# Table of Contents

2019 – 2020 VINT 580 Schedule ........................................................................................................................................... 1

A. **Rotation Dates** ................................................................................................................................................. 1
B. **Objectives, Goals and Principles** .......................................................................................................................... 2
C. **Structure** ............................................................................................................................................................... 3
D. **Demonstrated Entrustable Professional Activities (DEPA)** .................................................................................. 6
E. **Evaluations** ............................................................................................................................................................. 7
F. **Upgrading a Failed Rotation** ................................................................................................................................. 7
G. **Veterinary Medical Centre Policies** ....................................................................................................................... 8
H. **Veterinary Medical Centre Biosecurity** ................................................................................................................ 10

**Externships** ............................................................................................................................................................. 11

A. **General Policies** ................................................................................................................................................... 11
B. **Responsibilities of the Student** ............................................................................................................................. 11

**Important Insurance Issues** ...................................................................................................................................... 12

A. **Liability Insurance** ............................................................................................................................................... 12
B. **Travel Accident Insurance** .................................................................................................................................. 12
C. **Medical Services and Health Insurance** ............................................................................................................... 12
D. **Disability Insurance** .............................................................................................................................................. 13

**Rotation Coordinators for 2019-2020** ..................................................................................................................... 14

**Rotation Descriptions** ............................................................................................................................................. 16

**Agwest Veterinary Group** ....................................................................................................................................... 16

**Alberta Provincial Government (Edmonton)** ........................................................................................................... 18

**Anesthesia** ................................................................................................................................................................. 20

**Aquaculture Health Management I & II - AVC** ......................................................................................................... 22

**BC Provincial Lab (Abbotsford)** ............................................................................................................................... 23

**BC SPCA Animal Welfare** ....................................................................................................................................... 24

**BC SPCA Animal Welfare – Clinical Behaviour** ...................................................................................................... 26

**Boundary Bay Veterinary Specialty Hospital** ......................................................................................................... 28

**Calgary Zoo Animal Health Center – Zoo Medicine** ................................................................................................. 32

**Canada West Veterinary Specialists – Emergency and Critical Care** ................................................................... 34

**Canada West Veterinary Specialists – Neurology** ................................................................................................. 36

**Canada West Veterinary Specialists – Surgery** ....................................................................................................... 37

**Canadian Sled Dog Races** ..................................................................................................................................... 39

**Canine Rehabilitation** ............................................................................................................................................... 40

**Cardiology – Atlantic Veterinary College** ............................................................................................................... 41

**C.A.R.E. Centre Animal Hospital ER Rotation** ...................................................................................................... 42

**Clinical Microbiology** .............................................................................................................................................. 44

**Clinical Pathology** ..................................................................................................................................................... 45

**Creekside Veterinary Service, Maple Creek – Bovine OB Rotation** ..................................................................... 46

**Creekside Veterinary Service, Maple Creek – PREG Testing Rotation** ................................................................. 47
<table>
<thead>
<tr>
<th>Specialty</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Surgery</td>
<td>2</td>
</tr>
<tr>
<td>Dermatology - Atlantic Veterinary College</td>
<td>3</td>
</tr>
<tr>
<td>Dermatology - WCVM</td>
<td>4</td>
</tr>
<tr>
<td>Dermatology - Vet Derm Clinic, BC</td>
<td>5</td>
</tr>
<tr>
<td>Diagnostic Pathology (Necropsy &amp; Clinical Pathology)</td>
<td>6</td>
</tr>
<tr>
<td>Ecosystem Health</td>
<td>7</td>
</tr>
<tr>
<td>Edmonton Valley Zoo Veterinary Hospital - Zoo Medicine</td>
<td>8</td>
</tr>
<tr>
<td>Emergency &amp; Critical Care (Clinical and Simulation)</td>
<td>9</td>
</tr>
<tr>
<td>Elders Equine - Manitoba</td>
<td>10</td>
</tr>
<tr>
<td>Equine Dentistry</td>
<td>11</td>
</tr>
<tr>
<td>Feline Rotation - Calgary</td>
<td>12</td>
</tr>
<tr>
<td>Field Service - Equine</td>
<td>13</td>
</tr>
<tr>
<td>Field Service - Ruminant</td>
<td>14</td>
</tr>
<tr>
<td>Laboratory Animal Medicine</td>
<td>15</td>
</tr>
<tr>
<td>Large Animal Imaging</td>
<td>16</td>
</tr>
<tr>
<td>Large Animal Medicine</td>
<td>17</td>
</tr>
<tr>
<td>Large Animal Surgery 2</td>
<td>18</td>
</tr>
<tr>
<td>Manitoba Swine</td>
<td>19</td>
</tr>
<tr>
<td>Maple Creek Veterinary Services - Beef Pregnancy Testing</td>
<td>20</td>
</tr>
<tr>
<td>Maple Creek Veterinary Services - Bovine Obstetrics</td>
<td>21</td>
</tr>
<tr>
<td>Medical Imaging (Radiology and Ultrasound)</td>
<td>22</td>
</tr>
<tr>
<td>Neurology</td>
<td>23</td>
</tr>
<tr>
<td>Ovcs - Dairy Cattle Welfare</td>
<td>24</td>
</tr>
<tr>
<td>OVC - Dairy Cattle Welfare</td>
<td>25</td>
</tr>
<tr>
<td>Poultry Diagnostic &amp; Field Service</td>
<td>26</td>
</tr>
<tr>
<td>Regulatory Veterinary Medicine</td>
<td>27</td>
</tr>
<tr>
<td>Remote Clinical Practice Rotation</td>
<td>28</td>
</tr>
<tr>
<td>Research &amp; Written Communication Rotation</td>
<td>29</td>
</tr>
<tr>
<td>Ruminant Neonatal Management</td>
<td>30</td>
</tr>
<tr>
<td>Saskatchewan Provincial Government (Regina)</td>
<td>31</td>
</tr>
<tr>
<td>Small Animal Medicine</td>
<td>32</td>
</tr>
<tr>
<td>Small Animal Clinical Nutrition</td>
<td>33</td>
</tr>
<tr>
<td>Small Animal Surgery 2</td>
<td>34</td>
</tr>
</tbody>
</table>
SMALL ANIMAL ELECTIVE SURGERY .................................................................................................................................98
SMALL RUMINANT .................................................................................................................................................................100
SUMMER – EMERGENCY & CRITICAL CARE ..........................................................................................................................101
SUMMER – LARGE ANIMAL 6-WEEK ROTATION .....................................................................................................................102
SUMMER RUMINANT FIELD SERVICE .................................................................................................................................103
SUMMER – UCVM EQUINE DENTISTRY .................................................................................................................................104
SUMMER - UCVM EQUINE LAMENESS ROTATION ..................................................................................................................106
SUMMER – UCVM SMALL ANIMAL DENTISTRY .......................................................................................................................107
SWINE PRACTICE - SK ..............................................................................................................................................................109
SWINE PRACTICE – IOWA (SMEC 480) ......................................................................................................................................110
TORONTO HUMANE SOCIETY SHELTER MEDICINE ROTATION ........................................................................................111
VANCOUVER AQUARIUM .......................................................................................................................................................114
VACCINE & INFECTIOUS DISEASE ORGANIZATION (VIDO) ..............................................................................................115
WELLNESS AND PREVENTATIVE MEDICINE ........................................................................................................................116
WILDLIFE HEALTH AND DISEASE .........................................................................................................................................119
WINNIPEG ASSINIBOINE PARK ZOO – ZOO PRACTICE ........................................................................................................120
ZOOLOGICAL, EXOTIC AND WILDLIFE MEDICINE I ................................................................................................................122
Western College of Veterinary Medicine

2019 – 2020 VINT 580 Schedule

A. Rotation Dates

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 2</td>
<td>September 3, 2019 – September 15, 2019</td>
</tr>
<tr>
<td>3 – 4</td>
<td>September 16, 2019 – September 29, 2019</td>
</tr>
<tr>
<td>5 – 6</td>
<td>September 30, 2019 – October 14, 2019</td>
</tr>
<tr>
<td>7 – 8</td>
<td><strong>October 15, 2019</strong> – October 27, 2019</td>
</tr>
<tr>
<td>9 – 10</td>
<td>October 28, 2019 – November 11, 2019</td>
</tr>
<tr>
<td>11 – 12</td>
<td>November 12, 2019 – November 24, 2019</td>
</tr>
<tr>
<td>13 – 14</td>
<td>November 25, 2019 – December 8, 2019</td>
</tr>
<tr>
<td>15 – 16</td>
<td>December 9, 2019 – <strong>December 20 (6PM), 2019</strong></td>
</tr>
<tr>
<td><strong>Holiday</strong></td>
<td><strong>December 21, 2019</strong> – <strong>January 5, 2020</strong></td>
</tr>
<tr>
<td>17 – 18</td>
<td>January 6, 2020 – January 19, 2020</td>
</tr>
<tr>
<td>19 – 20</td>
<td>January 20, 2020 – February 2, 2020</td>
</tr>
<tr>
<td>21 – 22</td>
<td>February 3, 2020 – February 16, 2020</td>
</tr>
<tr>
<td>23 – 24</td>
<td>February 17, 2020 – <strong>February 27 (6PM), 2020</strong></td>
</tr>
<tr>
<td><strong>Midterm Break</strong></td>
<td><strong>February 28, 2020</strong> – <strong>March 2, 2020</strong></td>
</tr>
<tr>
<td>27 – 28</td>
<td>March 16, 2020 – March 29, 2020</td>
</tr>
<tr>
<td>29 – 30</td>
<td>March 30, 2020 – April 12, 2020</td>
</tr>
<tr>
<td>31 – 32</td>
<td>April 13, 2020 – April 26, 2020</td>
</tr>
</tbody>
</table>

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.
B. Objectives, Goals and Principles

1. Objectives

The VINT 580.32 program is designed to assist students acquire the breadth of knowledge and skills to enable them to have the competence and confidence to become veterinarians at the entry level of the profession. The importance of professional conduct and life-long learning will be emphasized.

The course will allow students an opportunity to pursue areas of special interest.

2. Goals

a) Students will develop the observation and communication skills required to carry out a general assessment of animals and their environment and to collect relevant clinical information.

b) To enhance the student’s ability to handle, restrain and examine animals and to obtain samples from, perform diagnostic procedures on, and provide therapy to these animals.

c) To enable the students to develop the ability to organize, analyse and integrate information effectively in order to make rational decisions relating to the diagnosis, prognosis, management and control of diseases. The problem-oriented approach should be practised using clinical case material to develop problem-solving skills.

d) To give the students experience using the current resources (literature, textbooks, computer data bases) to obtain information about clinical cases and make rational plans for diagnosis, therapy, prevention and control of diseases. The development of these self-directed learning skills should promote an enthusiasm for life-long learning.

e) To encourage students to critically evaluate and question the veterinary literature and accepted veterinary practice.

f) To encourage consultation with specialists and to learn the indications and procedures for consultation and referral of cases.

g) To increase student awareness, through discussion and example, of the professional standards of ethical conduct and the obligations and responsibilities involved in providing veterinary care to the community.

h) To help students develop skills to communicate effectively with animal owners, support staff, colleagues and the general public.

i) To encourage student awareness of the current standards of animal welfare.

j) To enhance student awareness of business aspects and human resource management.

3. Principles

a) Students must have a sound education in the prerequisite subjects in Veterinary Medicine. This course represents the final phase of the DVM Program and further seeks to permanently entrench the motivation and skills required for independent learning. The course will strive for an appropriate balance between the technical and academic aspects of veterinary medicine.

b) The course requires that all students be exposed to a core experience relating to companion
and food animals. In addition, students will have the opportunity to select additional exposure to species and disciplines of their choice.

c) A substantial portion of the course will be taught by dedicated faculty members who will also supervise those portions of the program taught by interns and residents. The reward system of the college must be supportive of this activity. The college should provide opportunities for faculty to enhance their teaching skills and expertise in the assessment of student performance.

d) Students will be required to achieve a high standard of performance in the course to ensure that the goals of the course are being fulfilled. Student evaluation will be based on a grading system that is comprehensive, instructive and fair. Students should meet the established standards and also have the opportunity to achieve their full potential relative to the art and science of veterinary medicine.

e) The course will be supported by the Veterinary Medical Centre which will assist the clinical faculty efforts to maintain viable case-load with an appropriate balance between routine and referral cases and numbers of equine, food animal, companion animal, exotic animal and alternate livestock species.

f) The University, College and Veterinary Medical Centre will support the course by providing adequate facilities, support staff and state of the art equipment.

g) The course will be supported by high quality diagnostic laboratories.

h) The course will be continually evaluated by the 4th Year Teachers and Examiners Committee to ensure that the goals of the course are attained and that the course continues to function based upon these principles.

C. Structure

The fourth year program is 32 weeks in length and consists of one class; VINT 580.32 with one credit unit per week of each successfully completed rotation. Students are required to fulfil all requirements of rotation selections.

The course consists of a number of rotations of varying length. Most of the rotations are internal and are offered by departments or groups within the WCVM. Students may also elect external rotations and externships, which are subject to the guidelines discussed below.

Most rotations are taken during the regular academic year, but some may be taken during the summer months at times established by the instructors of those rotations. Some external rotations may also be scheduled outside the academic year with the approval of the Associate Dean Clinical Programs.

1. Mandatory Rotations

This 32 credit course is comprised of core and elective rotations. The core rotations are Anesthesia, Diagnostic Pathology, Medical Imaging, and Large Animal Surgery, Small Animal Medicine and Small Animal Surgery (Core), and a choice of Field Service Equine, Field Service Ruminant, or Wellness & Preventative Medicine which are a total of 18 weeks.

2. Internal Rotations

Internal rotations are those that are under the direct supervision of a member of the WCVM clinicians. The majority of these are taken on campus although some may require off campus travel. Costs related to travel may be at the expense of the student. The specific objectives, assignments and requirements for individual internal rotations are established by the instructors.
3. **External Rotations**

An external rotation is an off-campus rotation that the College has organized, usually in areas that are not offered at the College or in areas that are oversubscribed. These experiences are not under the direct supervision of a member of the WCVM faculty. The specific objectives, assignments and requirements for an external rotation are established by the external supervisor and are reviewed by the Associate Dean Clinical Programs. A case log and a student evaluation are a mandatory part of the rotation. All required paperwork is reviewed by the Associate Dean Clinical Programs as approved by the 4th Year Teachers Committee.

4. **Extership**

An externship is an off-campus experience organized by the student and is not under the direct supervision of a member of the WCVM faculty. Externships allow the student the opportunity to gain a greater depth of knowledge in an area of their particular interest. Applications for externships will be approved by the Fourth Year Teachers and Examiners Committee on an individual basis. The criteria and application procedure for externships is listed in the ‘Extership’ section of this manual. A case log signed by your externship supervisor and a student evaluation are a mandatory part of the rotation. All applications and the follow-up required paperwork are reviewed by the Associate Dean Clinical Programs as approved by the 4th Year Teachers Committee.

5. **Excused Absences**

In accordance with University policy, regular and punctual attendance is expected of all students at the Western College of Veterinary Medicine.

Students who are absent due to illness or other reasons must complete and submit a copy of the "Student Declaration of Absence – Clinical Rotations" form and submit it to the Associate Dean Clinical Programs or the Student Services office.

Students will not receive permission for absenteeism due to conference attending and interviews. Students must request permission from the Associate Dean Clinical Programs if they need to be absent for a portion of the rotation. Depending on the amount of time and the reasons, including excused absences, the student may be required to make up the deficiency. Absences without permission may result in failure of the rotation.

**Note:** Given the possibility that the request may not be accommodated, students should submit their request form well in advance of purchasing airline tickets or making other arrangements. All requests may take up to 48 hours to process. As such it is the student’s responsibility to notify the clinician in charge of their absence and ensure their patients’ care is transferred appropriately.

5. **Student Selection of Rotations**

Students will select the rotations of their choice in accordance with Year IV curricular requirements. Students will be scheduled according to the system approved by the Fourth Year Teachers and Examiners Committee.
6. Changes during the Academic Year

Students will be allowed two (2) rotation changes during the academic 4th year providing there are spaces available in the rotation of choice. The rotation the student is leaving must be left with sufficient student numbers to make the rotation function. This is at the discretion of the instructor in charge. All changes must be discussed and approved by the Course Coordinators in charge of the rotations. Students will be required to complete a Rotation Change Request Form. (Forms are available on the WCVM Home web page under ‘Students’ ‘Student Services’ ‘Rotations and externships’ at https://wcvm.usask.ca/documents/student-services/580-rotation-change-request-form.pdf and open the “580 Clinical Rotations Change Request Forms” link.) Change request forms should be submitted for approval at least two weeks prior to the rotation start date to Student Services in Room 4104.2.

