PRESENTED BY: Susan Detmer; Chair, Academic Programs Committee

DATE OF MEETING: December 19, 2019

SUBJECT: Curriculum Revision for Doctor of Veterinary Medicine (DVM) Program

DECISION REQUESTED: *It is recommended:
That Council approve the replacement program for the Doctor of Veterinary Medicine (DVM) Program, effective May 2020.*

PURPOSE: Significant program revisions require approval at University Council

CONTEXT AND BACKGROUND:

Review of the curriculum for the DVM program is required every seven years as a part of the college’s accreditation process. The Association of American Veterinary Medical Colleges (AAVMC) has developed a competency based veterinary education framework on which these changes are based.

The changes to the curriculum for the DVM program will ensure a greater focus on experiential learning and testing of clinical skills for building clinical competencies earlier in their academic programs. Additionally, the changes to the DVM program will consolidate pre-clinical coursework so that they will be taught by anatomical system rather than subject. Thus, linking knowledge between pre-clinical courses (basic sciences) and reinforcing learning within each anatomical system.

Throughout the process of reviewing the content of program and the allocation of credit units, it became apparent that the allocation of credit units was inaccurate given the number of contact hours in the program, and therefore, the overall number of credit units for the program has increased.
The new program primarily impacts the first year of the program with limited changes in the second year of the program and will be rolled out over a period of three years. The content of 2nd and 3rd year courses will be reviewed during the next two summers.

Consultation was done consistently throughout the revision process with the professional accreditation body. The accreditation body and the WCVM are committed to ensuring that that the DVM program produces entry-level practitioners, and these program revisions will ensure this by providing solid foundation in all areas of veterinary medicine.

The proposed revision of the DVM curriculum was approved at the November 14, 2019 WCVM Faculty Council meeting. The academic programs committee reviewed the proposal at is November 28, 2019 meeting. The committee was pleased with the consultation done in developing this new program and appreciated that this program will meet the new framework for competency based veterinary education. The academic programs committee voted to recommend that Council approve this new program.

ATTACHMENTS:

1. Proposal for Curricular Change – Doctor of Veterinary Medicine
Proposal for Academic or Curricular Change

PROPOSAL IDENTIFICATION

Title of proposal:

Degree(s): Doctor of Veterinary Medicine

Field(s) of Specialization: Veterinary Medicine

Level(s) of Concentration: N/A

Option(s): N/A

Degree College: Western College of Veterinary Medicine

Contact person(s)
Dr. Chris Clark, Associate Dean Academic
Ext 7409, chris.clark@usask.ca

Proposed date of implementation: September 2020

Proposal Document

Please provide information which covers the following sub topics. The length and detail should reflect the scale or importance of the program or revision. Documents prepared for your college may be used. Please expand this document as needed to embrace all your information.

1. Academic justification:
The WCVM has offered a DVM program for more than 50 years. The last major curriculum revision was more than 11 years ago. Given the demands of our accreditation process requires that the curriculum be reviewed at least every 7 years and the development of the AAVMC’s Competency Based Veterinary Education (See Appendix 1); a curriculum renewal process was timely. Furthermore, as we began to look at the curriculum it became apparent that the allocation of course credits no longer matched the true weighting of student effort.
a. Describe why the program would be a useful addition to the university, from an academic programming perspective.
This is essentially a rebalancing of an established curriculum creating a stronger focus on experiential learning.

b. Giving consideration to strategic objectives, specify how the new program fits the university signature areas and/or integrated plan areas, and/or the college/school, and/or department plans.
This is a rebalanced curriculum for a current program creating a stronger focus on experiential learning. The new program also aligns with the WCVM Integration plan. Namely Goal #3, Enriching and expanding the student experience (See Appendix 2). Our objectives include:
   1. Ensure our professional program prepares graduates for engagement in the veterinary profession of the future.
   2. Embrace and celebrate diversity and indigenization.
   3. Champion student engagement in the community.
   4. Enhance clinical experience for DVM students, interns and residents.
   5. Promote a culture of excellence in teaching and learning.

c. Is there a particular student demographic this program is targeted towards and, if so, what is that target? (e.g., Aboriginal, mature, international, returning)
No

d. What are the most similar competing programs in Saskatchewan, and in Canada? How is this program different?
There are no competing program in Saskatchewan. The nearest veterinary school is University of Calgary Veterinary Medicine, which is available only to Alberta residents. At this point, there is no direct competition for applicants as all DVM programs in Canada are regional.

