that you feel would be a good addition to the literature, and you have identified a supportive faculty mentor, this would also be very acceptable.

The seminar and journal club sessions are designed to assist students in preparation of their manuscript and ideally to culminate in successful publication to assist in their professional career development.

A schedule of the various seminars and journal club sessions is provided. Students will receive handouts, individual module objectives, and reading assignments from individual instructors whenever possible well in advance of the session.

For the purposes of this course students are expected to identify an individual faculty supervisor to mentor them one-on-one during the process of preparing the manuscript. The student is expected to meet with their faculty mentor every other day over the short time period for this course to ensure they are staying on track and achieving the expected milestones. The faculty mentor will also be responsible for assigning a grade for the manuscript based on an objective scoring rubric. If the student is writing up a prospective research project then ideally the faculty mentor who oversaw their summer research project would also serve as their faculty mentor for this course.

Rationale for the Course

Exposure to research methodology is a vital skill for the veterinarian. The ability to complete a manuscript for publication aids the student's learning on how to write for a scientific journal, how to present data in the most effective manor and how to navigate and respond to criticism in the peer-review process. The skills learned will enhance the students' communication skills as well as skills in critical evaluation of scientific literature. Students who are thinking about careers in any aspect of veterinary medicine including private practice, specialization, academia, public health, government / regulatory medicine, and industry, will benefit from this course to help build their professional curriculum vitae.

Ruminant Neonatal Management

ROTATION CODE:	RNM
INSTRUCTORS:	Dr. D. Dadarwal
DURATION:	2 weeks
TIMING:	Weeks 27-28 March 14, 2022 – March 27, 2022
STUDENT NUMBERS:	8 students
PREREQUISITE:	A student must have taken the Bovine Nutrition elective (VLAC 493) and be registered in Large Animal Medicine.
DESCRIPTIVE:	*This rotation contains extended days and out of hours requirements which are essential components of the clinical experience.*

We plan to breed around 30 sheep to lamb during the rotation. These ewes will lamb out in two batches, one batch for each week of the rotation. Depending on the plans for the WCVM goats, there is likelihood of having some goats scheduled for kidding during the rotation period as well. The rotation will cover antenatal care, obstetrics, postpartum evaluation of the mother and neonatal care of ruminant species and processing of the lambs. The rotation will include practical hands-on experience and seminars. There will be an on-call schedule to care for the animals. The rotation is well-supported by residents and clinicians (medicine and bovine field service).

Saskatchewan Provincial Government (Regina)

ROTATION CODE: SPG

INSTRUCTOR: Veterinary Unit

DURATION: 2 weeks

TIMING:

7 – 8	October 12, 2021	-	October 24, 2021
9 – 10	October 25, 2021	-	November 7, 2021
11 – 12	November 8, 2021	-	November 21, 2021
13 – 14	November 22, 2021	-	December 5, 2021
19 – 20	January 17, 2022	-	January 30, 2022
29 – 30	March 28, 2022	-	April 10, 2022

STUDENT NUMBERS: One student per rotation

DESCRIPTIVE: This rotation provides an overview of the provincial role in animal health and welfare in Saskatchewan, as well as the role of the veterinarian. The student will be provided the opportunity to develop written and oral communication skills as well as to network with Ministry of Agriculture staff. The student will develop an understanding of animal health and welfare from a provincial-federal level as well as from the perspective of a practicing veterinarian in Saskatchewan.

Legislative/ Policy: The student will be introduced to the role of government in the development of policies that impact animal health and welfare. The responsibility of veterinarians in contributing to public policy will be highlighted. The student may be given an opportunity to provide input into or to develop animal health policy relevant to issues facing Saskatchewan. The rotation may include a tour of the Legislative building.

The student will build an understanding of development of animal health and disease control policies, become familiar with provincial disease response plans as well as understand animal health legislation and reportable/notifiable diseases.

Animal Welfare: The Ministry of Agriculture is responsible for administration of *The Animal Protection Act* and ensuring it provides adequate protection of animals and clear direction for animal protection enforcement in the province.

Research the role of the veterinarian in animal welfare including expertise during an investigation, legislative responsibility, networks and resources and promoting humane animal care practices. Review and compare provincial legislation and decide on the best way to enforce the humane care of animals.

Understand the role and authority of the Animal Protection Officer in responding to animal welfare concerns and enforcing *The Animal Protection Act*. Learn how animal welfare enforcement operates in Saskatchewan.

Depending on availability, the student may tour an animal protection agency and meet with an animal protection officer.

Epidemiology: The student will be introduced to the role of public sector veterinarians in the surveillance and management of disease. This may be a real opportunity or an evaluation of a previous disease outbreak. Current disease surveillance activities may be assessed. The student may be given an opportunity to work with some datasets to develop analytic skills.

Foreign Animal Disease: The Ministry is responsible for the development and maintenance of the provincial foreign animal disease plan. The student may be expected to participate in the development and implementation of an emergency exercise. The student may have the opportunity to enhance knowledge of outbreak investigation through completion of Incident Command System training.

Meat Hygiene: The Ministry oversees delivery of meat inspection services in Saskatchewan domestic meat plants. This includes development of Regulations and Standards. The student would have an opportunity to observe the implementation of these regulations and standards in a slaughter plant in Saskatchewan including ante-mortem and post-mortem inspection. Animal welfare and humane slaughter will be a focus during visits to these plants.

Programming: Animal health programming in areas such as chronic wasting disease, anthrax, porcine epidemic diarrhea and rabies require continual development and refinement, as well this provides insight into federal-provincial dynamics. Emerging issues at the national and international level may give this student an opportunity to observe the complex interaction between various provincial governments across Canada and the relationship between government and industry. Externship students will be given an opportunity to evaluate and contribute to development or review of specific animal health programs.