When changing in to an external rotation, the Student Services office will handle contacting the host location to ensure that the space is still available. Please do not contact external rotations requesting new rotation seats or seats at an alternate time as these requests will be denied.

Only under very exceptional circumstances will additional spaces be created in rotations. These cases are to be discussed with the Associate Dean Clinical Programs prior to the above procedures being carried out.

Only under very extenuating circumstances will students be allowed to cancel a Summer Rotation, External Rotation or Externship. This must be discussed in detail and approved by the Associate Dean Clinical Programs.

7. AES Students

Students may register with AES at any time. Students registered with AES are required to set up an Accommodations Planning Committee Meeting to discuss any accommodations which may be required prior to the beginning of the academic year or upon registration with AES.
D. Demonstrated Entrustable Professional Activities (DEPA)

The WCVM has developed a comprehensive method of assessing clinical skills and clinical reasoning for students in the DVM Program. Demonstrated Entrustable Professional Activities (DEPA) represents one aspect of the overall process for assessing clinical skills and clinical reasoning. Below is a list of the DEPAs that are required to graduate.

1. Requirements

   a. Students:

      • All WCVM students in the final year of the DVM program will be required to successfully complete eight DEPAs as follows:
        o Anesthesia
        o Clinical Pathology
        o Anatomic Pathology
        o Surgery (LA or SA) and/or Spay
        o History (LA or SA)
        o Physical Examination (LA or SA)
        o Diagnostic Approach (LA or SA)
        o Discharge Notes (LA or SA)

      • Note: student may attempt to complete a DEPA category up to 3 times unless otherwise noted by the rotation guide.

      • If a student is unsuccessful at a DEPA/OSCE category 3 times, one supplemental DEPA opportunity will be provided during a supplemental rotation experience at the discretion of the fourth year teachers committee. All other promotion standards must be maintained to be granted this privilege. Failure of the supplemental DEPA will require the student to repeat the year.

If a student is unsuccessful at a DEPA/OSCE which is a requirement of the rotation, it will result in failure of the rotation and will follow the procedures of a rotation failure. All other promotion standards must be maintained.

• Note: student may elect to complete more than the required list

• When a student feels they are ready, they will approach an instructor and request an evaluation

• Note: While a copy of the DEPA form is available to review at the beginning of the year, at the time of an evaluation, they will not be allowed to have an evaluation sheet open as a guide.

• In addition several 580 Rotations are incorporating DEPAs as a mandatory part of their rotation

• ONCE THE EVALUATION IS COMPLETE, STUDENTS WILL OBTAIN THE WHITE COPY OF THE DEPA AND SUBMIT IT DIRECTLY TO THE WCVM STUDENT SERVICES OFFICE.

• You may check the status of your DEPA completion by logging onto your WCVM Student Profile account which can be found under the Students Menu on the WCVM website or https://wcvmweb.usask.ca/prd/aStudent/login.aspx

b. Instructors:

• Instructors should make every effort to accommodate a request for an evaluation. However; if the circumstances are not appropriate (e.g. emergency case, late at night) an alternative time/case can be arranged.

• Following an evaluation, students should be provided with the appropriate feedback at the completion of the DEPA whether it is successful or unsuccessful.

• Instructors must complete the evaluation form at the time the DEPA is delivered.
• Completed DEPAs (successful or unsuccessful):
  o The white copy is to be given to the student who must deliver it to the WCVM Student Services office.
  o The yellow copy is retained by the department

E. Evaluation

1. Grading

Instructors will be responsible for evaluating students on their rotation and for assigning a grade. A copy of the grading form for each rotation is available to each student at the beginning of each rotation so they can become familiar with the criteria used in the evaluation procedure. Factors used in student assessment include case discussions, small group tutorials, observation of student performance, attitude and performance of assignments, which may include a written test. It is possible for students to fail a rotation based entirely upon failure of only one rotation requirement. The individual rotation grades are used to calculate a final grade for the VINT 580.32 course. Individual grades will be weighted according to the length of the rotation and a weighted average calculated.

2. Promotion Regulations

a) A minimum grade of 50% is required in each rotation and a cumulative average of 60% is required for successful completion of the VINT 580.32 course. **Note – It is possible to fail the entire rotation by failing to meet the competency in just one section.

b) A student obtaining less than 50% in a rotation will be deemed to have failed the rotation. The student will be given the opportunity to improve their grade in that rotation to a passing level as outlined in ‘Section F’ of this handbook. This privilege will be granted only once for the entire academic year. Failed rotations are required to be successfully completed at a time arranged by the student services office and the rotation coordinator following successful completion of all other VINT 580 components.

c) Failure to successfully upgrade the rotation in accordance with #b above, failure of a second rotation or, failure to obtain a weighted average of 60% constitutes failure of the course.

d) Students who receive a failing grade will be required to meet with the Associate Dean Clinical Programs.

e) Grades for individual rotations will be recorded in the Student Services office and will be made available to students for the purpose of job applications, etc.

f) Failure of a four week rotation will result in the student not being able to graduate with their class in the Spring Convocation as graduate requirements will not be met prior to University deadlines.

g) In order to complete the final year, students must also successfully complete all the required Demonstrated Entrustable Professional Activities (DEPAS – previously final year OSCEs).

F. Upgrading a Failed Rotation

A student who obtains a grade of less than 50% on the rotation will be deemed to have failed the rotation. Students failing a rotation will have the opportunity to improve their grade by repeating the rotation at a time determined by the rotation coordinator in consultation with the student services office and Associate Dean Clinical Programs once all other grades have been submitted. Failure of an
external rotation will be result in the opportunity to improve their grade by a rotation hosted within the WCVM.

A failure in a rotation may result in a student being unable to participate in the spring Convocation.

Appeals of evaluation, grading, and academic standing are governed by university-wide council regulations.

G. Veterinary Medical Centre Policies

Further to the information listed below, VMC policies can be found in the VetNet system.

1. VMC Dress Code

   Students are expected to dress professionally in accordance with their respective rotations. Clean white laboratory coats or coveralls and nametags must be worn. Clean blue lab coats are worn when dressed in surgery scrubs and leaving the hospital area. WCVM picture identification badges must be worn at all times. Clothing and shoes/boots should be neat and clean. No blue jeans or shorts are permitted. Footwear is to be closed toe and heel. Baseball caps are not acceptable for in-clinic rotations. Students will be interacting with the public so a professional appearance must be maintained at all times.

2. VMC Medical Records & Client Confidentiality

   The health record of any patient of the VMC is a legal document. In addition, all matters related to a patient’s record and clinical condition are strictly confidential and may be communicated only among VMC staff and students involved in the care of the animal (including participants in rounds and other classes) and to the animal’s owner or their authorized agent. Students have access to information (client financial/personal) within our computer database, which is also highly confidential. This information is not to be disclosed to anyone for any reason other than those stated above.

3. Large Animal Stall Safety Protocol

   You should never enter a stall alone when there is no one else in the Large Animal Clinic. Whenever possible there should be an individual observing should they have to help or go get help in case of an emergency. Students may request assistance from the Large Animal after hours Technologist, rotating intern, other support staff/students, or ICU Technologist when needed. Should they be unavailable the student on second call must be called to assist.

4. Hospital Residence

   The Hospital Residence is locked at all times. Residence is only to be used by students for stays required during rotations.

   Students need to clearly understand that dogs are prohibited from the Hospital Residence. As students within the VMC, you have a responsibility to ensure that dogs are not allowed in the residence.

   Our janitorial staff takes pride in maintaining their areas of responsibility, including the Hospital Residence. Please assist them in keeping your residence as clean as possible.

   During 4th Year rotations, there are times when students are required to stay on campus. The VMC provides residences for students for those days. This area is similar to residences that are typically found on college campuses for students.
Individual rooms are furnished with a single bed, pillow, bed linens and blankets. Mattresses are covered with protective sheets to decrease the possibility of bedbug infestations and bed bug screening is done every two weeks. Each student is responsible for making his/her own bed with one flat sheet tucked under the mattress in place of a fitted sheet. Janitorial staff members are NOT responsible for making beds, changing linens or washing dishes. In order to have linens or blankets washed, students are responsible for stripping the beds and placing linens into the laundry bins and fresh linens will be restocked by the VMC staff. Students may wish to provide their own pillows and sleeping bag as desired.

Rooms also contain a desk, closet, and sink. You are responsible for keeping these areas clean during your stay. There are also lamps and clocks in the rooms which have been provided by the WCVSA.

Students on farm rotations are required to remove dirty foot wear and overalls before entering the residences. Carpets and upholstery, as well as beds, tend to hold these odors and by removing these clothing items it will help keep the residences from being malodorous.

The common area is to be kept clean. There is no maid service in these residences: they are to be treated as your own space and it is up to you to put away clothes and books. The kitchen is to be kept clean! Dishes are to be washed as soon as possible, any spills are to be cleaned up, and cupboards and fridges are to be kept clean of crumbs, spills, and spoiled food. There is a fridge, stove, microwave, and kettle for your use. These are also your responsibility to be kept clean and in good working order for other students.

There are three bathrooms: one with a small shower, one with a large shower, and one with a bathtub. These areas are also expected to be kept free of excessive dirt and mud. Toilet paper is supplied by the VMC but each student is to provide their own towels.

Janitorial staff are only responsible for general maintenance, including cleaning the bathrooms and sinks, and vacuuming the floors. It is up to you to make their job as easy as possible by not tracking in mud or manure, keeping your areas free of excessive dirt and mess, and cleaning the kitchen and generally taking care of the residence.

If there are concerns they should be relayed to the appropriate person so that these can be addressed. Nebulous complaints passed between students cannot be dealt with if those with the ability to resolve the issue are not informed. Problems can be sent via email or in person to Susan Cook, susan.cook@usask.ca.
H. Veterinary Medical Centre Biosecurity

We can enhance the biosecurity within the VMC by making a few simple practices part of our routine. The easiest practice/habit we can adopt that will make a significant difference is hand washing.

A comprehensive infection control policy is under development and will be effective as soon as it is posted in the VetNet system.

1. Hand Washing
   - Wash hands before and after touching each animal

2. Small Animal Clinic
   - Hand washing as above
   - Abide by hospital dress code
   - Surgery Scrubs with blue lab coat
   - Proper footwear
   - Rectal sleeves on thermometers
   - Disposable leashes
   - Isolation for respiratory, GI & other infectious diseases
   - **No eating/drinking at any time in restricted clinic areas as posted**
   - If you have any questions, speak with the clinician immediately

3. Large Animal Clinic
   - Hand washing as above
   - New hand washing stations
   - **No eating/drinking at any time in restricted clinic areas as posted**
   - Any animal admitted with diarrhea goes immediately to isolation
   - Proper footwear
   - Do not wear coveralls and dirty footwear in rest of building
   - If you have any questions, speak with the clinician immediately

4. Posted Protocols

   Follow protocols specific to given area or case as posted, including:
   - food/drink in restricted areas.
   - Isolation, Small Animals
   - Isolation, Large Animals
   - MRSA
EXTERNSHIPS

For complete Externship details refer to the ‘Externship Program Policies and Procedures’ booklet.

Definition: An externship is a rotation that occurs away from the WCVM and is under the supervision and responsibility of someone other than a WCVM faculty member.

A. General Policies

1. Arrangements for travel must be such that they have no effect on the adjacent rotations. These arrangements should be discussed with the instructors involved before being finalized.

2. Only under very extenuating circumstances along with a detailed discussion with the Associate Dean Clinical Programs will a student be allowed to cancel an Externship.

B. Responsibilities of the Student

1. While away on an externship students should consider themselves representatives of the WCVM and conduct themselves in a manner that will reflect positively on the College.

2. All costs and arrangements for travel, accommodation and food are the student's sole responsibility.

3. The International Student and Study Abroad Centre (ISSAC) office will be in contact with all students to provide them with all necessary requirements prior to travel. Failure to complete the appropriate ISSAC documentation may result in cancellation of your travel.

4. Prior to leaving, students should ensure they have reviewed all relevant lecture material and reviewed procedural and technical skills.

5. Ensure they have the appropriate protective clothing and footwear plus basic equipment such as stethoscope, thermometer, etc.

6. During the externship students must maintain a case/activity log that upon completion of the rotation must be verified by the Externship Supervisor. It is the student’s responsibility to submit the case/activity log and evaluation form within two weeks of returning to the College.

7. Upon return, students must complete and submit a written rotation evaluation form which is completed through the student portal. The completed form provides an area for feedback on the experience which should outline the adequacy and variety of the case load, the level of supervision received, extent to which the original objectives were met, other learning experiences available such as journals and reference material, etc.

8. In some cases (zoos as an example) students are required to have current vaccinations against certain zoonotic diseases. It is the student’s responsibility to inquire about these types of requirements.
IMPORTANT INSURANCE ISSUES

A. Liability Insurance

1. University of Saskatchewan Students

The liability policy includes “professional services” coverage which protects the students from lawsuits or claims which may arise in respect to any professional activity related to the discipline in which they are so registered, in furtherance of their education or training in such discipline.

The University of Saskatchewan’s professional liability insurance policy covers all registered students while in pursuit of their academic requirements within Canada, performing any duty or taking part in any activity which is considered part of regular or extraordinary studies connected with the University. This policy then will be effective if you are on an approved externship, under approved supervision.

For externships outside of Canada professional liability coverage may not be applicable or strictly limited. Coverage is not applicable to students doing their externships or placements in the USA. Students are advised not to place themselves in situations where their coverage may be compromised. Any agreements with the host institution or business must be approved by the WCVM to ensure they comply with U of S policy and signing authority. The supervisor in charge of your externship will be notified of this coverage.

2. Non-University of Saskatchewan Students

If a student visits the University of Saskatchewan from another institution, they must provide a Certificate similar to that mentioned above since there is no coverage provided by the University of Saskatchewan for these students. The University’s Office of Risk Management and Insurance Services should be informed of such visitors and receive a copy of the Certificate of Insurance.

B. Travel Accident Insurance

Travel Accident Insurance is provided by the University for students travelling on University business. This insurance covers the trip (“in-transit”) portion only. Once you have arrived at your destination the coverage no longer applies. The University’s Office of Risk Management and Insurance Services must be provided with written details of the travel itinerary prior to the trip taking place. The following information should be provided: Student name(s), destinations, dates and a brief description of the purpose of the travel.

The student or instructor must complete and have approved the “Authority to Travel” form for all out-of-province travel relating to their undergraduate or graduate program.

C. Medical Services and Health Insurance

The University does not provide any insurance coverage of this sort. You are encouraged to make sure that your provincial health plan covers you for your medical and health services costs while you are attending the University of Saskatchewan. (DVM students should also ensure that their provincial health plans provide coverage at elective and externship locations).

If you are travelling outside of Canada, it may be advisable to purchase additional health care insurance.

All full-time students are automatically enrolled in the USSU Student Health & Dental Plan. The maintenance and adequacy of such coverage is the responsibility of the student.
D. Disability Insurance

Disability insurance is not provided.

Note: Other types of insurance such as disability insurance or life insurance are not provided to undergraduate or graduate students by the University of Saskatchewan. For example, if you are permanently or temporarily disabled while pursuing your academic program or while working in the Clinics, the University does not provide for disability insurance (or for life insurance).