2. Admissions
   a. What are the admissions requirements of this program?
The admission requirements for the WCVM will be unchanged.

3. Description of the program
The DVM is an intensive 4 year program accredited with the American Veterinary Medical, Association Council on Education. The vast majority of our graduates enter general veterinary practice in western Canada where they are licensed by the provincial Veterinary Associations under the appropriate provincial Veterinary Act. The program was last formally accredited in 2017 (see Appendix 3 and 4).

   a. What are the curricular objectives, and how are these accomplished?
The primary objectives of the program are:
   I. To provide essential knowledge and skills required for entry to the DVM profession.
   II. To deliver an integrated and co-ordinated learning experience.
III. To develop capacity for professional and life-long learning.
IV. Support student well-being and development.
V. Be flexible and responsive to changing curricular needs.
(see Appendix 5 - Year 1 Principles and Learning Outcomes)
b. Describe the modes of delivery, experiential learning opportunities, and general teaching philosophy relevant to the programming. Where appropriate, include information about whether this program is being delivered in a distributed format. This is a clinical program involving a great deal of experiential learning with critical thought, application of knowledge and problem solving. The curriculum was developed based on providing students clinical problems with increasing complexity.

c. Provide an overview of the curriculum mapping.
See Appendix 6 for a map of the program to the AAVMC competencies.

d. Identify where the opportunities for synthesis, analysis, application, critical thinking, problem solving are, and other relevant identifiers.
This is a clinical program involving a great deal of experiential learning with critical thought, application of knowledge and problem solving. The curriculum was developed based on providing students clinical problems with increasing complexity.

e. Explain the comprehensive breadth of the program.
This program prepares students to apply for a general veterinary license. This is defined in the Saskatchewan Veterinary Act as: “veterinary medicine” means that branch of knowledge relating to the prevention, diagnosis and treatment of the diseases of and injuries to animals, and includes:(i) diagnosing, advising or prescribing a drug, medical appliance or application or treatment of whatever nature for the prevention or treatment of a bodily injury or disease of animals;”

f. Referring to the university “Learning Charter”, explain how the five learning goals are addressed, and what degree attributes and skills will be acquired by graduates of the program.
See Appendix 7

g. Describe how students can enter this program from other programs (program transferability).
Transfer is not available

h. Specify the criteria that will be used to evaluate whether the program is a success within a timeframe clearly specified by the proponents in the proposal. We will continue to monitor the students’ opinions through the annual surveys, the graduate survey and the 2 year post graduate survey. We will continue to monitor our performance in the NAVLE examination and we will monitor the students’ performance in the annual OSCE examinations. Although we will monitor the outcomes every year it will take 4-6 years from implementation to truly assess the whole program

i. If applicable, is accreditation or certification available, and if so how will the program meet professional standard criteria. Specify in the budget below any costs that may be associated.
The program is currently accredited by the American Veterinary Medical Association (AVMA) Council on Education. All changes will be submitted to the AVMA as part of our annual review. There are no additional budgetary costs associated with this. The next scheduled accreditation visit is 2024.

4. Consultation

The rebalancing of our program started with an accreditation mandated comprehensive curriculum review in 2015. This review process focused extensively on outcomes of the program. This process identified the core strengths of the current program and several areas needing improvement. The process also allowed us to review current theories of veterinary education and determine how to incorporate them into the program.

a. Describe how the program relates to existing programs in the department, in the college or school, and with other colleges. Establish where students from other programs may benefit from courses in this program. Does the proposed program lead into other programs offered at the university or elsewhere?

This program will replace the current DVM program. The DVM program stands alone at the U of S and will not impact other programs.

b. List units that were consulted formally, and provide a summary of how consultation was conducted and how concerns that were raised in consultations have been addressed. Attach the relevant communication in an appendix.