Contacts: Dr. Stephanie Smith (stephanie.smith@gov.sk.ca) and Mikayla Waller (mikayla.waller@gov.sk.ca)

Swine Practice - SK

ROTATION CODE:	SWI1
INSTRUCTOR:	Drs. J. Harding and M. Costa
DURATION:	2 weeks
TIMING:	Weeks 7-8 October 12 - 24, 2021
STUDENT NUMBERS:	2-6 students
PREREQUISITE:	Students must have taken the Swine Production Elective (VLAC 439) and be registered in Large Animal Medicine during their clinical year. In special circumstances, students may be permitted enrol in SWI with permission of the instructor following the draft.
DESCRIPTIVE:	This rotation is meant to provide concentrated studies in swine medicine and modern swine production. Course activities will include herd visits, directed discussions on disease and production, student presentations, hosted technical seminars and web labs. Students will complete a number of assignments enhancing their knowledge of drug usage on swine farms, production records, and gross necropsy. There is a strong emphasis on preventive medicine in all aspects of this rotation. The general concepts discussed and reviewed certainly are applicable to other livestock species. The rotation will include complementary registration at the Western Canadian Association of Swine Veterinarians' Annual Conference in Saskatoon. Attendance at the two-day conference (Thursday/Friday) is mandatory. Because of the limited enrolment, it is encouraged that only students with a sincere interest in swine medicine and production should select this rotation. The rotation may include a 2-3 day trip out of province. Students are responsible for their out of pocket expenses. Lodging will be provided.

* This rotation is only offered once.

Small Animal Clinical Nutrition

ROTATION CODE:	SAN			
INSTRUCTOR:	Dr. T. Owens			
DURATION:	2 weeks			
TIMING:	11 – 12	November 8, 2021	–	November 21, 2021
	15 – 16	December 6, 2021	–	December 19, 2021
STUDENT NUMBERS:	2- 4 students per rotation			

DESCRIPTION:

Rotation hours are standard; however, majority of case work may occur in the mornings, with portions of the day left for self-directed learning, research, and case-planning. Exact scheduling may vary with exact rotation dates.

The rotation will focus on practical application of small animal nutrition principles to common scenarios in practice. The overarching goal is for the student to gain proficiency in nutrition related competencies expected of graduating veterinarians, as established by the ACVN. Collection of accurate diet histories, analysis of current diet and formulating recommendations will be key to all appointments. Working with other services will necessitate learning and awareness of contraindications to certain dietary recommendations and to differentiate cases where recommendations can be made based on already available information (compared to cases where a more thorough extended nutritional evaluation is indicated).

A combination of topic rounds, nutrition focused projects, self-directed learning, and clinical cases presenting to the VMC will be utilized to achieve this. Preference will be given to the use of clinical case management for review; however, exact content may vary with the interests of the students on rotation and the available case load.

Emphasis will be placed on learning related to common nutritionally-managed diseases such as obesity, renal/urinary disease, adverse food reactions, and gastrointestinal disease. Dealing with more complex cases is likely; however, learning objectives for students will be focused on application of principles universal to case management expected for general practice or entry into an internship. The nutrition service may also be asked to assist or consult on hospitalized cases in other services to provide in-hospital feeding recommendations/plans and assisted

feeding (tube) plans as needed. The nutrition service also works with other services within the hospital to provide support and recommendations for their patients.

Goals:

- Develop confidence in nutritional management of common diseases/issues
- Review basic nutritional principles and core competencies (diet history, body and muscle condition scoring, recognizing potential problems and need for extended evaluations, etc.)
- Review pathophysiology of common nutritionally-related diseases and be able to explain principles of nutrition management
- Gain familiarity and competence with utilizing available resources to manage nutrition-responsive diseases
- Develop confidence and comfort communicating with clients and answering common nutrition-related questions from pet owners.

Small Animal Elective Surgery

ROTATION CODE: SASE

INSTRUCTORS: Dr. D. de Rantere

DURATION: 2 weeks

TIMING:

S3 – 4	May 11, 2020	-	May 24, 2020
S11 – 12	July 6, 2020	-	July 19, 2020
S17 – 18	August 17, 2020	-	August 30, 2020
3 – 4	September 14, 2020	–	September 27, 2020
5 – 6	September 28, 2020	–	October 12, 2020
7 – 8	October 13, 2020	–	October 25, 2020
9 – 10	October 26, 2020	–	November 8, 2020
11 – 12	November 9, 2020	–	November 22, 2020
13 – 14	November 23, 2020	–	December 6, 2020
15 – 16	December 7, 2020	–	December 18 (6PM), 2020
19 – 20	January 18, 2021	–	January 31, 2021
21 – 22	February 1, 2021	–	February 15, 2021
23 – 24	February 16, 2021	–	February 26 (6PM), 2021
27 – 28	March 15, 2021	–	March 28, 2021
29 – 30	March 29, 2021	-	April 11, 2021
31 – 32	April 12, 2021	–	April 25, 2021

STUDENT NUMBERS: 4 students per rotation

COMPLETE SPAY DEPA DURING THIS ROTATION

DESCRIPTIVE: Learning objectives of the electives rotation include development of surgical skills including tissue handling, use of instruments, ensuring adequate knot security, techniques to ensure cosmesis of closure. Learning objectives also include the ability to describe a plan for complications encountered during spays and neuters, description of abdominal anatomy with specific reference to the urogenital tract, and formation of an appropriate post-operative plan for spay and neuter patients.

Rounds will take place in the mornings, and will be led by the surgery clinical associate, with some rounds including faculty participation, depending on clinician availability. Rounds topics may include spay complications, neuter complications, ovariectomy vs.

ovariohysterectomy, pyometra, c-section, cystotomy and any other topic of interest to the clinicians or students.

Students will be evaluated using the results of the spay DEPA and performance on the rotation including patient care, accuracy and thoroughness of the medical record, participation in rounds and surgical skill. Evaluation will be given at mid-rotation, which is at the end of the first week, and written evaluation will be given at the end of the rotation. If there is a serious weakness identified at the mid-rotation evaluation, written evaluation will be provided along with parameters for improvement that need to be met in order to achieve a passing grad in the rotation.

Students on the electives rotation will be entered into the surgical call schedule with the students who are on the majors rotation. Emergency duty in the clinic on the weekends will also be a part of the rotation.

* A student may take this rotation only once

Small Animal Surgery Majors & Electives

ROTATION CODE: SAME

INSTRUCTORS: Drs. D. de Rantere, K. Aoki, C. Shmon, K. Linn

DURATION: 2 weeks

TIMING:

19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022

STUDENT NUMBERS: 8 students per rotation

DESCRIPTIVE: This general small animal surgery course is designed to introduce students to fundamental concepts. It will focus on the clinical diagnosis and management of surgical problems observed in small animal practice using clinical cases presented to the Veterinary Medical Centre. Hands on experience will be provided primarily through assistance in major procedures, and through the performance of elective procedures.

Objectives:
To develop and practice basic problem-solving and diagnostic skills for the management of small animal surgical problems.

To learn and practice optimal perioperative patient managements including the recognition and management of surgical complications.

To teach students how to apply sound surgical judgement and surgical techniques to patients presenting with surgical diseases.