For information regarding the purchase of disability or life insurance, consult your insurance broker. A CVMA package is available for veterinarians; for more information contact the CVMA.
Agwest Veterinary Group ................................................................. Dr. L. MacLeod
Alberta Provincial Government (Edmonton) .................................. Dr. H. Ortengon
Anesthesia ....................................................................................... Dr. T. Duke
Aquaculture Health Management I & II – AVC ............................. Dr. J. Davidson
BC Provincial Lab (Abbotsford) ......................................................... Dr. G. McGregor
BC SPCA Animal Behaviour ........................................................... Dr. K. van Haaften
BC SPCA Animal Welfare ............................................................... Dr. E. Gordon
Boundary Bay Veterinary Specialty Hospital ................................. Dr. G. Hutchinson
Calgary Zoo Animal Health Center – Zoo Medicine ................... Dr. D. Whiteside
Canada West Veterinary Specialists – Emergency & Critical Care Drs C. Bandt/T. Cheng/T. Enberg
Canada West Veterinary Specialists – Neurology ......................... Drs. N. Sharp & M. Higgins
Canada West Veterinary Specialists – Surgery ............................. Dr. King
Canadian Sled Dog Races .............................................................. Dr. K. Robinson
Canine Rehabilitation ................................................................... Dr. R. Pinto/C. Shmon
Cardiology – Atlantic Veterinary College .................................... Dr. E. Coté
C.A.R.E. Centre Animal Hospital ER Rotation ............................ Dr. J. Murray
Clinical Microbiology ................................................................. TBA
Clinical Pathology ......................................................................... Dr. R. Dickinson
Creekside Veterinary Service ....................................................... Dr. L. Runnion
Dairy Production Medicine .......................................................... Dr. C. Luby
Dentistry ......................................................................................... Dr. C. Lowe
Dermatology – AVC ...................................................................... Dr. C. Pye
Dermatology – WCVM ................................................................. Dr. A. Foster
Dermatology – Vet DERM Clinic .................................................. Dr. J. Bajwa
Diagnostic Pathology ................................................................. Drs. E. Aburto and R. Dickinson
Ecosystem Health ......................................................................... Dr. T. Epp
Edmonton Valley Zoo Veterinary Hospital – Zoo Medicine ........ Dr. M. J. Limoges
Elders Equine – Manitoba ............................................................. Dr. C. Bell
Emergency & Critical Care (clinical and simulation) .................... Dr. J. Loewen
Equine Dentistry ......................................................................... Dr. K. Robinson/M. Husulak
Feline Rotation ................................................................. Dr. E. Ruelle
Field Service - Equine .............................................................. Dr. K. Robinson
Field Service - Ruminant ........................................................... Dr. C. Luby/N. Erickson
Iowa Swine Practice .................................................................. Dr. J. Harding
Laboratory Animal Medicine ....................................................... Dr. C. Kashuba
Large Animal Medical Imaging .................................................. Dr. C. Clark
Large Animal Medicine ............................................................. Dr. J. Montgomery
Large Animal Surgery 2 ............................................................... Dr. S. Barber
Manitoba Swine ................................................................. Drs. J. Harding and B. Tully
Maple Creek Veterinary Services ........................................... Dr. K. Wasilow
Medical Imaging ................................................................. Dr. G. Starrak
Neurology ........................................................................... Dr. D. Zwueste
Okotoks Feedlot Health Management and Beef Cattle Practice ... Dr. J. Campbell/ N. Erickson
Oncology ............................................................................. Dr. J. Gagnon
Ophthalmology ................................................................... Dr. L. Sandmeyer
OVC – Dairy Cattle Welfare .................................................. Dr. D. Haley/ T. Duffield
Poplar Valley Animal Clinic .................................................. Dr. W. Haley/ T. Duffield
Poultry Diagnostic & Field Service ....................................... Dr. S. Gomis
Remote Clinical Practice ...................................................... Dr. J. Woodsworth
Research and Written Communication ............................... Dr. L. Snead
Ruminant Neonatal Management ......................................... Dr. D. Dardarwal
Saskatchewan Provincial Government (Regina) ..................... Dr. B. Althouse
Small Animal Medicine ...................................................... Dr. K. Cosford
Small Animal Nutrition ...................................................... Dr. T. Owens
Small Animal Surgery 2 ...................................................... Dr. C. Shmon
Small Animal Surgery - Electives ....................................... Dr. K. Hunt
Small Ruminant ................................................................... Dr. C. Clark
Summer – Ruminant Field Service ....................................... Dr. C. Luby/ N. Erickson
Summer – Emergency & Critical Care .................................... Dr. J. Loewen
Summer – Field Service – Equine ........................................ Dr. S. Manning
Summer – Large Animal Medicine ........................................ Dr. J. Montgomery
Summer – Large Animal Surgery .......................................... Dr. S. Barber
Summer – Theriogenology .................................................... Dr. C. Card
Summer – UCVM Equine Dentistry ....................................... Dr. R. McCorkell
Summer – UCVM – Equine Lameness ................................... Dr. R. McCorkell
Summer – UCVM – Small Animal Dentistry ........................ Dr. R. McCorkell
Swine Practice – WCVM ..................................................... Dr. J. Harding
Toronto Humane Society ..................................................... Dr. D. Boes/ Dr. K. Ward
Vancouver Aquarium ........................................................... Dr. M. Haulena
VIDO .................................................................................. Dr. P. Grieble
Wellness and Preventative Medicine .................................... Dr. K. Sheehan/ J. Woodsworth
Western Canada Veterinary Eye Specialists ........................ Dr. C. Keller
Wildlife Health and Disease ................................................ Dr. T. Bollinger
Winnipeg Assiniboine Park Zoo – Zoo Practice ..................... Dr. C. Enright
Zoological, Exotic and Wildlife Medicine I .......................... Dr. D. Parker
ROTATION DESCRIPTIONS

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: Weeks 21-22 February 3 – February 16, 2020

STUDENT NUMBERS: 2 students per rotation

DESCRIPTION: Animal Health and Assurance Branch is responsible for developing and maintaining legislation and policies relating to livestock health and food safety in the province. This rotation will be designed to familiarize the student with the role of veterinarians in provincial government as it relates to livestock health and food safety.

The students will be provided insight into the development of legislation and policy relating to animal health and welfare and food safety and surveillance activities conducted by technical team to mitigate risks to international and local 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. 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 Section, Livestock Traceability Section and Animal Welfare/National Traceability Section.

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

Our team has worked on Salmonella Enteriditis and ILT in poultry and Salmonella Typhimurium and Dublin outbreaks and lead toxicity cases in cattle. Other disease investigations investigated have been abortions in cattle, 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.

The Branch has three post-mortem facilities located around the province with pathologists on staff in Airdrie and Edmonton.

The Branch is also very active in Chronic Wasting Disease surveillance in farmed and wild cervids.

CONTACT:  
Dr. Hernan Ortegon (hernan.ortegon@gov.ab.ca)  
Dr. Madhu Ravi (madhu.ravi@gov.ab.ca)
Anesthesia

ROTATION CODE: ANE

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

DURATION: 4 weeks

TIMING:

1 - 4 September 3, 2019 – September 29, 2019
5 – 8 September 30, 2019 – October 27, 2019
9 – 12 October 28, 2019 – November 24, 2019
13 – 16 November 25, 2019 – December 20 (6PM), 2019
17 – 20 January 6, 2020 – February 2, 2020
21 – 24 February 3, 2020 – February 27 (6PM), 2020
29 – 32 March 30, 2020 – April 26, 2020

STUDENT NUMBERS: 9-10 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.
Aquaculture Health Management I & II - AVC

ROTATION CODE: AQUA

INSTRUCTORS: Drs. J. Davidson

DURATION: 2 weeks

TIMING: Summer: April 29 – May 12, 2019

STUDENT NUMBERS: 1 student

DESCRIPTIVE: The student is required to take both VHM 4040 and VHM 4050

VHM-4040 AQUACULTURE HEALTH MANAGEMENT I
Rotation Coordinator: Dr. Jeff Davidson (davidson@upei.ca)
This rotation provides students with an opportunity to work on population-based problems of clinical relevance and to develop the problem-solving, data management, and information processing skills necessary to address current health and production problems of fish farms and lobster holding units. One week in duration.

VHM-4050 AQUACULTURE HEALTH MANAGEMENT II
Rotation Coordinator: Dr. Jeff Davidson (davidson@upei.ca)
In this second rotation, students further develop the knowledge and skills necessary to address current health and production problems with fish farms and lobster holding units as encountered in VHM-4040. One week in duration.
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** September 3, 2019 – September 15, 2019
- **3 – 4** September 16, 2019 – September 29, 2019
- **5 – 6** September 30, 2019 – October 14, 2019
- **7 – 8** October 15, 2019 – October 27, 2019
- **9 – 10** October 28, 2019 – November 11, 2019
- **11 – 12** November 12, 2019 – November 24, 2019
- **13 – 14** November 25, 2019 – December 8, 2019
- **15 – 16** December 9, 2019 – December 20 (6PM), 2019
- **19 – 20** January 20, 2020 – February 2, 2020
- **21 – 22** February 3, 2020 – February 16, 2020
- **23 – 24** February 17, 2020 – February 27 (6PM), 2020
- **25 – 26** March 3, 2020 – March 15, 2020
- **27 – 28** March 16, 2020 – March 29, 2020
- **29 – 30** March 30, 2020 – April 12, 2020
- **31 – 32** April 13, 2020 – April 26, 2020

**STUDENT NUMBERS:** 1 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 Wildlife Health, Avian Health, Fish Health, and Marine Mammal 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

ROTATION CODE: BCA

INSTRUCTORS:
Dr. Emilia Gordon (Senior Manager, Animal Health)
Mandi Idle, RVT (Animal Health Coordinator)
Ms. Carrie Brulotte (Hospital Administrator)

DURATION: 2 weeks

TIMING:
- Weeks 13 – 14: November 25, 2019 – December 8, 2019
- Weeks 19 – 20: January 20, 2020 – February 2, 2020

STUDENT NUMBERS: 2 students per rotation

DESCRIPTIVE:
Open to all senior year veterinary students interested in the welfare of animals and prepared to spend two weeks in a tightly scheduled, demanding but highly informative rotation.

Goals:
1. To provide hands-on medical, clinical behaviour, and animal welfare experience.
2. To demonstrate recent advances in animal sheltering that reduce stress, promote health and increase adoption success.
3. To provide practical experience on enforcement of animal cruelty laws.
4. To share the many activities and programs at the BC SPCA with future veterinarians.
5. To invite future veterinarians to be part of the solution for a humane society.

Components:
1. HOSPITAL – SURGERY AND MEDICINE: work alongside veterinarians and veterinary technicians at a busy not-for-profit hospital (working with both public and shelter patients). This is not a surgery rotation and students generally do not get to do surgery but students with interest and ability may have the opportunity to spay and neuter shelter animals.
2. SHELTER RVT – VANCOUVER: work directly with the shelter veterinary technician assisting in the day-to-day duties of intake physical assessment, disease prevention and management, sanitation, animal welfare etc.
3. ANIMAL PROTECTION OFFICER (APO) RIDE-ALONG: accompany a Special Provincial Constable from the Cruelty Investigations Dept. as they carry-out their daily duties.
4. CHARLIE’S FOOD BANK: participate in an outreach program at Canada’s poorest postal code working to help pets of vulnerable individuals.
5. BEHAVIOUR & WELFARE:
   i. Work with the Manager, Behaviour and Welfare and learn about welfare monitoring, daily rounds, and active population management for optimal health and welfare in sheltered animals.
   ii. Work with the Senior Manager, Behaviour and Welfare on clinical behaviour cases.
6. PROVINCIAL OFFICE: KEY BC SPCA PROGRAM MEETINGS:
   i. “SPCA CERTIFIED” – meet with staff working on farm animal welfare initiatives including food labeling program.
ii. CRUELTY INVESTIGATIONS DEPT – meet with the Chief Prevention and Enforcement Officer to discuss animal cruelty issues and cases.

iii. SCIENTIFIC PROGRAMS – meet with staff working on scientific programming including wildlife and animals in science.

iv. BC PET REGISTRY – meet with staff working on the provincial pet identification (microchip) registry.

v. HUMANE EDUCATION – gain an overview of provincial programs and goals.

vi. POLICY & OUTREACH – meet with staff working in advocacy, spay/neuter programs, and outreach.

7. SPECIAL EVENTS: unscheduled opportunities (e.g. natural disaster, large scale cruelty seizures) may be worked into the rotation and thus displace scheduled components.

8. DEPT OF ANIMAL WELFARE – UBC (OPTIONAL, can be arranged): visit and interact with Faculty and students while being briefed on their current research.

Students are responsible for arranging their own transportation and accommodation. Some assistance in finding accommodation may be available through the Supervisors.

* A student may take either this rotation OR the BC SPCA Animal Welfare- Clinical Behaviour rotation only once unless special arrangements are made.

Note: Students interested in doing an unofficial externship on their own time (e.g. summer) may contact Dr. Gordon directly.

CONTACTS: Dr. Emilia Gordon Ms. Carrie Brulotte
(604) 709-4657 (604) 709-4655
egordon@spca.bc.ca cbrulotte@spca.bc.ca

Ms. Mandi Idle
(236)333-9602
midle@spca.bc.ca
BC SPCA Animal Welfare – Clinical Behaviour

ROTATION CODE: BCB

INSTRUCTORS: Karen van Haaften, DVM, DACVB (Senior Manager, Behaviour & Welfare)
Ms. Carrie Brulotte, RVT (Hospital Administrator)

DURATION: 2 weeks

TIMING:

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 – 14</td>
<td>November 25, 2019</td>
<td>December 8, 2019</td>
</tr>
<tr>
<td>19 – 20</td>
<td>January 20, 2020</td>
<td>February 2, 2020</td>
</tr>
</tbody>
</table>

STUDENT NUMBERS: 2 students per rotation

PREREQUISITES: Completion of VSAC 478 (Third Year Small Animal Behaviour Elective)

DESCRIPTIVE: This rotation will allow students to participate in a wide variety of BC SPCA clinical, shelter, and programming experiences, with a focus on behavioural medicine. This fast-paced 2 week will involve working in a wide variety of environments with rotating mentorship.

Core Components:

- **Behavioural Medicine**: work alongside Senior Manager, Behaviour & Welfare on clinical behaviour cases in the shelter, in foster homes, or post-adoption.
- **Shelter Animal Welfare**: work with the Manager, Behaviour and Welfare and learn about welfare monitoring, daily rounds, and active population management for optimal health and welfare in sheltered animals.
- **Hospital – Surgery & Medicine**: work alongside veterinarians and veterinary students at a busy not-for-profit hospital (working with both public and shelter patients); students with interest and ability may have the opportunity to spay and neuter shelter animals (but this is not a surgery rotation)
- **Shelter RVT**: Vancouver: work directly with shelter veterinary technician assisting with the day-to-day duties of intake physical assessment, disease prevention and management, sanitation, animal welfare, etc.
- **Animal Protection Officer (APO) Ride-Along**: accompany a Special Provincial Constable from the Cruelty Investigations Dept. as they carry-out daily duties.
- **Charlie’s Food Bank**: participate in an outreach program at Canada's poorest postal code working to help pets of vulnerable individuals.
- **Provincial Office**: Key BC SPCA Program Meetings:
  - AnimalKind: meet with staff working on accreditation programs for unregulated animal-related industries, including dog trainers and pest control companies
  - SPCA Certified: meet with staff working on farm animal welfare initiatives including food labeling program
  - Cruelty Investigations Department: meet with the Chief Prevention and Enforcement Officer to discuss animal cruelty issues and cases.
- Scientific Programs: meet with staff working on BC SPCA scientific programming including community cats, wildlife, and animals in science
- BC Pet Registry: meet with staff working on provincial pet identification (microchip) registry.
- Humane Education: gain an overview of provincial programs and goals
- Stakeholder Relations: meet with staff working in advocacy, spay/neuter programs, and outreach.

Possible Components (depending on rotation timing & availability):
- **Private Practice Clinical Behaviour**: work alongside a local veterinarian with a busy clinical behaviour caseload in Greater Vancouver.
- **Dog Training Classes**: assist with dog training classes occurring at the BC SPCA branch, or run by AnimalKind Accredited professional dog trainers in Greater Vancouver.
- **Special Events**: unscheduled opportunities (Eg. natural disaster, large-scale cruelty seizures) may be worked into the rotation and thus displace scheduled components.
- **Dept of Animal Welfare – UBC (Optional, can be arranged)**: visit and interact with the Faculty and students while being briefed on their current research.

Students are responsible for arranging their own transportation and accommodation for this rotation.

* A student may take either this rotation OR the BC SPCA Animal Welfare- Clinical Behaviour rotation only once unless special arrangements are made.

Contacts:

Karen van Haaften, DVM, DACVB  
kvanhaaften@spca.bc.ca  
(604) 709-4671, ext. 1114

Carrie Brulotte, RTV  
cbrulotte@spca.bc.ca  
(604) 709-4655
Boundary Bay Veterinary Specialty Hospital

ROTATION CODE: BBS

INSTRUCTORS:
- Dr. Geoffrey Hutchinson, DVM, MS, DACVS
- Dr. Kathy Rowe-Guthrie, DVM, MS, DACVS
- Dr. Sarah Charney, DVM, DACVIM (O), DACVR (RO)
- Dr. Chamisa Herrera, DVM, DACVIM(O)
- Dr. Peter Gordon, DVM, DACVIM (N)
- Dr. Astrid Niellens, DVM, MVSc, DACVIM (IM)
- Dr. Evan Crawford, DVM, MSc, DVS, DACVS
- Dr. Tiffany Jagodich, DVM, DVS, DACVECC
- Glenn Pepito, BScPT

DURATION: 2 weeks

TIMING:
- 1 – 2 September 3, 2019 – September 15, 2019
- 3 – 4 September 16, 2019 – September 29, 2019
- 9 – 10 October 28, 2019 – November 11, 2019
- 11 – 12 November 12, 2019 – November 24, 2019
- 13 – 14 November 25, 2019 – December 8, 2019
- 19 – 20 January 20, 2020 – February 2, 2020
- 23 – 24 February 17, 2020 – February 27 (6PM), 2020
- 31-32 April 13, 2020 - April 26, 2020

STUDENT NUMBERS: 1 student per rotation

DESCRIPTIVE:

Objective:
To increase the 4th year student’s understanding of advanced diagnostic evaluation and treatment options available at specialty practices; students will rotate through the services (Surgery, Neurology, Internal Medicine, Diagnostic Imaging, Oncology and Emergency/Critical Care) based on caseload, clinician availability, interest and aptitude as assigned by the Attending Clinicians.