To practice and further refine surgical psychomotor and tissue handling skills.

To develop communication skills through the interaction with clients, peers and clinicians.

To develop an awareness of practicalities, success and economics of various treatment regimes.

* Students will be expected to successfully complete and pass a spay OSCE to pass this rotation.

* Students may repeat this rotation only once.

Small Animal Medicine

ROTATION CODE: SAM

INSTRUCTORS: Drs. C. Carr, K. Cosford, M. Craven, J. Loewen and E. Snead

DURATION: 4 weeks

TIMING:

1 – 4	August 30, 2021	–	September 26, 2021
5 – 8	September 27, 2021	–	October 24, 2021
9 – 12	October 25, 2021	–	November 21, 2021
13 – 16	November 22, 2021	–	December 19, 2021
17 – 20	January 4, 2022	–	January 30, 2022
21 – 24	January 31, 2022	–	February 25 (6PM), 2022
25 – 28	March 1, 2022	–	March 27, 2022
29 – 32	March 28, 2022	–	April 24, 2022

STUDENT NUMBERS: 10 students per rotation

DESCRIPTIVE: The main objective of this course is to have the student learn to practice clinical small animal medicine. The student will work together with clinical faculty and house officers to manage patients presented to the Small Animal Clinic of the Veterinary Medical Centre. The student will develop the observational and communicative skills necessary to interact with pet owners and collect relevant clinical information. The student will learn to handle, restrain and examine dogs and cats and will develop the manual and technical skills required for diagnosis and treatment of these animals. The student will learn and practice a logical, problem-oriented analytic approach to making clinical decisions relating to diagnosis, prognosis, management and disease control.

Students will be assigned to receive cases presented to the Small Animal Clinic for scheduled appointments and emergency management. The students will be responsible for all aspects of management of their hospitalized cases, 24 hours a day, seven days a week. This will include all treatments, feeding, maintaining hospital records, collecting and submitting samples for laboratory analysis, interpreting diagnostic test results, communicating with owners and participating in decision-making about their cases.

Morning rounds will be held daily (Monday to Friday) in the rounds seminar room, with one case being presented to the group by a student on the rotation. Afternoon case rounds will take place on Monday, Wednesday and Friday in the clinic. There will be two written examinations during the course of the rotation. The student will be required to keep a written log of all cases managed during the rotation.

The evaluation of students will be based upon all aspects of their performance in the clinic, their preparedness for rounds presentations and discussions and their examination scores.

* A student may take this rotation only once.

Small Animal Nutrition and Rehabilitation Joint Rotation

ROTATION CODE: SANR

INSTRUCTORS: Dr. T. Owens, Dr. R Pinto, Dr. K. Penney

DURATION: 2 weeks

TIMING:

5 – 6	September 27, 2021	–	October 11, 2021
9 – 10	October 25, 2021	–	November 7, 2021
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022

STUDENT NUMBERS: 4 students per rotation

DESCRIPTIVE: Students will spend 1 week with the rehabilitation service and 1 week with the nutrition service. In some cases (e.g. osteoarthritis management, weight loss), rounds topics may be integrated with both services participating. Some cases may be managed or need consultation with both services, fostering a more integrative approach.

REHABILITATION SECTION

Daily activities will consist of topic rounds as well as participation in the treatment of clinical rehabilitation cases. In comparison to the full canine rehabilitation rotation, this rotation will cover fewer topics related to rehabilitation with more of a focus on common conditions encountered in general practice.

Rotation hours are generally from 8:00 am to 5:00 pm Monday to Friday, however, some patient care for in-hospital patients may be required evenings and weekends. One day of the week, students will be required to stay late for appointments. There will be no on-call duties.

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A review of canine applied anatomy, particularly bones and muscles is required prior to the start of the rotation.

Grading will be based on rounds participation, skill in rehabilitation patient evaluation and treatment, patient care and attitude.

Goals:

- to become familiar with the approach to rehabilitation of cases involving post-operative orthopedics, neurologic cases, osteoarthritis cases and soft tissue injuries
- to perform initial evaluations on clinical cases and formulate treatment plans with the guidance of a rehabilitation clinician
- to become competent with basic techniques such as massage, passive range of motion, stretching and rhythmic stabilization

- to understand the use of modalities such as heat, ice, therapeutic ultrasound, acupuncture, E-stim and low-level laser
- to understand the application of therapeutic exercises such as cavelettis, sit to stands and the underwater treadmill

On completion of the rotation, students should be familiar with many of the concepts in rehabilitation, however, it is still recommended that those interested in practicing rehabilitation medicine take further training and become certified practitioners.

NUTRITION SECTION

Rotation hours are standard; however, majority of case work may occur in the mornings, with portions of the day left for self-directed learning, research, case-prep and planning. Exact scheduling may vary with exact rotation dates.

The rotation will focus on practical application of small animal nutrition principles to common scenarios in practice. The overarching goal is for the student to gain proficiency in nutrition related competencies expected of graduating veterinarians, as established by the ACVN. Collection of accurate diet histories, analysis of current diet and formulating recommendations will be key to all appointments. Working with other services will necessitate learning and awareness of contraindications to certain dietary recommendations and to differentiate cases where recommendations can be made based on already available information (compared to cases where a more thorough extended nutritional evaluation is indicated).

A combination of topic rounds, nutrition focused projects, self-directed learning, and clinical cases presenting to the VMC will be utilized to achieve this. Preference will be given to the use of clinical case management; however, exact content may vary with the interests of the students on rotation and the available case load.

In comparison to the full nutrition rotation, this rotation will likely cover fewer nutritional topics overall. General topics covered with, therefore, focus more on the most common conditions encountered in general practice, with more in-depth review of those that overlap with rehabilitation (e.g. obesity, osteoarthritis, muscle loss, senior pet nutrition, etc.). Other types of cases/topics reviewed by individual students will then depend on case presentations within the hospital and appointment scheduling.

Emphasis will be placed on learning related to common nutritionally-managed diseases such as obesity, renal/urinary disease, adverse food reactions, and gastrointestinal disease. Dealing with more complex cases is likely; however, learning objectives for students will be focused on application of principles universal to case management expected for general practice or entry into an internship. The nutrition service may also be asked to assist or consult on hospitalized cases in other services

to provide in-hospital feeding recommendations/plans and assisted feeding (tube) plans as needed. The nutrition service also works with other services within the hospital to provide support and recommendations for their patients.