Specific Goals:
- Multi-disciplinary approach to diagnostic evaluation and patient care
- Development of critical case assessment skills
- Development of diagnostic protocols appropriate to specialty practice
- Application of appropriate diagnostic techniques and a multidisciplinary approach in workup of a variety of cases
- Advanced technical skills

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 inpatients of their assigned service (i.e. Internal Medicine, Surgery, Neurology, Oncology and Emergency/Critical Care) each morning of the rotation and discuss the case with the Attending Clinician regarding treatment plans.

Each student is expected to prepare for any scheduled surgery or procedure they plan to observe, by reading appropriate texts and journal articles.
Students will be expected to scrub in to assist in surgical procedures at the clinician’s discretion.

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

**BBVSH Specialty Practice-Departmental Descriptions & Expectations:**

**Neurology - Description and Expectations:**
As the neurological caseload can be quite varied, the specific cases that the student may be exposed to can be unpredictable. However, common conditions involving movement disorder, pain, seizure activity and paresis are frequently encountered. Emphasis will be placed on patient care, client communication, neurological examination and evaluation of diagnostic imaging modalities. Following the completion of the rotation, the student should be able to complete a thorough neurological examination and be comfortable with basic neurological lesion localization.

**Diagnostic Imaging - Description and Expectations:**
The caseload for Diagnostic Imaging can be quite varied. Students can expect to be exposed to a variety of diagnostic imaging methods; that could include CT, Ultrasound and MRI. Students are encouraged to participate in case evaluation and treatment planning with other services in the hospital. As cases are presented for DI, the goal for the student is to learn systematic approach to radiograph reading for thorax, musculoskeletal, and abdomen. This will include learning the basics of radiographic description and review the related anatomy. Additional reading will be encouraged to facilitate learning to recognize normal from abnormal. If time permits, basic ultrasound examination will be discussed and demonstrated. We encourage the students to request any additional topics or specific learning objectives not included in the outline above.

**Surgery - Description and Expectations:**
As the surgical caseload can be quite varied, the specific cases that the student may be exposed to can be unpredictable. However, commonly treated orthopedic problems are fractures and developmental and acquired orthopedic joint disease. Frequent soft tissue surgeries include foreign body removal, removal of tumors, splenectomies, and surgeries for airway disease. Specific techniques include arthroscopy, laparoscopy, hip replacement, and cruciate ligament repair. Emphasis will be placed on patient care, client communication, examination of body systems including thorough orthopedic exams and evaluation of diagnostic imaging modalities. Following the completion of the rotation, the student should be able to complete a thorough physical exam including a full orthopedic examination and be comfortable with basic differential diagnoses for orthopedic and soft tissue conditions. The student should become familiar with the indications for surgery, the basic concepts of treatment and follow-up for common surgical diseases, and the expectations for outcome following surgical treatment.

**Oncology - Description and Expectations:**
As the oncology caseload can be quite varied, the specific cases that the student may be exposed to can be unpredictable. However, commonly encountered neoplastic diseases include lymphoma, mast cell tumor, soft tissue sarcoma, osteosarcoma, and hemangiosarcoma. Emphasis will be
placed on understanding differential diagnoses for tumors, methods to obtain definitive diagnosis, treatment options and prognosis. Following the completion of the rotation, the student should be able to complete a thorough physical exam and identify abnormal areas. In addition, the student should know how to diagnose and treat common oncological diseases.

**Internal Medicine - Description and Expectations:**
The caseload can be quite varied but includes immune-mediated disease, hematology, endocrinology, respiratory, gastroenterology, urology, and infectious disease cases referred from primary care clinics. Students will participate in the management of internal medicine cases from the initial case review, patient assessment, and client communication through to the evaluation of clinical findings, formulation of appropriate diagnostic and management plans, observation of diagnostic procedures, interpretation of diagnostic findings, and continued case follow up. Objectives of the rotation include developing the skills of practical application of veterinary knowledge to identify, diagnose and manage medical diseases of dogs and cats.

**Animal Rehabilitation - Description and Expectations:**
The caseload can be quite varied but includes pre and post surgical orthopedic cases, neurological conditions and soft tissue injuries. Students will participate in animal rehabilitation modalities such as hydrotherapy, laser therapy, canine massage, therapeutic exercises, cold and warm thermotherapy and electrical stimulation. On completion of the rotation, students should be familiar with many of the concepts in animal rehabilitation, however, it is recommended that those interested in practicing animal rehabilitation medicine take further training and become certified practitioners.

**Emergency & Critical Care - Description and Expectations:**
The department involves two separate services; the emergency service and the critical care service. The BBVSH emergency service accepts referral emergencies requiring advanced care. The student will participate in history taking, physical examination, AFAST & TFAST as well as diagnostic/therapeutic planning for patients on this service. Cases range from surgical emergencies, decompensated neurology/internal medicine patient to those dying of critical illness. The critical care service (CC) accepts patient transfers from all the Boundary Bay specialty services. A patient referred to CC is unstable; it may require intensive care monitoring and procedures, including: medical ventilation, direct arterial pressure monitoring, oxygen therapy and/or vasopressor support. Objectives of the rotation are to elevate the student’s general physical exam skills, proficiency in AFAST/TFAST (ER ultrasounds for free fluid), ability to formulate a fluid therapy plan and devise an appropriate diagnostic and therapeutic plan for their patients.

**MISCELLANEOUS:**
- **Attire:** Extern’s own surgical scrubs AND 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:

Dr. Geoff Hutchinson (ghutchinson@bbvsh.com)
Nicole Scott (nscott@bbvsh.com)

306 – 6325 204th St
Langley BC V2Y 3B3
Phone: 604-514-8383
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 28, 2019 – November 24, 2019
Weeks 29-32 March 30, 2020 – April 26, 2020

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  

Four 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:

1 – 2  
September 3, 2019 – September 15, 2019
3 – 4  
September 16, 2019 – September 29, 2019
5 – 6  
September 30, 2019 – October 14, 2019
7 – 8  
October 15, 2019 – October 27, 2019
9 – 10  
October 28, 2019 – November 11, 2019
11 – 12  
November 12, 2019 – November 24, 2019
13 – 14  
November 25, 2019 – December 8, 2019
15 – 16  
December 9, 2019 – December 20 (6PM), 2019
17 – 18  
January 6, 2020 – January 19, 2020
19 – 20  
January 20, 2020 – February 2, 2020
21 – 22  
February 3, 2020 – February 16, 2020
23 – 24  
February 17, 2020 – February 27 (6PM), 2020
25 – 26  
March 3, 2020 – March 15, 2020
27 – 28  
March 16, 2020 – March 29, 2020
29 – 30  
March 30, 2020 – April 12, 2020
31 – 32  
April 13, 2020 – April 26, 2020

STUDENT NUMBERS: 2 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)
- Abdominocectensis (diagnostic and therapeutic)
- Approach to chest tube placement
- Approach to pericardiocentesis
- Fluid therapy in emergency and critical care
  - Crystalloids
  - 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: Malena McGrogan ([mmcgrogan@canadawestvets.com](mailto:mmcgrogan@canadawestvets.com))
Dr. Teresa Cheng ([tcheng@canadawestvets.com](mailto:tcheng@canadawestvets.com)) or (604) 473-4882
Dr. Trevor Enberg ([tenberg@canadawestvets.com](mailto:tenberg@canadawestvets.com)) or (604) 473-4882
Canada West Veterinary Specialists – Neurology

ROTATION CODE: CWN

INSTRUCTOR: Dr. Nick Sharp
Dr. Laura Barnard
Neurologist

DURATION: 2 weeks

TIMING:

1 – 2 September 3, 2019 – September 15, 2019
13 – 14 November 25, 2019 – December 8, 2019
17 – 18 January 6, 2020 – January 19, 2020
29 – 30 March 30, 2020 – April 12, 2020

STUDENT NUMBERS: 1 students per rotation

DESCRIPTION:
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: Malena McGrogan (mmcrogan@canadawestvets.com)
Dr. Nick Sharp (njsharp@mac.com) or (604) 473-4882
Dr. Laura Barnard (lbarnard@canadawest.com)
Canada West Veterinary Specialists – Surgery

ROTATION CODE: CWS

INSTRUCTOR: Surgeons:
Dr. Alan Kuzma
Dr. Michael King
Dr. Sevima Aktay

DURATION: 2 weeks

TIMING:
3 – 4 September 16, 2019 – September 29, 2019
7 – 8 October 15, 2019 – October 27, 2019
11 – 12 November 12, 2018 – November 24, 2019
15 – 16 December 9, 2019 – December 20 (6PM), 2019
19 – 20 January 20, 2020 – February 2, 2020
21 – 22 February 3, 2020 – February 16, 2020
23 – 24 February 17, 2020 – February 27 (6PM), 2020
27 – 28 March 16, 2020 – March 29, 2020
31 – 32 April 13, 2020 – April 26, 2020

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 830am)
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. K Robinson

DURATION: 2 weeks

TIMING: Weeks 23 – 24 February 17, 2020 – February 27 (6PM), 2020

**Rotation starts on a STAT holiday. Students are expected to attend the rotation on the Monday morning with all call requirements from previous rotations completed.

**A mandatory weekend training session will take place prior to the start of the rotation.

STUDENT NUMBERS: 3 students per rotation

DESCRIPTIVE: The Students will participate in the evaluation and care of the sled dogs running in the Canadian Challenge Sled dog race. Organization meetings prior to the rotation may be required but will be scheduled as time allows. Students will need to be prepared for long days, outside in cold weather elements. This rotation will require the students to be in attendance at the race for its entire duration.

**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 consist of meat and gluten.

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

ROTATION CODE: CRH

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

DURATION: 2 weeks

TIMING:
- Weeks 13 - 14  November 25, 2019 – December 8, 2019
- Weeks 19 – 20 January 20, 2020 – February 2, 2020

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.
Cardiology – Atlantic Veterinary College

ROTATION CODES: CAVC (Summer: SUCA)

INSTRUCTOR: Dr. E. Coté (co-ordinator) and Dr. Lynne O’Sullivan

DURATION: 2 weeks

TIMING: Summer Offerings:
- July 2 – 14, 2019
- July 22 – August 4, 2019
- August 12-25, 2019
- September 3, 2019 – September 15, 2019
- Weeks 13 – 14 November 25, 2019 – November 8, 2019
- Weeks 17 – 18 January 6, 2019 – January 19, 2020
- Weeks 27 – 28 March 16, 2020 – March 29, 2020

STUDENT NUMBERS: 1 student per rotation

DESCRIPTIVE: Cardiology Clinics in Companion Animals (AVC-VCA 480) is a two-week clinical rotation lead by both cardiologist and their residents for final-year veterinary students in which dogs, cats, and occasionally horses and cattle are evaluated and treated for suspected or confirmed heart disease. Successful participants will show initiative that allows them to see and better understand cardiac auscultation, electrocardiograms/ECGs, thoracic radiographs, echocardiograms, cardiovascular drugs, and treatment, follow-up, and prognosis of common cardiovascular diseases in practice. A strong emphasis is placed on client communications during the rotation. A stethoscope and lab coat are required materials. Preparation for the rotation should include review of cardiology class notes and materials from prior years, and reading of the rotation manual provided prior to the start of the rotation.

Students who take this rotation are expected to complete an application package which consists of an application form, an access agreement form, proof of their rabies titre and their unofficial transcripts. WCVM Student Services will facilitate these packages and send them to Heather MacSwain at AVC when all are complete.

Student is responsible for travel, accommodations and living expenses while there.

* A student may take this rotation only once.

CONTACTS: Heather MacSwain, Academic Student Affairs (hmacswain@upei.ca) or (902) 566-0780
C.A.R.E. Centre Animal Hospital ER Rotation

INSTRUCTORS: Dr. J. Murray

DURATION: 2 weeks

TIMING: Weeks 13-14 November 25 – December 8, 2019
Weeks 17-18 January 6 – January 19, 2020

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 (e.g. 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 (e.g. 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 practitioner(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 Microbiology
(Parasitology, Virology, Bacteriology, Molecular Biology, Immunology, PDS & VIDO)


DURATION: 2 weeks

TIMING: Weeks 9 – 10 October 28, 2019 – November 11, 2019

STUDENT NUMBERS: 12 students per rotation

DESCRIPTIVE: This rotation provides an opportunity for review of the major pathogens currently affecting veterinary species in Canada and for discussions of the diagnosis, treatment and control options. It is also an opportunity for an update of emerging veterinary microbiological research and diagnostics innovations.

An objective of this rotation is for students to review and expand their knowledge of optimal use of diagnostic microbiology. Emphasis is given to the need for: i) provision of a satisfactory and pertinent history, ii) proper selection, collection and transportation of samples, iii) selection of appropriate laboratory tests, and iv) integration of laboratory data and clinical information for solving problems in individual animals and herds. Students will develop an appreciation of the practical application of new tests and laboratory procedures.

Students will rotate through the major areas of veterinary microbiology expertise at USASK:

- Bacteriology (coordinated by Dr. Rubin)
- Immunology (coordinated by Dr. Ellis)
- Molecular Diagnostics (coordinated by Dr. Hill)
- Parasitology (coordinated by B Wagner)
- Virology (coordinated by Dr. Ellis)
- Prairie Diagnostic Services (coordinated by Dr. Godson)
- VIDO (coordinated by Dr. Gerdts)

Each section may have additional participants including other Department of Veterinary Microbiology faculty and other scientists on campus.
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

 Weeks 29 – 30 March 30, 2020 - April 12, 2020
 Weeks 31 – 32 April 13, 2020 – April 26, 2020

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 two students per rotation who will assist the pathologist on duty.

Three such rotations will be offered.

* A student may take this rotation only once.
Creekside Veterinary Service, Maple Creek – Bovine OB Rotation

ROTATION CODE: CRB

INSTRUCTOR: Dr. L. Runnion

DURATION: 2 weeks

TIMING: pre-draft application procedure  
29 – 30 March 30, 2020 - April 12, 2020  
31 – 32 April 13, 2020 – April 26, 2020

STUDENT NUMBERS: One student per rotation

DESCRIPTIVE: Our veterinary clinic is a rural mixed animal practice that has a large cow-calf client base. In the spring rotation, students can expect to see a high volume of bovine obstetrics including c-sections and dystocias, and everything that comes with the season – prolapses, neonatal calf medicine, etc. We also will be spending time on ranch performing bull breeding soundness exams, and in-clinic evaluating mares for the breeding season. Students will also get a feel for balancing and prioritizing regularly scheduled appointments with emergency calls. Being willing to work long hours and on-call will increase the volume of cases you will see during this rotation.

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 and/or equine practice in order to make the most of your time at CVS.

Housing – the option of renting a room in one of our technicians’ homes is available for $150. Students will be expected to work out their meals with those whom with they stay.
Creekside Veterinary Service, Maple Creek – Preg Testing Rotation

ROTATION CODE: CRP
INSTRUCTOR: Dr. L. Runnion
DURATION: 2 weeks

TIMING: pre-draft application procedure
7 – 8 October 15, 2019 – October 27, 2019
9 – 10 October 28, 2019 – November 11, 2019
11 – 12 November 12, 2019 – November 24, 2019

STUDENT NUMBERS: One student per rotation

DESCRIPTIVE: Our veterinary clinic is a rural mixed animal practice that has a large cow-calf client base. In the fall rotation, students can expect to be on-ranch pregnancy testing most days, with herd sizes ranging from 80 – 800 head. Experience pregnancy testing with ultrasound and manual palpation will be gained. When not on ranch, students will assist in-clinic with a variety of bovine, equine and companion animal cases. While we are a full-service mixed animal practice, in October and November 90% + of time is allocated to bovine practice.

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 and/or equine practice in order to make the most of your time at CVS.

Housing – the option of renting a room in one of our technicians’ homes is available for $150. Students will be expected to work out their meals with those whom with they stay.
Dairy Production Medicine

ROTATION CODE: DAI

INSTRUCTOR: Dr. C. Luby

DURATION: 2 weeks


STUDENT NUMBERS: 4 students per rotation

PREREQUISITES:
Completion of VLAC 453 (Third Year Dairy Elective)
Completion of one Ruminant Field Service rotation before taking the Dairy Production Medicine rotation.

DESCRIPTIVE:
The objective of this rotation is to provide advanced training to students seriously considering a career in dairy production medicine.

Students will participate in both routine dairy herd health visits and herd visits aimed at troubleshooting specific problems. In each case, students will be expected to identify areas where improvements can be made in these herds. These areas will include but are not limited to animal health, welfare and productivity.

Following every visit, students will be expected to prepare a report which identifies each problem area and suggests strategies to remedy these. Discussions will also be provided which will focus on the problems encountered in each herd.

Students interested in selecting this rotation are strongly recommended to talk to Dr. Luby prior to the draft. Only students seriously considering a career in dairy production medicine should select this rotation.

Students who fail the Dairy Field Service rotation will be given an opportunity to improve their grade to a passing level by repeating the rotation at a time determined by the instructor.
Dentistry

ROTATION CODE: DEN
INSTRUCTOR: Dr. C. Lowe
DURATION: 2 weeks

TIMING:  
1 – 2 September 3, 2019 – September 15, 2019  
5 – 6 September 30, 2019 – October 14, 2019  
7 – 8 October 15, 2019 – October 27, 2019  
9 – 10 October 28, 2019 – November 11, 2019  
11 – 12 November 12, 2019 – December 8, 2019  
13 – 14 November 25, 2019 – December 14, 2019  
15 – 16 December 9, 2019 – December 20 (6PM), 2019  
17 – 18 January 6, 2020 – January 19, 2020  
19 – 20 January 20, 2020 – February 2, 2020  
21 – 22 February 3, 2020 – February 16, 2020  
23 – 24 February 17, 2020 – February 27 (6PM), 2020  
27 – 28 March 16, 2020 – March 29, 2020  
29 – 30 March 30, 2020 – April 12, 2020  
31 – 32 April 13, 2020 – April 26, 2020

STUDENT NUMBERS: 2-4 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 – Atlantic Veterinary College

ROTATION CODES: DAVC (Summer: SUCA)

INSTRUCTOR: Dr. C. Pye

DURATION: 2 weeks

TIMING: Weeks 1-2 September 3, 2019 – September 15, 2019

STUDENT NUMBERS: 2 student per rotation

DESCRIPTIVE: This course, given in the Veterinary Teaching Hospital, is a clinical rotation in the specialty of dermatology. Students participate in the diagnosis and therapy of diseases involving the skin of companion animals.
DERMATOLOGY - WCVM

ROTATION CODE: DERMINT

INSTRUCTOR: Dr. A. Foster

DURATION: 2 weeks

TIMING:

11 – 12 November 12, 2019 – November 24, 2019
15 – 16 December 9, 2019 – December 20 (6PM), 2019
19 – 20 January 20, 2020 – February 2, 2020
23 – 24 February 17, 2020 – February 27 (6PM), 2020
27 – 28 March 16, 2020 – March 29, 2020
31 – 32 April 13, 2020 – April 26, 2020

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.

* A student may take this rotation only once.
DEPARTMENT – Vet DERM Clinic, BC

ROTATION CODE: DERMREF

INSTRUCTOR: Dr. Jangi Bajwa

DURATION: 2 weeks

TIMING:
- Weeks 17 – 18: January 6, 2020 – January 19, 2020

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.
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    September 3, 2019 – September 15, 2019
3 – 4    September 16, 2019 – September 29, 2019
5 – 6    September 30, 2019 – October 14, 2019
7 – 8    October 15, 2019 – October 27, 2019
9 – 10   October 28, 2019 – November 11, 2018
11 – 12  November 12, 2018 – November 24, 2019
13 – 14  November 25, 2019 – December 8, 2019
15 – 16  December 9, 2019 – December 20 (6PM), 2019
17 – 18  January 6, 2020 – January 19, 2020
19 – 20  January 20, 2020 – February 2, 2020
21 – 22  February 3, 2020 – February 16, 2020
23 – 24  February 17, 2020 – February 27 (6PM), 2020

STUDENT NUMBERS: Maximum of 6 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 handout 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

INSTRUCTORS: Dr. T. Epp

DURATION: 2 weeks

TIMING: Weeks 1-2 September 3, 2019 – September 13, 2019

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 University of Saskatchewan (Saskatoon) 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 out-of-province students (PEI, UCVM, Guelph & St. Hyacinthe) will be at during the rotation even though it is located here in Saskatchewan. There is a course fee of $150.00 which will cover all expenses for within province travel, accommodations, food, etc. during the rotation. This fee applies to Saskatoon students.
Edmonton Valley Zoo Veterinary Hospital - Zoo Medicine

ROTATION CODE: EVZ

INSTRUCTORS: Dr. Marie-Josée Limoges (Zoo Veterinarian)

DURATION: 2 weeks

TIMING: 11 – 12 November 12, 2018 – November 24, 2019

STUDENT NUMBERS: One student per rotation.

DESCRIPTIVE: Students will be expected to assist the zoo veterinarian in the examination and treatment of animals in the care and custody of the Edmonton Valley Zoo. These medical examinations will be performed for various reasons including general wellness exams, illness, emergencies and whatever other problems that may arise. The Valley Zoo houses approximately 350 animals of 110 different species from all branches of the animal kingdom. In many cases diagnosis and treatment may be developed in an unusual species based on other animal paradigms that the examiner is familiar with. This requires an active and adaptable individual. Many diseases will be diagnosed only after an intensive investigation in the library, internet or inquiries made in the exotic animal veterinary community. There are active breeding programs for a wide variety of species of mammals, amphibians, birds and reptiles in the zoo.

Surgery is performed on an as needed basis and involves the same flexibility and adaptability that is required in all medical cases. Many of these surgeries are done on an emergency basis and the student will be expected to be available after hours during this rotation. The surgeries may be performed in the animal’s enclosure, in the veterinary clinic on the zoo grounds or even in a veterinary hospital in the Edmonton area, depending on the animal and the circumstances of the particular case. In some cases the student may be able to scrub in with the surgeon, or in other cases, they may assist with anesthesia induction, monitoring, and recovery.

Anesthesia plays a greater role in the practice of veterinary medicine in a zoo environment and the student should have a strong interest in the anesthesia of exotic and domestic animals. Many animals cannot be given a regular annual physical exam without chemical immobilization. The student will be exposed to a variety of different drug administration techniques which may include pole syringe, blow pipe, and dart pistol.

Laboratory testing is very important in the maintenance of the collection of animals and students will be expected to analyze complete blood counts, chemistry panels, urinalysis and fecal flotations in a wide variety of species.

The nature of the collection and its health requirements are very variable, so the precise nature of the experience will vary tremendously from student to student and season to season.

Topics that may be covered:
Tour of the Valley Zoo
Introduction to the practice of zoo and exotic animal medicine
Safety and handling of a wide variety of zoo animals.
Zoonotic potential of a variety of wild animals
Vaccination and deworming strategies in a wide variety of species
Control of infectious disease in a zoo environment
Behaviour consultation in a wide variety of zoo species
Anesthesia and monitoring in wildlife
Diagnostic procedures including fecals, urinalysis, and blood work
Diagnostic Imaging of exotic animals
Surgery in a wide variety of species
Discussion of Animal Rights and Animal Welfare groups in the zoo environment
Discussion of a zoo veterinarian’s role in the media
Discussion of the role of zoos in the education of the public and in scientific research
Discussion of CAZA, AZA, AAZV Acquisition, purchase and exchange of zoo animals
Other topics as they arise

**Attire:** Surgical scrubs, lab coat, large animal coveralls, stethoscope shall be provided by student. The City of Edmonton requires that all persons wear CSA certified steel toed shoes when handling animals.

**Hours of Work:** 8:15 am to 4:30 pm Monday to Friday Emergency, weekend and evening work on an as needed basis

**Housing and Transportation:** Must be provided by student

**Travel:** Must be provided by student

**Recommended References:**

**Contact Information:**
Dr. MJ Limoges, Zoo Veterinarian
Valley Zoo Veterinary Hospital Edmonton, Alberta
mj.limoges@edmonton.ca
Office: 780-496-4850
Cell: 587-783-5391
Emergency & Critical Care (clinical and simulation)

ROTATION CODE: ECC

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: Weeks 29-30 March 30 – April 12, 2020

STUDENT NUMBERS: 6 students per rotation

DESCRIPTIVE: This course will include 1 week on clinics and 1 week of didactic training in the BJ Hughes simulation lab and classroom.

For the week on clinics: 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, 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. There will be 2 days off during this week (may not be Saturday or Sunday).

For the week of didactic training:
This will consist doing advanced emergency procedures on dog or cat mannequins including Thoracocentesis, abdominocentesis, pericardiocentesis, chest tube placement, central line placements and FAST scans.

There will a variety of cased base scenarios that we will run that will include respiratory distress, various states of shock, CPR and client interactions.

We will have in detailed discussions on topics such as fluid therapy.

The didactic week would run Monday to Friday 8:30-5:30 pm.

There may be the opportunity to work the evenings on the weekend if interested.
Elders Equine - Manitoba

**Rotation Code:** EEM

**Instructors:** Dr. Chris Bell

**Duration:** 2 weeks

**Timing:**
- 1 – 2: September 3, 2019 – September 15, 2019
- 3 – 4: September 16, 2019 – September 29, 2019
- 5 – 6: September 30, 2019 – October 14, 2019
- 25 – 26: March 3, 2020 – March 15, 2020
- 27 – 28: March 16, 2020 – March 29, 2020
- 29 – 30: March 30, 2020 – April 12, 2020
- 31 – 32: April 13, 2020 – April 26, 2020

**Student Numbers:** One student per rotation.

* A student may take this rotation only once.

**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 x-rays, 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](mailto:Chris.bell@eldersequineclinic.com)

* A student may take this rotation only once
Equine Dentistry

ROTATION CODE: EQD

INSTRUCTOR: Dr. Michelle Husulak, Dr. James Carmalt, Dr. Kate Robinson, Dr. Steve Manning, Dr. Nora Chavarria

DURATION: 2 weeks

TIMING: Weeks 21 – 22 February 3, 2020 – February 16, 2020

STUDENT NUMBERS: 8 students per rotation

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.

EVALUATION: Students will be evaluated on attendance, participation, knowledge and skill development, and performance on a quiz.

PREREQUISITE: Students must have participated in the Equine Health Management and Clinical Techniques elective in year 3 of the DVM program.
Feline Rotation – Calgary

CODE: FEL

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

DURATION: 2 weeks

TIMING:

1 – 2 September 3, 2019 – September 15, 2019
3 – 4 September 16, 2019 – September 29, 2019
5 – 6 September 30, 2019 – October 14, 2019
7 – 8 October 15, 2019 – October 27, 2019
9 – 10 October 28, 2019 – November 11, 2019
11 – 12 November 12, 2019 – November 24, 2019
13 – 14 November 25, 2019 – December 8, 2019
15 – 16 December 9, 2019 – December 20 (6PM), 2019
17 – 18 January 6, 2020 – January 19, 2020
19 – 20 January 20, 2020 – February 2, 2020
21 – 22 February 3, 2020 – February 16, 2020
23 – 24 February 17, 2020 – February 27 (6PM), 2020
27 – 28 March 16, 2020 – March 29, 2020
29 – 30 March 30, 2020 – April 12, 2020
31 – 32 April 13, 2020 – April 26, 2020

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.
**Field Service - Equine**

**ROTATION CODE:** FSEQ  
**INSTRUCTORS:** Dr. K. Robinson (coordinator), Dr. S. Manning, Dr. M. Husulak, Dr. A. MacKay  
**DURATION:** 2 weeks

**TIMING:**

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 2</td>
<td>September 3, 2019</td>
<td>September 15, 2019</td>
</tr>
<tr>
<td>3 – 4</td>
<td>September 16, 2019</td>
<td>September 29, 2019</td>
</tr>
<tr>
<td>5 – 6</td>
<td>September 30, 2019</td>
<td>October 14, 2019</td>
</tr>
<tr>
<td>7 – 8</td>
<td><strong>October 15, 2019</strong></td>
<td>October 27, 2019</td>
</tr>
<tr>
<td>9 – 10</td>
<td>October 28, 2019</td>
<td>November 11, 2019</td>
</tr>
<tr>
<td>11 – 12</td>
<td><strong>November 12, 2019</strong></td>
<td>November 24, 2019</td>
</tr>
<tr>
<td>13 – 14</td>
<td>November 25, 2019</td>
<td>December 8, 2019</td>
</tr>
<tr>
<td>15 – 16</td>
<td>December 9, 2019</td>
<td><strong>December 20 (6PM), 2019</strong></td>
</tr>
<tr>
<td>17 – 18</td>
<td>January 6, 2020</td>
<td>January 19, 2020</td>
</tr>
<tr>
<td>19 – 20</td>
<td>January 20, 2020</td>
<td>February 2, 2020</td>
</tr>
<tr>
<td>23 – 24</td>
<td>February 17, 2020</td>
<td><strong>February 27 (6PM), 2020</strong></td>
</tr>
<tr>
<td>27 – 28</td>
<td>March 16, 2020</td>
<td>March 29, 2020</td>
</tr>
<tr>
<td>29 – 30</td>
<td>March 30, 2020</td>
<td>April 12, 2020</td>
</tr>
<tr>
<td>31 – 32</td>
<td>April 13, 2020</td>
<td>April 26, 2020</td>
</tr>
</tbody>
</table>

**STUDENT NUMBERS:** 2 - 4 students per rotation, depending on the time of year.

**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. C. Luby, N. Erickson, J. Campbell, F. Schumann

**DURATION:** 2 weeks

**TIMING:**

| 1 - 2 | September 3, 2019 – September 15, 2019 |
| 3 – 4 | September 16, 2019 – September 29, 2019 |
| 5 – 6 | September 30, 2019 – October 14, 2019 |
| 7 – 8 | October 15, 2019 – October 27, 2019 |
| 11 – 12 | November 12, 2019 – November 24, 2019 |
| 13 – 14 | November 25, 2019 – December 8, 2019 |
| 15 – 16 | December 9, 2019 – December 20 (6PM), 2019 |
| 19 – 20 | January 20, 2020 – February 2, 2020 |
| 21 – 22 | February 3, 2020 – February 16, 2020 |
| 23 – 24 | February 17, 2020 – February 27 (6PM), 2020 |
| 27 – 28 | March 16, 2020 – March 29, 2020 |
| 29 – 30 | March 30, 2020 – April 12, 2020 |
| 31 – 32 | April 13, 2020 – April 26, 2020 |

**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. C. Kashuba (coordinator), Dr. K. Swekla, Dr. B. Gray  
**DURATION:**  2 weeks  
**TIMING:**

<table>
<thead>
<tr>
<th>Rot</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>September 3, 2019</td>
<td>September 15, 2019</td>
</tr>
<tr>
<td>3 - 4</td>
<td>September 16, 2019</td>
<td>September 29, 2019</td>
</tr>
<tr>
<td>5 - 6</td>
<td>September 30, 2019</td>
<td>October 14, 2019</td>
</tr>
<tr>
<td>7 - 8</td>
<td><strong>October 15, 2019</strong></td>
<td>October 27, 2019</td>
</tr>
<tr>
<td>9 - 10</td>
<td>October 28, 2019</td>
<td>November 11, 2019</td>
</tr>
<tr>
<td>11 - 12</td>
<td><strong>November 12, 2019</strong></td>
<td>December 8, 2019</td>
</tr>
<tr>
<td>13 - 14</td>
<td>November 25, 2019</td>
<td>December 24, 2019</td>
</tr>
<tr>
<td>15 - 16</td>
<td>December 9, 2019</td>
<td><strong>December 20 (6PM), 2019</strong></td>
</tr>
<tr>
<td>17 - 18</td>
<td>January 6, 2020</td>
<td>January 19, 2020</td>
</tr>
<tr>
<td>19 - 20</td>
<td>January 20, 2020</td>
<td>February 2, 2020</td>
</tr>
<tr>
<td>21 - 22</td>
<td>February 3, 2020</td>
<td>February 16, 2020</td>
</tr>
<tr>
<td>23 - 24</td>
<td>February 17, 2020</td>
<td><strong>February 27 (6PM), 2020</strong></td>
</tr>
<tr>
<td>25 - 26</td>
<td>March 3, 2020</td>
<td>March 15, 2020</td>
</tr>
<tr>
<td>27 - 28</td>
<td>March 16, 2020</td>
<td>March 29, 2020</td>
</tr>
<tr>
<td>29 - 30</td>
<td>March 30, 2020</td>
<td>April 12, 2020</td>
</tr>
<tr>
<td>31 - 32</td>
<td>April 13, 2020</td>
<td>April 26, 2020</td>
</tr>
</tbody>
</table>

**STUDENT NUMBERS:**  1 students 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 livestock, companion animals, rodents, rabbits, 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
- 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
• 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.
Large Animal Imaging

ROTATION CODE: LMI

INSTRUCTORS: Dr. C. Clark

DURATION: 2 weeks


STUDENT NUMBERS: 8 students per rotation

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, F. Uehlinger

**Duration:** 2 weeks

**Timing:**

1 - 2 September 3, 2019 – September 15, 2019
3 - 4 September 16, 2019 – September 29, 2019
5 - 6 September 30, 2019 – October 14, 2019
7 - 8 October 15, 2019 – October 27, 2019
9 - 10 October 28, 2019 – November 11, 2019
11 - 12 November 12, 2019 – November 24, 2019
23 - 24 February 17, 2020 – February 27 (6PM), 2020
25 - 26 March 3, 2020 – March 15, 2020
27 - 28 March 16, 2020 – March 29, 2020
29 - 30 March 30, 2020 – April 12, 2020
31 - 32 April 13, 2020 – April 26, 2020

**Student Numbers:** 4 students per rotation
For practical reasons a minimum of 2 students per rotation is preferred.

**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.

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, and D. Wilson

DURATION: 2 week rotations

TIMING:

1 – 2  September 3, 2019 – September 15, 2019
3 – 4  September 16, 2019 – September 29, 2019
5 – 6  September 30, 2019 – October 14, 2019
7 – 8  October 15, 2019 – October 27, 2019
9 – 10 October 28, 2019 – November 11, 2018
11 – 12 November 12, 2018 – November 24, 2019
13 – 14 November 25, 2019 – December 8, 2019
15 – 16 December 9, 2019 – December 20 (6PM), 2019
17 – 18 January 6, 2020 – January 19, 2020
19 – 20 January 20, 2020 – February 2, 2020
21 – 22 February 3, 2020 – February 16, 2020
23 – 24 February 17, 2020 – February 27 (6PM), 2020
27 – 28 March 16, 2020 – March 29, 2020
29 – 30 March 30, 2020 – April 12, 2020
31 – 32 April 13, 2020 – April 26, 2020

STUDENT NUMBERS: 6 students per rotation

DESCRIPTIVE: All large animal surgery rotations will cover the basic essentials of large animal surgery. Students 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 month of April. Small group teaching rounds and cadaver and donation surgeries help strengthen the rotation.