Goals:

- Develop confidence in nutritional management of common diseases/issues
- Review basic nutritional principles and core competencies (diet history, body and muscle condition scoring, recognizing potential problems and need for extended evaluations, etc.)
- Review pathophysiology of common nutritionally-related diseases and be able to explain principles of nutrition management
- Gain familiarity and competence with utilizing available resources to manage nutrition-responsive diseases
- Develop confidence and comfort communicating with clients and answering common nutrition-related questions from pet owners.

* A student may take this rotation only once.

Small Animal Surgery 2

ROTATION CODE: SA2

INSTRUCTORS: Drs. K. Aoki (co-ordinator), Dr. C. Shmon, Dr. K. Linn

DURATION: 2 weeks

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 3-6 students per rotation

DESCRIPTIVE: This general small animal surgery course is designed to introduce students to fundamental concepts. It will focus on the clinical diagnosis and management of surgical problems observed in small animal practice using clinical cases presented to the Veterinary Medical Centre. Hands on experience will be provided primarily through assistance in major procedures. Students desiring a more intensive experience in small animal surgery should select the Small Animal Surgery Electives rotation or repeat this rotation.

Objectives:
To develop and practice basic problem-solving and diagnostic skills for the management of small animal surgical problems.

To learn and practice optimal perioperative patient managements including the recognition and management of surgical complications.

To teach students how to apply sound surgical judgement and surgical techniques to patients presenting with surgical diseases.

To develop communication skills through the interaction with clients, peers and clinicians.

To develop an awareness of practicalities, success and economics of various treatment regimes.

Small Ruminant

ROTATION CODE:	SR
INSTRUCTORS:	Dr. C. Clark
DURATION:	2 weeks
TIMING:	Weeks 25 – 26 March 1, 2022 – March 13, 2022
COREQUISITE:	Students must also be scheduled in Large Animal Medicine.
STUDENT NUMBERS:	8 students per rotation
DESCRIPTIVE:	This course is meant to provide an in-depth examination of the sheep and goat industry in this area. Course activities will include a review of nutrition of sheep and goats, clinical cases, general sheep management, flock health programs, ultrasonography of ewes (if any are available at the appropriate stage of gestation), ram fertility evaluation, and selected field trips. Each student will be required to make a presentation at the end of the rotation on an industries topic of interest. The topics will be given out at the beginning of the rotation. Travel expenses including the cost of meals and hotels are at the expense of the student.

This course is not recommended for pregnant students.

South West Animal Health Centre, Swift Current

ROTATION CODE: SWAHC

INSTRUCTOR: Dr. G. Griffin

DURATION: 2 weeks

TIMING: pre-draft application procedure
Beginning of April (1 student) – heavy obstetrical case load and semen testing
End of April (1 student) – heavy obstetrical case load and semen testing

STUDENT NUMBERS: One student per rotation

DESCRIPTIVE: Students will accompany a vet throughout their rotation leading or assisting in all cases seen by the veterinarian. Students will be expected to take call 50% of the nights/weekends during their rotation. Depending on the time of year cases may include:

- Bovine obstetrics (malpresentations, caesareans, vaginal prolapses, uterine prolapses)
- Semen testing
- Bovine neonatal care

Housing: Accommodations **may** be available in the clinic.

Vancouver Aquarium

ROTATION CODE: VAQ

INSTRUCTORS: Dr. M. Haulena

DURATION: 2 weeks

STUDENT NUMBERS: Varies

DESCRIPTIVE:

Veterinary Medicine: Assist veterinarians and veterinary staff with monitoring cases, participating in daily rounds, developing treatment options, and diagnostic and surgical procedures as required. Maintain complete patient records. Students should be aware that the number of clinical cases requiring hands-on care is low at a public display facility and the majority of time is spent developing health management programs for the collection animals. Students should be prepared to take advantage of unsupervised "down time" to read relevant literature and to pursue learning objectives.

Project: Students will be responsible for doing a literature review on a veterinary topic of their choice relevant to the Vancouver Aquarium externship experience. They will present their findings to the husbandry staff during their last week in the form of a noon hour Powerpoint presentation.

Husbandry: Each student is required to assist husbandry personnel with their duties.

Science: Each student is required to participate in necropsies including record keeping, data entry, sample taking and storage, and cleaning. The student is also invited to assist with ongoing research projects.

Laboratory: Duties include processing blood samples, water quality analysis and performing routine laboratory analyses.

Stranding: Assist the Marine Mammal Rescue program with the rescue, transport and care of stranded marine mammals as required. The student will spend at least one day every week at the rehabilitation facility.

* A student may take this rotation only once

* Students are in 2nd Year when they apply for this rotation. Selection of candidate(s) will be made by Dr. Haulena.

CONTACT: Dr. Martin Haulena (martin.haulena@vanaqua.org) or (604) 659-3468

DERMATOLOGY – Vet DERM Clinic, BC

ROTATION CODE: DERMREF

INSTRUCTOR: Dr. Jangi Bajwa

DURATION: 2 weeks

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
13 – 14	November 22, 2021	–	December 5, 2021
21 – 22	January 31, 2022	–	February 13, 2022

STUDENT NUMBERS: 2 students per rotation.

DESCRIPTIVE: This is a clinical dermatology rotation where referral and non-referral small animal dermatology cases are examined by each of the students on the rotation. The goal of the rotation is to provide you with an opportunity to apply your knowledge and develop your skills in the discipline of dermatology while gaining clinical experience with the workup and management of dermatological conditions in dogs and cats. Please review your notes from past lectures in Dermatology before the start of the rotation.

Learning objectives

1. To become competent in collecting a complete general and dermatologic focused history from the client.
2. To become competent in performing a thorough general physical examination and a focused dermatologic examination (including an otic examination) recognizing significant abnormalities. You should be able to provide a morphological description of the lesions and their distribution.
3. To be able to take identified abnormalities and formulate a list of common differential diagnoses and diagnostic plan to determine the diagnosis.
4. To be able to identify common and important dermatological conditions in dogs and cats observed in general practice including infectious skin diseases (bacterial, fungal and parasitic), otitis externa/media, allergic skin disease, skin manifestations of endocrine disease, allergic and immune-mediated skin diseases.
5. To be able to perform basic diagnostics commonly performed on dermatologic cases (eg. impression cytology, skin scrapings, dermatophyte cultures, direct hair exams, bacterial culture, skin biopsy and the clinical diagnosis of atopic dermatitis.) as well as otoscopic evaluations.

6. To be able to formulate a reasonable therapeutic plan for the management of common and important dermatologic conditions observed in general practice and justify why you chose that plan.
7. To build competency in communicating with clients and within a professional team (colleagues, clinician and animal technologist, and staff), including efficient time management.
8. To develop an awareness of the cases which can be effectively managed in general practice and those that would be best served by referral to a specialist.

Orientation: Orientation will be held at 8:00 on the first day of the rotation.

Dress: For the rotation, you should wear professional attire appropriate to interacting with clients.

Rounds: Rounds will be scheduled at the beginning of the rotation and include morning rounds, journal club and end of rotation presentations.

1. Morning rounds will generally be an in-depth discussion of specific topics. You should read-up on the topic in advance to make sure you come prepared to join the discussion. Rounds may also be held at the end of the day to discuss the day's cases and plan for the next day. This will depend on the caseload.
2. End of rotation rounds: you will be asked to prepare and present on one dermatological topic (typically on the last day of the rotation). Please select and discuss your topic with the instructor by the first Wednesday of the rotation.
3. Weekly Journal club will be held on Fridays and students will be expected to review the selected articles and be able to discuss them at the sessions.

Otoscopy wetlab: Wetlab for practice on detailed hand held otoscopic evaluation of patients will be organized during the rotation. Prepare for this lab by reading on ear anatomy, important landmarks and techniques of otoscopic examination.

Appointment schedule: Appointments are typically one hour in length. Appointments will be assigned the day before to allow you to review the case record or any referral information and read up on the case in advance.

General:

1. Appointments are scheduled for one hour with one student assigned to each case. Cases assignments will ideally be done the day before so to provide time to research the case if needed. It is assigned student's responsibility to begin the appointment at the scheduled time, introduce themselves to the client, collect the history, and perform the physical examination. Try to complete

this component in the first 10-15 minutes so you will have time to formulate your diagnostic plan and discuss it with the clinician before they must complete their component of the appointment (last 40 minutes). Avoid discussing your plan with the client as it may change after discussion with the clinician. The clinician and other students (as available) will then meet with the client, examine the patient, and present the plan and estimate to the client. Ideally, the assigned student will enter information into the medical record during this part of the appointment but it is their responsibility to ensure it is completed by the end of the day. It is very important for the service that the appointments run on time so use your time efficiently. If you are observing a consultation when your appointment is scheduled to begin, please excuse yourself, and begin your assigned appointment at the scheduled time.

2. In hospital patients: Students are responsible for the treatments and maintaining the medical records on any hospitalized patients or patients spending the day at the clinic for procedures. Each patient should be discharged with written discharge notes. Generally the referring veterinarian will be called and a referral letter should go to the referring veterinarian within 24 hours of discharge (unless additional test results are pending).

3. If communicating with clients, ensure each communication is summarized in the communication section of the medical record.

NOTE: * A student may take this rotation only once.
* Please note that this rotation takes place in more than one practice with travel between the practices required by the students.
* After hours and weekend duty is not anticipated.

Veterinary Agri-Health Services – Advanced Beef Production Medicine

ROTATION CODE: VAHS

INSTRUCTORS: Dr. Elizabeth Homerosky

DURATION: 2 weeks

TIMING: pre-draft application procedure
July 19 – 30, 2021

STUDENT NUMBERS: Varies

DESCRIPTIVE:

Objective – To provide 4th year veterinary students with the knowledge-base, skill-set, and resources necessary for a successful career as a cow-calf and feedlot practitioner.

Schedule – July 19–30th, 2021; 8am-6pm (some activities to take place outside this time frame)

Enrolled Students – 10 students from Canadian and US veterinary colleges

Daily activities - Interactive lectures, hands-on wet-labs, site visits and group project sessions

Organization – All parties involved will facilitate daily activities; most lectures and other classroom work will take place in the VAHS or Namaka Farms boardroom; VAHS instructors will locate and coordinate off-site activities; transportation to all activities, as well as, all lunches and some suppers will be provided

STUDENT ASSIGNMENTS

Protocol development - Students will work as a team during time-allotted group sessions to develop a herd health and MLV vaccination protocol and calendar fora commercial cow-calf operation including cost/head estimate

Site visit summary reports - Students will work together during time-allotted group sessions to write a site visit summary report with detailed recommendations following the disease investigation and other activities

Individual project - Students will research a relevant beef cattle topic (not required to be veterinary-related) that they would like to be more knowledgeable about and prepare a 10 min presentation to be given to the group

SCEHDULE OF DAILY ACTIVITIES

Week 1 – Cow-Calf Emphasis

Day 1 – Monday, July 19th			Coordinated by Kumlin
8:00 – 9:00 AM	● Orientation and introductory remarks ● Statement of rotation goals from students	VAHS	All available instructors
9:00 AM – 12:00PM	● Lecture – Cow-calf production management ● Lecture - Replacement heifer selection	Soderglen Ranches	Kumlin
12:00 – 1:00 PM	● Lunch	Soderglen Ranches	
1:00 – 2:30PM	● Lecture – EPDs and Genomics ● Lecture - Sire selection using conformation	Soderglen Ranches	Jared Sherman, Kumlin
2:30 – 4:00 PM	● Wetlab – Bull and heifer selection using EPDs and producer scenarios	Soderglen Ranches	Jared Sherman, Kumlin, Homerosky
4:30 – 7:00 PM	● Lecture – Veterinary Practice Management ● Supper	VAHS	Dorin

Day 2 – Tuesday, July 20th			Coordinated by Dorin
8:00 – 12:00 AM	● Lecture – Cow-calf and feedlot growth promotants (physiology, safety, protocols, production data) ● Wetlab – Implanting technique and audits	VAHS	Dorin, Warr, Ware
12:00 – 1:00 PM	● Lunch	VAHS	
1:00 – 3:30 PM	● Lecture – Cow-calf and feedlot medicated feed additives (tylsoin, monensin, ractopamine, zilpaterol) ● Wetlab - Writing feed prescriptions	VAHS	John McKinnon, Dorin
3:30 – 5:00 PM	● Tour – Feedlot feed mill and Micro Beef machine room	Thorlakson Feedyard	Simon Coban, Warr

Day 3 – Wednesday, July 21st			Coordinated by Homerosky
8:00 – 12:00 AM	● Lecture – Cow-calf vaccination protocol development ● Lecture – Small Vet, Big Cow "Tips and Tricks" ● Lecture – Preventing neonatal calf diarrhea	VAHS	Homerosky
12:00 – 1:00 PM	● Lunch at Tequila and Tacos	Airdrie	
1:00 – 3:00PM	● Wetlab – Scour outbreak	Long-Run	Kevin and Amy
3:00 – 5:00 PM	● Lecture – Johne's disease investigation and mitigation strategies	VAHS	Orsel
5:00 – 6:30 PM	● Lecture – Pain management	VAHS	Rob Tremblay