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

* Students may repeat this rotation.
Manitoba Swine

ROTATION CODE: MSW
COORDINATOR: Dr. J. Harding
SUPERVISOR: Dr. B. Tully
DURATION: 2 weeks
TIMING:  
- Weeks 11-12: November 12-24, 2019  
- Weeks 15-16: December 9-20, 2019  
- Weeks 17-18: January 6-19, 2020 (Banff Pork Seminar is Jan 8-9, 2020)  
- Weeks 25-26: March 3-15, 2020 (AASV is Mar 7-10, 2020)

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. Brad Lage
- 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 Quality Assurance (CQA) 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 – Beef Pregnancy Testing

ROTATION CODE: MPB

INSTRUCTORS: Dr. K. Wasilow

DURATION: 2 weeks

TIMING: pre-draft application procedure

9 – 10 October 28, 2019 - November 11, 2018
11 – 12 November 12, 2018 - November 24, 2019

STUDENT NUMBERS: 1 student per rotation

DESCRIPTION: 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).

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.
Maple Creek Veterinary Services – Bovine Obstetrics

ROTATION CODE: MPO

INSTRUCTORS: Dr. K. Wasilow

DURATION: 2 weeks

TIMING: pre-draft application procedure

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>29–30</td>
<td>March 30, 2020</td>
<td>April 12, 2020</td>
</tr>
<tr>
<td>31–32</td>
<td>April 13, 2020</td>
<td>April 26, 2020</td>
</tr>
</tbody>
</table>

STUDENT NUMBERS: 1 – 2 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 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.

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 palpating in cold weather.

**Housing:** Room and board will be provided at a charge of $250 per two weeks. Laundry and kitchen facilities available.
Medical Imaging
(Radiology and Ultrasound)

ROTATION CODE: MI

INSTRUCTORS: Drs. G. Starrak, S. Sukut, and L. Zwicker

DURATION: 2 weeks

TIMING:

1 – 2 September 3, 2019 – September 15, 2019
3 – 4 September 16, 2019 – September 29, 2019
5 – 6 September 30, 2019 – October 14, 2019
7 – 8 October 15, 2019 – October 27, 2019
9 – 10 October 28, 2019 – November 11, 2019
11 – 12 November 12, 2019 – November 24, 2019
13 – 14 November 25, 2019 – December 8, 2019
15 – 16 December 9, 2019 – December 20 (6PM), 2019
17 – 18 January 6, 2020 – January 19, 2020
19 – 20 January 20, 2020 – February 2, 2020
21 – 22 February 3, 2020 – February 16, 2020
23 – 24 February 17, 2020 – February 27 (6PM), 2020
27 – 28 March 16, 2020 – March 29, 2020
29 – 30 March 30, 2020 – April 12, 2020
31 – 32 April 13, 2020 – April 26, 2020

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 (20%), including the case presentations and rounds discussions (30%). The DEPA is worth 10% and the remaining 40% of the grade will be based on 2 written examinations:

**Technical Radiology Exam (10%)**: 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 (30%)**: 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)
Neurology

ROTATION CODE: NEU

INSTRUCTORS: Dr. D. Zwueste

DURATION: 2 weeks

TIMING:

<table>
<thead>
<tr>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 – 4</td>
<td>September 16, 2019 – September 29, 2019</td>
</tr>
<tr>
<td>7 – 8</td>
<td>October 15, 2019 – October 27, 2019</td>
</tr>
<tr>
<td>11 – 12</td>
<td>November 12, 2019 – November 24, 2019</td>
</tr>
<tr>
<td>15 – 16</td>
<td>December 9, 2019 – December 20 (6PM), 2019</td>
</tr>
<tr>
<td>19 – 20</td>
<td>January 20, 2020 – February 2, 2020</td>
</tr>
<tr>
<td>23 – 24</td>
<td>February 17, 2020 – February 27 (6PM), 2020</td>
</tr>
<tr>
<td>29 – 30</td>
<td>March 30, 2020 – April 12, 2020</td>
</tr>
</tbody>
</table>

STUDENT NUMBERS: 4 students per rotation

DESCRIPTIVE: This rotation is for you to explore the medical and surgical principles of neurology. It is an opportunity for you to develop your neurological examination and lesion localization skills. You will have the opportunity to advance your diagnostic skills and knowledge with reference to neurological diseases and conditions. You will have the opportunity to discuss diagnostic and therapeutic approaches and prepare a framework for how to decide which cases you have the resources to treat yourself and which cases are more appropriate to refer.

While on the neurology rotation, you will be on call for surgical cases the FIRST WEEK (including weekend).

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.

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.

Rounds will take place Monday through Friday and on the weekend for any ICU cases you may have. You will be responsible for 8 am and 8 pm treatments for any of your hospitalized patients at all times, including the weekend.

A written evaluation is given only at the end of the rotation. Any serious weaknesses noted in the first week will be discussed with you at the end of the first week whenever possible. Categories are weighted differently so the overall grade is not an average of the categories. To pass the rotation students must obtain a passing grade in each category.

* A student may take this rotation only once
Okotoks Feedlot Health Management

**ROTATION CODE:** OFL

**INSTRUCTOR:** Dr. J. Campbell and N. Erickson

**DURATION:** 2 weeks

**TIMING:** Weeks 9-10 October 28 – November 11, 2019

**STUDENT NUMBERS:** 4 students

**DESCRIPTIVE:** Students need to be available to travel to Okotoks the weekend prior to the start of the rotation.

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.

**PREREQUISITE:** A student must have taken **one** of the following 3rd year electives: Beef Industry elective or the Advanced Bovine/Ruminant Medicine elective or the Bovine Nutrition elective.
Oncology

ROTATION CODE: ONC

INSTRUCTOR: Dr. J. Gagnon and V. MacDonald

DURATION: 2 weeks

TIMING:

<table>
<thead>
<tr>
<th>Period</th>
<th>Start Date (MM/DD/YYYY)</th>
<th>End Date (MM/DD/YYYY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–2</td>
<td>September 3, 2019</td>
<td>September 15, 2019</td>
</tr>
<tr>
<td>3–4</td>
<td>September 16, 2019</td>
<td>September 29, 2019</td>
</tr>
<tr>
<td>5–6</td>
<td>September 30, 2019</td>
<td>October 14, 2019</td>
</tr>
<tr>
<td>9–10</td>
<td>October 28, 2019</td>
<td>November 11, 2019</td>
</tr>
<tr>
<td>11–12</td>
<td>November 12, 2018</td>
<td>November 24, 2019</td>
</tr>
<tr>
<td>13–14</td>
<td>November 25, 2019</td>
<td>December 8, 2019</td>
</tr>
<tr>
<td>15–16</td>
<td>December 9, 2019</td>
<td>December 20 (6PM), 2019</td>
</tr>
<tr>
<td>17–18</td>
<td>January 6, 2020</td>
<td>January 19, 2020</td>
</tr>
<tr>
<td>19–20</td>
<td>January 20, 2020</td>
<td>February 2, 2020</td>
</tr>
<tr>
<td>21–22</td>
<td>February 3, 2020</td>
<td>February 16, 2020</td>
</tr>
<tr>
<td>23–24</td>
<td>February 17, 2020</td>
<td>February 27 (6PM), 2020</td>
</tr>
<tr>
<td>27–28</td>
<td>March 16, 2020</td>
<td>March 29, 2020</td>
</tr>
<tr>
<td>29–30</td>
<td>March 30, 2020</td>
<td>April 12, 2020</td>
</tr>
</tbody>
</table>

STUDENT NUMBERS: 2 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. The student will also be expected to help administer chemotherapy to patients and assist with radiation treatments if required.

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. Journal club and cytology rounds will take place every Wednesday.

The evaluation of students will be based on all aspects of their performance in the clinic including patient care, client communication and 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, B. Bauer, S. Osinchuk

DURATION: 2 weeks

TIMING:

1 – 2
September 3, 2019 – September 15, 2019

3 – 4
September 16, 2019 – September 29, 2019

5 – 6
September 30, 2019 – October 14, 2019

7 – 8
October 15, 2019 – October 27, 2019

11 – 12
November 12, 2018 – November 24, 2019

13 – 14
November 25, 2019 – December 8, 2019

15 – 16
December 9, 2019 – December 20 (6PM), 2019

17 – 18
January 6, 2020 – January 19, 2020

19 – 20
January 20, 2020 – February 2, 2020

21 – 22
February 3, 2020 – February 16, 2020

23 – 24
February 17, 2020 – February 27 (6PM), 2020

25 – 26
March 3, 2020 – March 15, 2020

27 – 28
March 16, 2020 – March 29, 2020

29 – 30
March 30, 2020 – April 12, 2020

31 – 32
April 13, 2020 – April 26, 2020

STUDENT NUMBERS: 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 PAWS and all students must review this prior to beginning the rotation. There will be a quiz on the first day of the rotation assessing basic ophthalmic knowledge and one at the end of the rotation.

Topic rounds of varied ophthalmic conditions will be given as necessary during the elective to cover essential case material that may not be seen by the clinical service.

Evaluations of students will be based on rounds participation, case management and 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 21-22 February 3 – February 16, 2020
February 10-14, 2020 (OVC)
Weeks 29-30 March 30 – April 12, 2020
March 30 – April 3, 2020 (OVC)

**2nd Week at WCVM Ruminant Field Service**

STUDENT NUMBERS: 1 students per rotation

PREREQUISITE: Completion of VLAC 453 (Third Year Dairy Elective)
Completion of one Ruminant Field Service rotation.

DESCRIPTIVE: The Campbell Centre for the Study of Animal Welfare (CCSAW) and Saputo Inc. have partnered to create The Saputo Dairy Care Program in the Ontario Veterinary College at the University of Guelph.

First Meeting: At 0830 h on the first day of the rotation, the students will meet in Room TBD for orientation.

Goals: The goal of the rotation is to contribute to student achievement of selected Phase-4 competencies by providing experiences, practice & structured learning opportunities in the context of dairy cattle welfare. This rotation aims, in particular, to provide hands-on experience in practical welfare assessment and communication.

Teaching Objectives:
• Provide the resources for students to develop & refine their knowledge of professional, 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 in conducting assessments 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: Students will accompany & participate in practical welfare assessments on 2 dairy farms, together with selected clinicians and faculty from the Ontario Veterinary College. A livestock auction market and a veal farm will also be visited to further assess the welfare of dairy animals beyond the traditional context of the working dairy.

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 Issues:**

1. At 0830 h on the first day of the rotation, the students will meet in Room TBD for orientation.
2. Students must arrive each day thereafter with nametag, at least 2 pairs of clean coveralls, & steel toe boots (or equivalent protection), & something to write with. Bring a lunch or money to purchase it. Dress appropriately; you will often be working outside as well as in a variety of barn / farm facilities. **All students will be provided with disposable boot covers and students external to OVC will be provided with coveralls.**
3. Come prepared! Review Canada’s Dairy Code of Practice, on-line information from Dairy Farmers of Canada related to proAction and the Animal Care component of that, in particular. Students should also have a basic familiarity with the animal welfare legislation from Ontario or their home province (for students attending from other Colleges).

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

ROTATION CODE: PVB

INSTRUCTOR: Dr. Wendy Schmaltz

DURATION: 2 weeks

TIMING: pre-draft application procedure
27 – 28 March 16, 2020 – March 29, 2020

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.
Poultry Diagnostic & Field Service

ROTATION CODE: POU

INSTRUCTOR: Drs. S. Gomis and Tyra Dickson (Poultry Extension Veterinarian)

DURATION: 2 weeks

TIMING: Weeks 31-32 April 13, 2020 – April 26, 2020

STUDENT NUMBERS: 4 students per rotation

DESCRIPTIVE: This elective rotation in Poultry Diagnostic Pathology and Field Service will be offered once and is open to four students who have a strong interest in food animal production. The objectives are to expose the students to the commercial poultry industry, disease diagnosis, management of disease problems and nutrition related problems in the field. It will consist of field trips to commercial broiler, broiler breeder, table egg-layer, turkey, duck and gees hatchery, processing plant, hatchery, feed mill and the Research Facilities at the Animal and Poultry Science and VIDO.
**Regulatory Veterinary Medicine**

<table>
<thead>
<tr>
<th>ROTATION CODE:</th>
<th>REG</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSTRUCTORS:</td>
<td>Dr. Lisa Wayman (CFIA)</td>
</tr>
<tr>
<td>DURATION:</td>
<td>2 weeks</td>
</tr>
<tr>
<td>TIMING:</td>
<td>Weeks 31-32 April 13 – April 26, 2020</td>
</tr>
<tr>
<td>STUDENT NUMBERS:</td>
<td>5 - 15 students</td>
</tr>
<tr>
<td>DESCRIPTIVE:</td>
<td>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.</td>
</tr>
</tbody>
</table>

* A student may take this rotation only once.

| CONTACT: | Dr. S. Manning |
Remote Clinical Practice Rotation

**ROTATION CODE:** SREM REMCP

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

**DURATION:** 2 weeks

**TIMING:**
- Summer
  - May 6 – May 19, 2019
  - Weeks 1 – 2
  - September 3, 2019 – September 15, 2019

**STUDENT NUMBERS:** 8 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 public 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 have opportunities to participate in community-based education programs.