Day 4 – Thursday, July 22nd			Coordinated by Crosby
8:00 AM – 3:00 PM	● Site visit and disease outbreak investigation	TBD	Janzen, Crosby
3:00 – 5:00 PM	● Disease outbreak investigation at a feedlot	Feedlot Health	Janzen, Crosby

Day 5 – Friday, July 23rd			Coordinated by Warr
7:30 – 12:30 AM	● Workshop – Management intensive grazing and sustainability	Chinook Ranch	Stephen Hughes, Janzen, Warr, Homerosky
12:30 – 1:30 PM	● Lunch at Twin Cities Hotel	Longview	
3:00 – 6:00 PM	● Wetlab – FEC and deworming on pasture ● Supper	VAHS	Sam Wauer

Week 2 – Feedlot Emphasis

Day 6 – Monday, July 26th			Coordinated by Stefaniuk
8:00 – 9:00 AM	● Group session – work on site visit report, cow-calf protocol, and cowlendar	VAHS	
9:00 – 12:00 AM	● Lecture – Cow-calf and feedlot nutrition and ration formulation; nutrition profiles of common feedstuffs; common feeding and nutrition mistakes; mineral and mycotoxin toxicities	VAHS	Barry Yaremcio
12:00 – 1:00 PM	● Lunch	VAHS	
1:00 – 4:00 PM	● Lecture – Continued from morning session ● Wetlab – Balancing rations using Cowbytes (bring a non-Mac laptop if possible)	VAHS	Barry Yaremcio, Ware
4:00 – 6:00 PM	● Lecture–Situational Leadership ● Supper	VAHS	Sheila Hillmer

* Day 7 –Tuesday, July 27th			Coordinated by DeBruin
6:00 AM – 12:00 PM	● Wetlab – Pen-riding, hospital and chronic pen management, processing, bunk management and feed delivery	Namaka	Rick Lorenz, Janzen, Warr, DeBruin
12:00 – 1:00 PM	● Lunch sponsored by Bio Agri Mix	Namaka	
1:00 – 3:00 PM	● Continued from morning session	Namaka	

* Day 8 – Wednesday, July 28th			Coordinated by Jelinski
8:00 AM – 12:00 PM	● Lecture – Diagnosis and treatment of feedlot diseases and lameness ● Lecture – Common feedlot surgeries	Namaka	Jelinski, Crosby
12:00 – 1:00 PM	● Lunch	Namaka	
1:00 – 5:00 PM	● Wetlab – Cadaver surgeries (rumenostomy, perineal urethrostomy, claw amputation, ocular exenteration and enucleation)	Namaka	Jelinski, Orsel, Olchowy, Crosby, Warr, Homerosky

*** Day 7 and 8 activities will be split; students will be divided evenly and alternate days**

Day 9 – Thursday, July 29th			Coordinated by Bennett
8:00 AM – 12:00 PM	● Student presentations – Individual projects	VAHS	All instructors
12:00 – 1:00 PM	● Parking Lot Party and BBQ	VAHS	
1:00 – 2:00 PM	● Beef cattle jeopardy	VAHS	All instructors
2:00 – 4:30 PM	● Group discussion – Cow-calf processing protocol and calendar, scour mitigation report, disease investigation report	VAHS	All instructors
4:30 – 6:30	● Lecture - Picking your first practice ● Supper	VAHS	Becky Taylor

Day 10 – Friday, July 30th			Coordinated by Ware
8:00 – 9:00 AM	● Lecture – Feedlot management and marketing	VAHS	Jelinksi, Milt Scott
9:00 – 10:00 AM	● Wetlab – Risk management		Holt Tripp
10:00 – 11:00 AM	● Wetlab – Feedlot data analytics		Jelinski
11:00 AM – 12:00 PM	● Lecture – Remote drug delivery	VAHS	Ware
12:00 – 1:00 PM	● Lunch	VAHS	Homerosky
1:00 – 2:00 PM	● Wetlab – Remote drug delivery	VAHS	Ware, DeBruin, Gordon Fike

* A student may take this rotation only once

CONTACT: Dr. Elizabeth Homerosky (elizabethh@vahs.net)

Veterinary Infectious Diseases

ROTATION CODE:	CLM
INSTRUCTORS:	Dr. J. Rubin
DURATION:	2 weeks
TIMING:	Weeks 21-22 January 31, 2022 - February 13, 2022
STUDENT NUMBERS:	12 students per rotation
DESCRIPTIVE:	Infectious disease is the most exciting and quickly evolving discipline in the medical sciences. From anti-vaxxers to Ebola outbreaks, antimicrobial resistance to whole genome sequencing professionals working in infectious diseases strive to apply evidence-based solutions to contemporary 'wicked-problems' in individuals and populations. Veterinary infectious disease lies at the intersection of microbiology and laboratory medicine, clinical pharmacology, internal medicine, epidemiology and public health and is much more than just the "ologies"! In this rotation we will cover laboratory diagnostic methods and how to interpret results, diagnostic processes including sample selection and submission, anti-infective pharmaceuticals, antimicrobial stewardship, vaccines and disease prevention, infection control, outbreak investigation and imported and foreign animal diseases. This rotation is divided into lecture + discussion (mornings) and laboratory + case studies (afternoons). The objective of this rotation is to review the fundamental concepts and develop a toolset required for the evidence-based diagnosis, treatment and management of infectious diseases in animals.

Vaccine & Infectious Disease Organization (VIDO)

(Evaluation of Vaccine Efficacy and New Vaccine Technologies)

ROTATION CODE: VID

INSTRUCTORS: Dr. P. Griebel (Co-ordinator); Drs Tikoo and Mutwiri,

DURATION: 2 weeks

TIMING: Weeks 17-18 January 4, 2022 – January 16, 2022

STUDENT NUMBERS: 2 – 5 students; Minimum number of students is 2

DESCRIPTIVE: The objective of the rotation is to critically evaluate vaccines as a tool for disease control and to design a science-based vaccination strategy. Each student will select a disease of interest and review pathogenesis to characterize the pathogen(s), route of transmission, and target population for a vaccination program. Based on this information, a vaccination program will be developed and the literature critically reviewed for evidence regarding differences in the efficacy of available vaccines. On the final day of the rotation, each student is expected to give a 15-20 minute oral presentation outlining their proposed vaccination program. A case-based format will be used to discuss the benefits and limitations of the proposed disease control strategy within the context of a specific client-patient relationship.

Course objectives will be achieved through directed reading and a review of basic concepts regarding vaccines, vaccine production, immune responses to vaccines, and the evaluation of data from vaccine clinical trials. This review will encourage students to ask critical questions regarding vaccine safety, potency, and efficacy. Specific topics for discussion will include:

1) immune responses to pathogens
2) protective versus non-protective immune responses
3) systemic versus mucosal immunity
4) types of available vaccines (killed, MLV, recombinant vectors/proteins)
5) role of adjuvants and immune stimulants in vaccines
5) neonatal vaccination
6) safety and efficacy of commercial vaccines.

Wellness and Preventative Medicine

ROTATION CODE: WPM

INSTRUCTOR: Dr. Karen Sheehan, Dr. Dayle Borchardt and Dr. Jordan Woodsworth

DURATION: 2 weeks

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 2-4 students per rotation

DESCRIPTIVE: Objectives: To provide students with a solid foundation in wellness and preventive medicine in preparation for their entry into small animal general practice. Daily activities will involve seeing wellness and vaccination appointments in the VMC, case-based topic rounds and discussions, visiting the Saskatoon SPCA, and student presentations. Communication skills, thoroughness in history taking and physical examination, and clinical efficiency will be stressed. Students will focus on their role as service provider to learn the importance of high-quality client service in a successful veterinary practice.

Rotation hours will be as follows:
Mondays: 8:30am to 5:00pm (second Monday of the rotation off in exchange for first Saturday if Saturday is a vaccination clinic)
Tuesdays: 8:30am to 5:00pm
Wednesdays: 8:30am to 5:00pm
Thursdays: 8:30am to 5:00pm (second Thursday is from 1:00 to 5:00, morning is off)
Fridays: 8:30am to 5:00pm
Saturdays (first Saturday of rotation only): 8:00am to 5:00pm

There will be no on-call or after hours duties outside of these times.

Familiarity with the VMC vaccination protocols is essential. Students should also know which parasite control products are available through the VMC Pharmacy. Attending this rotation with questions about general practice status quo is encouraged as controversies and debates surrounding conventionally accepted practices in the area of wellness (i.e., vaccines, deworming, nutrition, pet welfare, puppy and kitten wellness, behaviour problems, etc.) will be discussed.

Evaluation will be based upon assessment of clinical and communication skills, participation in rounds, quality of student presentations, attitude (willingness to learn and active participation in all aspects of the rotation), evidence of improvement throughout the course of the rotation and the ability of the student to build rapport with clients.

On completion of the rotation, students should be comfortable conducting wellness consultations, proficient in physical examination and history taking skills, and comfortable fielding questions from clients about routine preventive health care programs and screening tools.

Goals:

1. To **apply** foundational knowledge and skills in wellness and preventive medicine to the development and maintenance of a sustainable client base in general practice
2. To **demonstrate** effective communication skills during client interactions and history taking
3. To **demonstrate** clinical efficiency in a wellness practice setting
4. To **demonstrate** a high standard of relationship centered care
5. To **demonstrate** professional interactions with all supervisors, clients, staff, and peers.
6. To **demonstrate** an interdisciplinary team approach to client service, patient care and clinical efficiency
7. To be able to **discuss** controversies surrounding conventional wellness and preventive medicine
8. To critically **evaluate** standard wellness protocols (vaccination, deworming, nutrition) and their alternatives using an evidence-based approach
9. To comfortably **discuss** clinical small animal nutrition and diet-related issues with colleagues and clients
10. To **outline** the veterinarian's role as animal welfare advocate
11. To **discuss** the veterinarian's role in fostering and supporting the human-animal bond
12. To **define** 'One Health'
13. To **discuss** the veterinarian's role in addressing and supporting the interface of human and animal health in our communities (i.e. the veterinarian's role in One Health)
14. To **apply** skills learned in the rotation to mentor 3rd year students during Saturday vaccination clinics

Wild Rose Cat Clinic – Calgary

CODE: FEL

INSTRUCTORS: Dr. Elizabeth Ruelle, DABVP (Feline Practice)

DURATION: 2 weeks

TIMING:

1 – 2	August 30, 2021	–	September 12, 2021
3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
15 – 16	December 6, 2021	–	December 19, 2021
17 – 18	January 4, 2022	–	January 16, 2022
19 – 20	January 17, 2022	–	January 30, 2022
21 – 22	January 31, 2022	–	February 13, 2022
23 – 24	February 14, 2022	–	February 25 (6PM), 2022
25 – 26	March 1, 2022	–	March 13, 2022
27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	–	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 1 student per rotation

DESCRIPTIVE: Now the most popular house pet in North America, the cat is still considered a medically neglected species with less than half of all cats receiving the veterinary care they need. Through initiatives of the AAFP (Cat Friendly Practice) and now with the work of Dr. Liz O'Brien (Cat Healthy Canada) that is all changing. Welcome to the world of cat medicine!

As a feline only practice, students will be immersed in the world of cat medicine. As a general practice with a boarded specialist owner, the focus of this rotation will be on what is most likely to be encountered in small animal clinics but with an approach to medicine worthy of a specialist practice. Our clinic philosophy is on preventive care and treating diseases with the whole patient in mind. Many of our patients are senior and geriatric cats, so managing multiple diseases will be discussed. For more information about Wild Rose Cat Clinic, please check out our websites at www.catmd.ca.

The timing of the rotations for October and/or March was chosen because these are our dental awareness months. These months are typically busy with anesthetics and students can learn about feline dental pathology.

About the instructor: Dr. Liz Ruelle is a 2005 graduate from the University of Veterinary Medicine in Kosice, Slovakia. After graduation, she returned to her home town of Calgary where she started a career in feline medicine. Owner of Wild Rose Cat Clinic since 2009, Dr. Liz obtained her ABVP boards in feline practice in 2012. She is proud to be one of the authors of Cat Health Canada and an advocate for cat health and wellness.

CONTACTS: Dr. Elizabeth Ruelle (info@catmd.ca)

* A student may take this rotation only once.