**Objectives:**

While on rotation, students will:

- Identify and discuss challenges faced by remote communities (animal overpopulation, animal welfare challenges, public health issues, political and cultural challenges, economic challenges)
- Rationalize the delivery of veterinary or public health services from outside parties
- Formulate strategic plans for 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 administration and maintenance during elective surgeries
- Elicit thorough histories through discussions with clients
- Perform complete physical examinations and pre-surgical assessments
- Formulate wellness plans for patients based on signalment, history and physical exam findings
- Demonstrate sound judgment in selection of animals fit for anesthesia and surgery
- Describe characteristics of diseases commonly seen in remote areas that may not be common in urban small animal practice
- Demonstrate peer mentoring skills
- Demonstrate effective communication with clients, peers, instructors and volunteers
- Develop and engage in educational seminars for local school children
- Recount the impact of the experience on themselves, the community and the animals through a final oral presentation to veterinary student peers

**Schedule (subject to change):**
Tuesday – Wednesday: orientation and preparation at WCVM
Thursday – Sunday: Clinic activities in La Ronge
Monday: return to Saskatoon; remainder of day off
Tuesday: unpack; begin debrief
Wednesday: detailed debrief; begin work on presentations
Thursday: Continue work on presentations
Friday: feedback and wrap up discussions; presentations to college community

Evaluation:
Students will be evaluated on achievement of the above objectives. Communication skills, planning foresight, cultural sensitivity, knowledge and clinical competencies will be assessed. Individuals are expected to demonstrate improved efficiency in patient assessment, surgery and anesthesia through the rotation. Students will be evaluated on their ability to develop and engage in interactive veterinary-themed seminars to school children in the community. Students will be required to submit a reflective journal chronicling their experiences as part of their grade. Students 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. Lianne McLeod, Dr. Tasha Epp

DURATION: 2 weeks

TIMING: Weeks 13 – 14 November 25, 2019 – December 8, 2019

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. C. Palmer, Dr. D. Dadarwal

DURATION: 2 weeks

TIMING: Weeks 27-28 March 16 – March 29, 2020

STUDENT NUMBERS: 8 students

DESCRIPTIVE: We plan to breed 15 sheep to lamb during the rotation. The rotation will cover antenatal care, obstetrics, postpartum evaluation of the mother and neonatal care of ruminant species. The rotation will include practical hands on experience and seminars. There will be an on call schedule to care for the animals.

PREREQUISITE: A student must have taken two of three following 3rd year electives:

Beef Industry elective or the Advanced Bovine/Ruminant Medicine elective or the Bovine Nutrition elective.
Saskatchewan Provincial Government (Regina)

**ROTATION CODE:** SPG

**INSTRUCTOR:** Animal Health Unit

**DURATION:** 2 weeks

**TIMING:** Weeks 29-30 March 30, 2020 – April 12, 2020

**STUDENT NUMBERS:** up to 2 students per rotation

**DESCRIPTIVE:**

**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.

**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.

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

Review and compare provincial legislation and decide on the best way to enforce the humane care of animals.

**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 some 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.

**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. Betty Althouse (betty.althouse@gov.sk.ca) and Kathryn Tonita
kathryn.tonita@gov.sk.ca
Small Animal Medicine

ROTATION CODE: SAM

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

DURATION: 4 weeks

TIMING:

1 – 4  September 3, 2019 –  September 29, 2019
5 – 8  September 30, 2019 –  October 27, 2019
9 – 12 October 28, 2019 –  November 24, 2019
13 – 16 November 25, 2019 –  December 20 (6PM), 2019
17 – 20 January 6, 2020 –  February 2, 2020
21 – 24 February 3, 2020 –  February 27 (6PM), 2020
29 – 32 March 30, 2020 –  April 26, 2020

STUDENT NUMBERS: 9-10 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 Clinical Nutrition

ROTATION CODE: SAN
INSTRUCTOR: Dr. T. Owens
DURATION: 2 weeks

TIMING:

<table>
<thead>
<tr>
<th>Student Numbers</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 4</td>
<td>September 16, 2019</td>
<td>September 29, 2019</td>
</tr>
<tr>
<td>7 - 8</td>
<td>October 15, 2019</td>
<td>October 27, 2019</td>
</tr>
<tr>
<td>11 - 12</td>
<td>November 12, 2018</td>
<td>November 24, 2019</td>
</tr>
<tr>
<td>15 - 16</td>
<td>December 9, 2019</td>
<td>December 20 (6PM), 2019</td>
</tr>
<tr>
<td>17 - 18</td>
<td>January 6, 2020</td>
<td>January 19, 2020</td>
</tr>
<tr>
<td>21 - 22</td>
<td>February 3, 2020</td>
<td>February 16, 2020</td>
</tr>
<tr>
<td>27 - 28</td>
<td>March 16, 2020</td>
<td>March 29, 2020</td>
</tr>
<tr>
<td>31 - 32</td>
<td>April 13, 2020</td>
<td>April 26, 2020</td>
</tr>
</tbody>
</table>

STUDENT NUMBERS: 4

DESCRIPTIVE: The rotation will focus on practical application of principles in small animal nutrition to common scenarios in practice and developing the nutrition related competencies expected of graduating veterinarians, as established by the ACVN. A combination of topic rounds, nutrition 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. Examples of important features will be nutritional management of healthy dogs and cats, as well as those with common nutritionally-managed diseases such as obesity, renal/urinary disease, and gastrointestinal disease. The rotation is intended to allow students to develop confidence in both nutritional management and client communication regarding nutrition. A focus will be placed on ensuring that students are capable of applying basic nutritional principles and utilizing available resources to manage nutrition-responsive diseases, as well as comfortable answering the most 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. Linn, A. Aertsens, K. Aoki

DURATION: 2 weeks

TIMING:

1 – 2  September 3, 2019 – September 15, 2019
3 – 4  September 16, 2019 – September 29, 2019
5 – 6  September 30, 2019 – October 14, 2019
7 – 8  October 15, 2019 – October 27, 2019
9 – 10  October 28, 2019 – November 11, 2019
11 – 12 November 12, 2019 – November 24, 2019
13 – 14 November 25, 2019 – December 8, 2019
15 – 16 December 9, 2019 – December 20 (6PM), 2019
17 – 18 January 6, 2020 – January 19, 2020
19 – 20 January 20, 2020 – February 2, 2020
21 – 22 February 3, 2020 – February 16, 2020
23 – 24 February 17, 2020 – February 27 (6PM), 2020
27 – 28 March 16, 2020 – March 29, 2020
29 – 30 March 30, 2020 – April 12, 2020
31 – 32 April 13, 2020 – April 26, 2020

STUDENT NUMBERS: 5 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 Animal Elective Surgery

ROTATION CODE: SASE

INSTRUCTORS: Dr. D. de Rantere

DURATION: 2 weeks

TIMING:

1 – 2  September 3, 2019 – September 15, 2019
3 – 4  September 16, 2019 – September 29, 2019
5 – 6  September 30, 2019 – October 14, 2019
7 – 8  October 15, 2019 – October 27, 2019
9 – 10 October 28, 2019 – November 11, 2019
11 – 12 November 12, 2019 – November 24, 2019
13 – 14 November 25, 2019 – December 8, 2019
15 – 16 December 9, 2019 – December 20 (6PM), 2019
19 – 20 January 20, 2020 – February 2, 2020
21 – 22 February 3, 2020 – February 16, 2020
23 – 24 February 17, 2020 – February 27 (6PM), 2020
27 – 28 March 16, 2020 – March 29, 2020
29 – 30 March 30, 2020 – April 12, 2020
31 – 32 April 13, 2020 – April 26, 2020

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 Ruminant**

**ROTATION CODE:** SR  

**INSTRUCTORS:** Dr. C. Clark  

**DURATION:** 2 weeks  

**TIMING:** Weeks 25 – 26  
March 3, 2020 – March 16, 2020  

**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.  

This course is not recommended for pregnant students.
Summer – Emergency & Critical Care

**ROTATION CODE:** SECC

**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:** August 19-September 3, 2019

**STUDENT NUMBERS:** 6 students per rotation

**DESCRIPTIVE:** This course will contain both clinic work as well as didactic learning with rounds and an emergency procedure lab. Lectures will be case-based and will focus on emergency cases. The lab will take place in the BJ Hughes Sim lab and will incorporate procedures as well as some common scenarios to work through.

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, 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.

Students will prepare a client handout/info sheet and a short presentation (<15 minutes) to classmates at the end of the rotation on a common emergency condition of their choice.

**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 skills or procedures which may be simulated or discussed include:

- Techniques for cardiopulmonary resuscitation (CPR)
- Utilization of the ultrasound in the emergency room
- Thoracentesis (diagnostic and therapeutic)
- Abdominocentesis (diagnostic and therapeutic)
- Approach to chest tube placement
- Approach to pericardiocentesis
- Fluid therapy in emergency and critical care
  - Cystoards
  - 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.)
Summer – Large Animal 6-Week Rotation

INSTRUCTORS: Drs. T. Afonso, S. Barber, J. Bracamonte, C. Card, J. Carmalt, C. Clark, S. Manning, J. Montgomery, F. Uehlinger and D. Wilson

DURATION: 6 weeks

TIMING: Summer April 29 – June 9, 2019

STUDENT NUMBERS: 16 students (4 students will be assigned on a rotating basis to 3 of the 4 two week module of the 6 week block).**

DESCRIPTIVE:

Large Animal Surgery Section (2 weeks) – Code: SULS
Students will be involved in all aspects of management on Veterinary Medical Centre equine surgical patients. This is a busy time of year for the equine surgery service with a broad range of soft tissue and orthopaedic cases. This provides an excellent exposure to the types of cases commonly presented to both a first opinion practice and referral hospital. Students are encouraged to take further large animal surgery rotations at other times of the academic year to expand the depth of their education. Rounds are held each day with faculty. Students will be busy during the day and will participate equally in after-hours night duty including monitoring post-operative surgical cases.

Large Animal Medicine Section (2 weeks) – Code: SULM
Students will be involved in all aspects of management of Veterinary Medical Centre equine and food animal patients. This is a busy time of year with a strong component of equine medicine (including foals). This provides an excellent exposure to the types of cases commonly presented to a hospital that handles both primary and tertiary care cases. Students are encouraged to take further large animal medicine rotations at other times of the academic year to expand the depth of their education. Rounds are held each day with faculty. Students will be busy during the day and will participate in after-hours night duty including monitoring critical cases such as medical colics and ‘foal watch’.

Equine Field Service Section (2 weeks) Code: SUFS **Equine Nutrition pre-req required
Students will be involved in stable, farm, and racetrack equine cases. The students will be involved in all common areas of equine practice such as dentistry, wound management, lameness examination, field radiography, endoscopy, reproduction, pre-purchase examinations, and clinical case assessment. Night duties are assigned and coordinated through field service.

Theriogenology (2 weeks) Code: SUTH
The objective of this 2-week experience is to develop expertise in clinical skills and increase knowledge and understanding of Theriogenology. Students will work with teaching animals and clinical cases. Students will have the opportunity to gain clinical skill in equine palpation, semen collection and semen analysis. There may be some exposure to other species.

* A student may take this rotation only once.
Summer Ruminant Field Service

ROTATION CODES: SUCC

INSTRUCTORS: Dr. N. Erickson

DURATION: 2 weeks

TIMING: Summer

STUDENT NUMBERS: 3 students

DESCRIPTIVE: The goal of this rotation is to introduce the students to the role of veterinarians providing health management services to beef cow-calf operations. Students will be given the opportunity to tour various farm operations and appreciate the differences in management that exist within the industry. There may be the opportunity to participate in herd outbreak investigations when available and other clinical work such as calf processing and bull breeding soundness evaluations in cow-calf herds in the area. Seminars with WCVM faculty and invited speakers will focus on nutrition and pasture management, records and data analysis, genetics, reproductive management, weaning strategies, along with economic and marketing tools for cow-calf producers. It is advised that students electing to take this rotation should have a strong focus on food animal production medicine.

* A student may take this rotation only once.
Summer – UCVM Equine Dentistry

ROTATION CODE: SUCVMD

INSTRUCTORS: Dr. Darlene Donszelmann
email: djdonsze@ucalgary.ca
Phone: 403-210-6397

DURATION: 2 weeks

TIMING: Summer June 17 – 28, 2019

STUDENT NUMBERS: 1 students per rotation

DESCRIPTIVE: This is a 2 week elective rotation focusing on equine dentistry. An experienced veterinarian with advanced training in equine veterinary dentistry will deliver the rotation.

Goal(s) of the rotation:
The diagnostic and treatment procedures in this rotation are intended to develop clinical competence and confidence as an entry-level equine veterinary practitioner as well as to introduce the skills, knowledge, and equipment available in the industry.

Expected outcomes:
Students will become confident and gain experience in performing routine equine dental procedures.

1. Field anesthesia, dental examination and charting
2. Dental restraint and anesthesia
3. Preventative care and maintenance of various age groups of horses (routine floating, bit seats, wolf teeth, deciduous cap and molar extractions, and malocclusions)
4. Dental and skull radiographs (technique and interpretation)
5. Client communications, and emergency procedures
6. Familiar with the management and marketing of equine dental services and public relations surrounding equine dentistry
7. Become aware of and know the indications for advanced techniques, extractions, and surgery available to treat equine diseases

Details of the rotation (including caseload, personnel, policies, pre-requisites, insurance requirements, expectations, assignments, extra costs involved, evaluation):
The rotation will be composed of 4-6 days at CSB and 4-6 days of field experience, split into the two weeks. The CSB component will involve lectures, case presentations, and wet labs using cadaver heads. These will be delivered by a faculty member. The rotation will also involve significant travel and dentistry experience in the field. Knowledge and skills previously acquired in VM405
Clinical Skills II and VM505 will be reviewed and practiced. Students should come prepared to spend several long and arduous days in the field where we will typically be providing, alongside DVLC practitioners as a community service, equine dental care for horses utilized in non-profit organizations.

**Evaluation:**
Students will be evaluated on their performance in the labs and field experience, as well as on an evidence based learning presentation and clinical rounds.

**Delivery:**
The schedule of the rotation is very much dependent upon the scheduling of the field experiences. The schedule will be announced about one week prior to the rotation and is subject to last minute changes. Lectures, labs, guest speaker(s), and a communications case may be interspersed in the two weeks. Students will be required to present a paper in journal club style.

Accommodation will be provided in the event that an overnight stay is required due to timing, travel and distance considerations. Typically the rotation involves one overnight stay in the field.

**Travel and Accommodation:** Student is responsible for their own travel, accommodations and living expenses while there.

* A student may take this rotation only once.
Summer - UCVM Equine Lameness Rotation

ROTATION CODE: UCVML

INSTRUCTORS: Dr. Alfredo Romero
email: alfredo.romero@ucalgary.ca
Phone: 403-210-7877

DURATION: 2 weeks

TIMING: Summer August 12 – 25, 2019

STUDENT NUMBERS: 1 students per rotation

DESCRIPTIVE: This 2 week elective rotation will be offered at the Clinical Skills Building and will focus on lameness diagnosis and treatment in horses. Students will have the opportunity to work up lameness cases including lameness examination, diagnostic imaging, and treatment modalities. ‘Purpose acquired teaching’ horses will be used during this rotation, giving students the opportunity to work at their own pace and to practice a wide variety of diagnostic and therapeutic techniques. This is a hands-on rotation where each pair of students will work up their own lame horses. This rotation is open to 10 students maximum. Students taking the Equine AoE will be given priority.

Expected outcomes:
The intent is for the students to develop the necessary skills to become competent in basic lameness diagnosis and management in horses.

Details of the rotation (including caseload, personnel, policies, prerequisites, insurance requirements, expectations, assignments, extra costs involved, evaluation):
Horses will be purpose bought for this rotation or sourced from clinical material in the DVLC. Students will have their own horse to work on and will work in pairs to diagnose and treat their cases. The first week of this rotation will be a comprehensive review of clinical lameness diagnostics, regional anesthesia and joint injection techniques as well as diagnostic imaging skills (including ultrasound, and radiography). Alternative imaging and treatment modalities will be discussed and incorporated where appropriate (shockwave, hydrotherapy, mesotherapy, acupuncture, chiropractic, etc.). Digital lameness diagnostic aids will be incorporated (lameness locator). Clinical anatomy and physical examination techniques will be emphasized. In the second week of this rotation students will be given live horses with actual clinical lameness problems. They will be asked to work independently to diagnose the lameness condition in their horse. They will be given free access to diagnostic materials and instructor input/advice. The emphasis will be on the student performing the diagnostic tests and interpreting them by themselves (accessing and consulting the literature as needed). The instructor and the student will then devise a treatment plan, which may include such treatments a shoeing, joint injections, arthroscopy, etc. Treatments will be implemented on individual cases as required for therapy and teaching purposes being mindful of the limitations of the course budget and the overall learning experience to be gained. This rotation will include some medical report writing and a brief case presentation to the group.

* A student may take this rotation only once
Summer – UCVM Small Animal Dentistry

ROTATION CODE: SABDENT

INSTRUCTORS: Dr. Darlene Donszelmann
email: djdonsze@ucalgary.ca
Phone: 403-210-6397

DURATION: 2 weeks

TIMING: Summer May 6 - 17, 2019

STUDENT NUMBERS: 1 students per rotation

DESCRIPTIVE: The Small Animal Dental Skills Rotation will be a blended rotation consisting of lectures, case discussions, labs, cadaver labs, hands-on live animal labs, and an integrated communication lab at CSB, Spy Hill Campus. The rotation will utilize a multidisciplinary approach (instructed mainly by Drs. Donszelmann, Archer, and Read) and results in significant exposure to both anesthesia management during dental procedures (lectures, discussions, case management, and hands-on skills) and routine small animal dentistry (anatomy, equipment, oral exam, radiographs, treatments and extractions, medicine, dental disease and prevention, communications skills, and practice management). By the end of this rotation students will have significant practical experience of managing patients from the initial consultation and evaluation until completion of the planned procedure(s) including all necessary post-procedure follow-up.