Wildlife Health and Disease

ROTATION CODE:	WHD	
INSTRUCTOR:	Dr. T. Bollinger	
DURATION:	2 weeks	
TIMING:	Weeks 1-2	August 30, 2021 – September 12, 2021
STUDENT NUMBERS:	2-3 students	
PREREQUISITES:	Students who have completed VTPA 434 – Wildlife Veterinary Medicine will be given priority for this course. If there are still openings will it be offered to students without VTPA 434.	
DESCRIPTIVE:	The objectives of this course are to expose fourth year veterinary students to the techniques used in wildlife or conservation medicine and to discuss major topics related to wildlife health. This rotation is scheduled to make use of diagnostic material submitted to the Canadian Wildlife Health Cooperative and to undertake some field work, if the opportunity allows. The rotation is a mixture of wild animal necropsy, lectures and class-room discussions, and field and laboratory work if available. A list of the topics and components of the course include: important diseases of wildlife; wildlife necropsy techniques; wildlife, capture, trapping, and handling techniques; sustainable use of wildlife; and roles of veterinarians in wildlife management.	

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* A student may take this rotation only once.

Winnipeg Assiniboine Park Zoo – Zoo Practice

ROTATION CODE: WAZ

INSTRUCTOR: Dr. C. Enright

DURATION: 2 weeks

TIMING:

3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
19 – 20	January 17, 2022	–	January 30, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 2 students per rotation

DESCRIPTIVE:

Medicine: Students are expected to assist the zoo veterinarians in the delivery of preventative and emergency medicine to the animals of the Assiniboine Park Zoo. Over 1500 individuals of more than 300 species are kept at the zoo. Clinical cases may also be admitted from Wildlife Rehabilitators seeking veterinary care for their charges. A range of medical conditions are seen at the zoo hospital and our patients range in age from neonates to geriatric. Infectious, metabolic, traumatic, and nutritional disease may all be encountered. Externs will be encouraged to develop diagnostic and therapeutic plans for hospital cases under the direction of the veterinarians. As demand requires, routine medical procedures such as anesthesia, physical examinations, vaccinations, blood tests, TB tests, parasitology examinations and treatments may also be performed on clinically healthy members of the zoo population.

Surgery: The Assiniboine Park Zoo maintains a surgical site as well as equipment for field surgery as required. Surgical case load is not heavy at the zoo, but soft tissue and orthopaedic procedures may be encountered. The zoo administers a vasectomy / tubal ligation program for wild raccoons living on site and the student may have opportunities to perform these surgeries.

Pathology: The Assiniboine Park Zoo has a policy to necropsy all deceased zoo animals. The majority of necropsies are performed on site, with a proportion being referred to the provincial diagnostic laboratory. Students will have the opportunity to perform gross pathological examination and interpretation.

Anesthesia: The use of chemical restraint is instrumental in zoo and wildlife medicine. The student will be expected to gain familiarity with anesthetic equipment and drugs used in zoo practice and to assist in hospital and field anesthesias as required.

Evaluation: Students will be graded using the standard WCVM evaluation form. A sound knowledge of domestic animal medicine, surgery and pathology is a good basis for zoo practice and will be expected.

Overview of Experience:
Tour of the Assiniboine Park Zoo and Hospital
Introduction to the unique environment of zoo medicine
Safe work procedures in a zoo environment (ultrapotent opiods, novel and dangerous species, zoonoses etc)
Discussion of population versus individual medicine in a zoo environment
Discussion of Zoonoses and vet's responsibility to staff and visitors
Discussion of vaccination, parasite control and other health promotion strategies
Case management of select hospitalized animals
Discussion of quarantine, disinfection and control of infectious disease
Clinical Pathology diagnostics including fecal exams, urinalysis, skin scrape, and blood work
Discussion of interpretation and limits of diagnostic tests
Gross pathological examination and interpretation
Discussion (and dependent on timing – implementation) of neonate medicine
Physical examination of avian species, reptile species and mammalian species
Wildlife emergency medicine
Discussion of anesthetic drug selection and procedures Introduction to anesthesia, anesthetic monitoring in zoo species
Trap-vasectomize / tubal ligation-return of raccoon population
Other surgical experience
Radiography

Attire: Steel toe boots are required on site and should be disinfected prior to arrival at the zoo. Students may be required to spend periods of time out of doors working on an animal and should have clothing appropriate to the weather conditions. Coveralls should be worn while on site and should be provided by the student. Surgical scrubs are to be worn during surgeries and students should provide their own scrubs.

Hours of Work: Monday to Friday 8:00 – 4:30. Additional evening or weekend treatments or other responsibilities may arise dependent on case load and case requirements.

Recommended Reading: The zoo library contains relevant texts and journal articles and students are encouraged to make use of these resources in case management and management for disease discussions.

Housing: Students are expected to provide their own housing in Winnipeg.

Travel: Students are expected to provide their own means to come to Winnipeg.

* A student may take this rotation only once.

CONTACT: Dr. Chris Enright (cenright@assiniboinepark.ca) or (204) 927-8024

Zoological, Exotic and Wildlife Medicine I

ROTATION CODE: ZE1

INSTRUCTOR: Dr. D. Parker and Dr. I. Desprez

DURATION: 2 weeks

TIMING:

3 – 4	September 13, 2021	–	September 26, 2021
5 – 6	September 27, 2021	–	October 11, 2021
7 – 8	October 12, 2021	–	October 24, 2021
9 – 10	October 25, 2021	–	November 7, 2021
11 – 12	November 8, 2021	–	November 21, 2021
13 – 14	November 22, 2021	–	December 5, 2021
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27 – 28	March 14, 2022	–	March 27, 2022
29 – 30	March 28, 2022	-	April 10, 2022
31 – 32	April 11, 2022	–	April 24, 2022

STUDENT NUMBERS: 2 students per rotation

DESCRIPTIVE: Students will participate in the management of clinical cases involving pet birds, ferrets, rabbits, rodents and reptiles. This rotation is based heavily on clinical material, and will vary with the caseload. There is usually an opportunity for students to assist with elective surgery, such as rabbit ovariohysterectomy, orchidectomy as well as with non-elective surgeries. Wild bird patients will be also seen and students will have the opportunity to learn correct handling and management of these species. These patients are also important for the student to learn basic avian anatomy, radiograph interpretation, clinical pathology and disease management, as we often do not have large parrots present for diagnostic work-ups. The wild bird caseload is heaviest in the early fall.

One morning a week will be spent at the Saskatoon Zoo performing preventative medicine procedures and helping provide veterinary services to the zoo.

Each student will be responsible for preparing 1-2 10 minute presentations on a ZEW topic of their choice.