Goal(s) of rotation:
Participants will be able to:
1. Perform a complete dental examination and routine dental prophylaxis on cats and dogs.
2. Describe, discuss and identify systemic disease and geriatric anesthesia concerns as they relate to small animal dentistry
3. Describe, discuss and identify systemic disease as it relates to dental disease
4. Practice and perform full mouth radiographs; read and interpret them and be able to discuss with clients
5. Discuss and determine appropriate anesthesia and analgesia protocols for individual dental patients
6. Practice and perform local anesthesia blocks needed for dental procedures
7. Induce, maintain and recover individual dental patient’s anesthesia
8. Practice post-surgical nursing care
9. Maintain appropriate medical records
10. Practice and perform basic and complex surgical extractions on cadavers
11. Perform basic extractions on individual dental patients
12. Describe malocclusions and other dental diseases
13. Identify and describe the need for referral and specialty care
14. Practice client communication with regards to case management
15. Practice client discharge instructions including long term care instructions
16. Determine the role of small animal dentistry in small animal and rural multispecies practice
17. Explore business considerations of small animal dentistry
18. Describe how routine lagomorph dental maintenance is performed

Details of the rotation (including caseload, personnel, policies, prerequisites, insurance requirements, expectations, assignments, extra costs involved, evaluation)
Pairs of students will be responsible for performing anesthesia and routine dental procedures on animals. Students will be responsible for other aspects of case management including records, pre-operative and post-operative care. The responsibilities of evening post-operative assessments (as necessary 3-4 nights) will be divided equally amongst rotation participants.

Caseload: Each student will be involved in 2-3 complete dental procedures and 2-3 anesthesia procedures. There will be ample opportunity to work with cadavers in the labs.

Evaluation: Participants will be assessed using a Student Performance Evaluation on One45. Assessment will be based on student performance in case management (anesthesia, dentistry, and post-op care); case presentation; quality of involvement in clinical rounds and discussions; and communications.

Hours of work and expectations for on-call:
Typically 8:00 am – 5:00 pm work hours. In addition, students will divide equally about 3-4 evenings of post-operative checks amongst all participants in the rotation (e.g one evening per student).
Swine Practice - SK

ROTATION CODE: SWI1

INSTRUCTOR: Dr. J. Harding

DURATION: 2 weeks

TIMING: Weeks 7 – 8 October 15, 2018 – October 27, 2019

STUDENT NUMBERS: 4 students

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 tours 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 will likely include a 2-3 day trip out of province.

* This rotation is only offered once.

* Pre-requisite: Swine Production Elective, VLAC 439.2. In special circumstances, students may be permitted enrol in SWI with permission of the instructor following the draft.
Swine Practice – IOWA (SMEC 480)

ROTATION CODE: SWI

INSTRUCTOR: Dr. J. Harding and Dr. Locke Karriker (ISU)

DURATION: 2 weeks

TIMING: SMEC 480: Weeks 23-24 February 3-16, 2020
SMEC 480: Weeks 27-28 March 16 - 29, 2020

STUDENT NUMBERS: 4 students

PREREQUISITE: Swine Production Elective, VLAC 439.2 and Swine Practice (SK)

DESCRIPTIVE: This is the flagship course offered in conjunction with the Swine Medicine Education Centre (SMEC), Iowa State University. The rotation is meant to provide concentrated studies in swine medicine and modern swine production. They take place in Ames IA, and include complementary registration and accommodation. Travel to Iowa, food and out of pocket expenses are to be covered by the student, but travel bursaries may be available to help offset some of the costs. Because of the limited enrolment, it is encouraged that only students with a sincere interest in swine medicine and production should select this rotation.

SMEC 480: Swine Production Medicine Clinical Rotation. This experience is one of a kind and enables students to gain valuable knowledge about the swine industry, develop and practice clinical and production management skills, experience swine veterinary practice, and further develop communication skills. This course is focused on disease investigation and diagnostics. Course activities will include herd visits, directed discussions on disease and production, and class presentations.

Objectives:

- Participants will be able to review and analyze hands-on practice of clinical swine veterinary techniques including: population observation and data collection strategies
- Participants will have the basic competencies of animal handling and restraint, ante-mortem diagnostic sample collection, humane euthanasia
- Participants will be able to analyze post-mortem samples and learn the process of submitting diagnostic samples to the laboratory.

Following the rotation, a detailed report is to be completed by each student, which can be submitted by email to Dr. Harding.

* This rotation is only offered twice and is subject to a minimum enrolment determined by the ISU coordinators.
Toronto Humane Society Shelter Medicine Rotation

ROTATION CODE: THS

INSTRUCTOR: Dr. Laura Balanoff (Staff Veterinarian),
Dr. Dani Boes (Staff Veterinarian – responsible for developing rotation curriculum)
Dr. Megan Haines (Staff Veterinarian)
Dr. Linda Jacobson (Senior Manager, Shelter Medicine Advancement)
Dr. Zaki Jafry (Staff Veterinarian)
Dr. Shalini Ramsubeik (Staff Veterinarian)
Dr. Rob Rock (Staff Veterinarian)
Dr. Kyla Townsend (Staff Veterinarian)
Dr. Karen Ward (Chief Veterinary Officer)

DURATION: 2 weeks

TIMING: pre-draft application procedure

STUDENT NUMBERS: 2 students per rotation (exceptions maybe considered for single student placement on a case by case basis)

DESCRIPTIVE: Open to all senior year veterinary students interested in animal welfare, shelter medicine and community veterinary practice.

Goals:
1. Broad overview of shelter medicine, it’s challenges & rewards
2. Exposure to a busy, well-resourced shelter with capacity for extensive surgical and medical case management
3. Understanding how sheltering best practices improve health, welfare, length of stay and life-saving capacity
4. Exposure to population management and pathway planning in shelters
5. Exposure to common medical and behavioural reasons for relinquishment and how to manage them in an animal shelter
6. Understanding the roles of both shelter veterinarians and private practice veterinarians in creating a humane society
7. Exposure to not-for-profit public veterinary care

Components:
1) INTAKE
   a) All animals arriving at the shelter receive a complete physical exam, assessment, intake procedures and pathway plan
   b) Includes foster exams, newly adopted, strays, emergencies, surrenders and transfers
2) FELINE MEDICINE
   a) All medicine shifts include:
      i) Rounds
      ii) Case work up and management
      iii) Full in house lab including fungal culture lab, digital radiography, ultrasound
      iv) Assessment and interpretation of diagnostics
3) SPECIAL SPECIES MEDICINE
4) CANINE MEDICINE
5) HIGH-QUALITY-HIGH-VOLUME-SPAY-NEUTER SURGERY
   a) Based on the Humane Alliance model
b) Services a combination of owned animals, rescue and shelter animals
c) 5,600 spay/neuter surgeries performed in 2018

6) SHELTER SURGERY
   a) A wide variety of surgical procedures, including but not limited to
      i) Rabbit spays/neuters and dentals
      ii) Dentistry including digital dental radiography
      iii) Gastrotomy, enterotomy
      iv) Cystotomy
      v) Mass removals
      vi) Amputations
      vii) FHO
      viii) Enucleation, cherry eye repair, entropion/ectropion correction

7) PUBLIC VETERINARY SERVICES
   a) Vaccinations, wellness exams and blood work, pre-surgical and pre-
      dental consultations, owner requested euthanasias, post-operative
      concerns amongst others

8) CANINE TRAINING DEPARTMENT
   a) Public training classes, shelter training classes, behaviour modification
      plans
   b) In shelter enrichment plans
   c) Most of our trainers are CPDT-KA certified, or tracking towards
      certification

9) FELINE TRAINING DEPARTMENT
   a) In shelter and foster home training and enrichment plans, behaviour
      modification
   b) Department led by Dr. Jackie Ellis, Animal Behaviour Scientist
   c) Managing litterbox concerns including inappropriate urination &
      defecation

10) LABORATORY
    a) Exposure to our in-house IDEXX lab with dedicated RVT; CBC,
       Chemistries, cytology, fecals, urinalysis, fungal cultures

11) ADOPTIONS
    a) New hire presentation on “Adopters Welcome”

RESOURCES TO REVIEW PRIOR TO THE ROTATION:

Please watch the following videos:
- The first 60 minutes webinar by Dr. Brian DiGangi
  - https://www.maddiesfund.org/the-first-60-minutes-webcast.htm
- Flow through planning webinar by Dr. Elizabeth Berliner
- Making the case for a paradigm shift in community cat management by Dr. Kate
  Hurley
  - https://www.maddiesfund.org/making-the-case-for-community-cats-part-
    one.htmaksfkdsaj
- ASPCA Humane Alliance YouTube videos:
  - Pedicle ties: https://www.youtube.com/watch?v=seutiRrHtQI
  - Puppy scrotal neuter: https://www.youtube.com/watch?v=WqwLHiSnboQ
  - Modified miller’s knot (aka “strangle knot” per ASPCA):
    https://www.youtube.com/watch?v=vUJR5zj2Pyo
  - Incision placement: https://www.youtube.com/watch?v=q9Z0pr2xBsQ
  - Spay hook use: https://www.youtube.com/watch?v=6HNz6RzMRE

Please browse and be familiar with generally (don’t need to study/memorize
these documents!):
- The Association of Shelter Veterinarians (ASV) Guidelines for Standards of
  Care in Animal Shelters
The Association of Shelter Veterinarians (ASV) Spay – Neuter Guidelines

Toronto Humane Society Protocols on Dropbox. Please browse/be familiar with the following protocols in order of importance: (link will be shared with students prior to rotation)

- Vaccination protocols
- URI
- Kennel cough
- Diarrhea (acute)
- Kitten protocols
- Ringworm
- Felv
- FIV
- Inappropriate urination
- Inappropriate defecation
- Parvovirus (feline and canine)
- GI parasites generally (i.e. coccidia, roundworms, hookworms etc.)

Please visit these websites:
- Ontario Shelter Medicine Association (OSMA)
  - https://www.ontariosheltermedicine.org/
- Maddie’s Fund
  - https://www.maddiesfund.org/index.htm
- ASPCA Spay and Neuter Alliance (formally Humane Alliance)
  - https://www.aspca.org/humane-alliance
- Association of Shelter Veterinarians (ASV)
  - https://www.sheltervet.org/
- University of Florida Shelter Medicine Online Courses
  - https://onlinesheltermedicine.vetmed.ufl.edu/KjashlfkjsahStudents are responsible for arranging their own transportation and accommodation

CONTACT:
Dr. Dani Boes dboes@torontohumanesociety.com
Dr. Karen Ward kward@torontohumanesociety.com
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
Vaccine & Infectious Disease Organization (VIDO)

(Evaluation of Vaccine Efficacy and New Vaccine Technologies)

ROTATION CODE: VID

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

DURATION: 2 weeks

TIMING: Weeks 17-18 January 6 – January 19, 2020

STUDENT NUMBERS: 3 – 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
6) neonatal vaccination
7) safety and efficacy of commercial vaccines.
Wellness and Preventative Medicine

ROTATION CODE: WPM

INSTRUCTOR: Dr. Karen Sheehan and Dr. Jordan Woodsworth

DURATION: 2 weeks

TIMING:

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 6</td>
<td>September 30, 2019 –</td>
<td>October 14, 2019</td>
</tr>
<tr>
<td>7 – 8</td>
<td>October 15, 2019   –</td>
<td>October 27, 2019</td>
</tr>
<tr>
<td>9 – 10</td>
<td>October 28, 2019 –</td>
<td>November 11, 2018</td>
</tr>
<tr>
<td>11 – 12</td>
<td>November 12, 2018 –</td>
<td>November 24, 2019</td>
</tr>
<tr>
<td>13 – 14</td>
<td>November 25, 2019 –</td>
<td>December 8, 2019</td>
</tr>
<tr>
<td>15 – 16</td>
<td>December 9, 2019 –</td>
<td>December 20 (6PM), 2019</td>
</tr>
<tr>
<td>17 – 18</td>
<td>January 6, 2020 –</td>
<td>January 19, 2020</td>
</tr>
<tr>
<td>19 – 20</td>
<td>January 20, 2020 –</td>
<td>February 2, 2020</td>
</tr>
<tr>
<td>21 – 22</td>
<td>February 3, 2020 –</td>
<td>February 16, 2020</td>
</tr>
<tr>
<td>23 – 24</td>
<td>February 17, 2020 –</td>
<td>February 27 (6PM), 2020</td>
</tr>
<tr>
<td>27 – 28</td>
<td>March 16, 2020 –</td>
<td>March 29, 2020</td>
</tr>
<tr>
<td>29 – 30</td>
<td>March 30, 2020 –</td>
<td>April 12, 2020</td>
</tr>
<tr>
<td>31 – 32</td>
<td>April 13, 2020 –</td>
<td>April 26, 2020</td>
</tr>
</tbody>
</table>

STUDENT NUMBERS: 4 students per rotation

DESCRIPTIVE: Objectives: To provide students with a solid foundation in wellness and Preventative 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 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 the client in order to learn the importance of high-quality 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)
Tuesdays: 8:30am to 5:00pm
Wednesdays: 12:00pm to 8:00pm
Thursdays: 8:30am to 5:00pm
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 understand the importance of wellness and preventive medicine as they relate to the development and maintenance of a sustainable client base in general practice
2. To improve communication skills to optimize client interactions and history taking
3. To develop and improve clinical efficiency while maintaining a high standard of relationship-centred care
4. To become aware of the controversies surrounding conventional wellness and preventive veterinary medicine and to learn how to critically evaluate available biologics and pharmaceutical products and their alternatives
5. To gain a foundation in the clinical application of small animal nutrition and how to discuss diet-related issues with clients
6. To understand the veterinarian’s role as an animal welfare advocate
7. To understand the veterinarian’s role in fostering and supporting the human-animal Bond
8. To understand the concept of ‘One Health’ and what we can do to support the interface of human and animal health in our communities
Western Canada Veterinary Eye Specialists

ROTATION CODE: WCVO

INSTRUCTOR: Dr. Charlotte Keller and Dr. Christina King

DURATION: 2 weeks

TIMING:
- Weeks 1-2: September 3 – September 15, 2019
- Weeks 5-6: September 30 – October 14, 2019
- Weeks 17-18: January 6 – January 19, 2020
- Weeks 21-22: February 3 – February 16, 2020
- Weeks 25-26: March 3 – March 15, 2020

STUDENT NUMBERS: 1 student per rotation

DESCRIPTION: The student will spend two weeks in a private specialty practice for veterinary ophthalmology. There will be opportunity to see and examine a large number of small animal patients with different ocular problems and to watch a wide variety of ophthalmic surgeries. The practice is open from Monday to Friday 8am to 5pm.

* A student may take this rotation only once

CONTACT: Dr. Charlotte Keller - keller@bcanimaleyes.com
Wildlife Health and Disease

ROTATION CODE: WHD
INSTRUCTOR: Dr. T. Bollinger
DURATION: 2 weeks
TIMING: 
- Weeks 1-2: September 3 – September 15, 2019
- Weeks 25-26: March 3 – March 15, 2020
- Weeks 31-32: April 13 – April 26, 2020
STUDENT NUMBERS: 2 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, field and laboratory work, lectures and class-room discussions. 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.

* 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:

<table>
<thead>
<tr>
<th>Period</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 – 4</td>
<td>September 16, 2019</td>
<td>September 29, 2019</td>
</tr>
<tr>
<td>5 – 6</td>
<td>September 30, 2019</td>
<td>October 14, 2019</td>
</tr>
<tr>
<td>19 – 20</td>
<td>January 20, 2020</td>
<td>February 2, 2020</td>
</tr>
<tr>
<td>31 – 32</td>
<td>April 13, 2020</td>
<td>April 26, 2020</td>
</tr>
</tbody>
</table>

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 opioids, 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-vasectomy / 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](mailto: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:

1 – 2 September 3, 2019 – September 15, 2019
3 – 4 September 16, 2019 – September 29, 2019
7 – 8 October 15, 2019 – October 27, 2019
9 – 10 October 28, 2019 – November 11, 2019
11 – 12 November 12, 2019 – November 24, 2019
23 – 24 February 17, 2020 – February 27 (6PM), 2020
27 – 28 March 16, 2020 – March 29, 2020
29 – 30 March 30, 2020 – April 12, 2020
31 – 32 April 13, 2020 – April 26, 2020

STUDENT NUMBERS: 2-4 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.