The primary consultation took place within the college and its departments. However, we have worked closely with the Gwenna Moss Centre and have received advice for the Offices of the University Secretary and Registrar. We have also consulted with the University Library.

c. Proposals that involve courses or other resources from colleges outside the sponsoring unit should include evidence of consultation and approval. Please give special consideration to pre- and co-requisite requires when including courses from other colleges.

Not Applicable

d. Provide evidence of consultation with the University Library to ensure that appropriate library resources are available.

We have met with Susan Murphy about her participation in the 1st year paraclinical Professional Foundations course. Required course materials remain the same as this is a rebalancing of the curriculum.

e. List other pertinent consultations and evidence of support, if applicable (e.g., professional associations, accreditation bodies, potential employers, etc.)

Much of the curriculum review came from surveys of veterinary employers and our graduates 2 years post-graduation. In addition we have had a number of focus group meetings with practicing veterinarians in western Canada to ensure that the material within the program is applicable and relevant to the profession currently.
5. Budget

The proposed rebalanced curriculum has a similar number of student contact hours per year. There is a slight increase in the number of clinical laboratory sessions versus didactic teaching. While the change from ½ class labs to ¼ class labs has the potential to increase teaching hours, this change has been coupled with the introduction of a “flipped classroom” format which should make the use of laboratory teaching time more efficient. Since the budget of the WCVM is currently funded largely through an Inter-provincial Agreement separate from the University as a whole this should not have an impact outside of the college

a. How many instructors will participate in teaching, advising and other activities related to core program delivery (not including distribution/ breadth requirements or electives)? (estimate the percentage time for each person).

The faculty and staff off the WCVM will continue to provide the majority of instruction

b. What courses or programs are being eliminated in order to provide time to teach the additional courses?

Some of the older courses have been consolidated. (See Appendix 8)

c. How are the teaching assignments of each unit and instructor affected by this proposal?

A proposal has been put forth that the college executive committee meet to review the teaching requirements for the VINT courses to assign the instruction duties appropriated.

d. Describe budget allocations and how the unit resources are reallocated to accommodate this proposal. (Unit administrative support, space issues, classroom availability, studio/practice rooms laboratory/clinical or other instructional space requirements).

The WCVM currently books its teaching space outside of the university systems. All space issues will be dealt with through our internal scheduling processes.

e. If this program is to be offered in a distributed context, please describe the costs associated with this approach of delivery and how these costs will be covered.

Not applicable

f. If this is an interdisciplinary program, please indicate whether there is a pool of resources available from other colleges involved in the program.

Not applicable

g. What scholarships will students be able to apply for, and how many? What other provisions are being provided for student financial aid and to promote accessibility of the program?

The current scholarships at WCVM will be unchanged

h. What is the program tuition? Will the program utilize a special tuition model or standard tuition categories? (The approval authority for tuition is the Board of Governors).

The tuition model for WCVM will be unchanged
i. What are the estimated costs of program delivery, based on the total time commitment estimates provided? (Use TABBS information, as provided by the College/School financial officer)
The estimated cost should remain relatively unchanged.

j. What is the enrolment target for the program? How many years to reach this target? What is the minimum enrolment, below which the program ceases to be feasible? What is the maximum enrolment, given the limitations of the resources allocated to the program?
The enrolment target is currently between 78-85 students with the potential to increase. The current maximum enrolment is 88 students.

k. What are the total expected revenues at the target enrolment level, separated into core program delivery and distribution/breadth requirements or electives? What portion of this expected revenue can be thought of as incremental (or new) revenue?
This will remain unchanged

l. At what enrolment number will this program be independently sustainable? If this enrolment number is higher than the enrolment target, where will the resources come from to sustain the program, and what commitments define the supply of those resources?
This will remain unchanged

m. Proponents are required to clearly explain the total incremental costs of the program. This is to be expressed as: (i) total cost of resources needed to deliver the program: (ii) existing resources (including in-kind and tagged as such) applied against the total cost: and (iii) a listing of those resource costs that will require additional funding (including new in-kind support).
The anticipated cost will essentially be unchanged and will be an internal college matter.

n. List all new funding sources and amounts (including in-kind) and the anticipated contribution of each to offsetting increment program costs. Please identify if any indicated funding is contingent on subsequent approval by a funding authority and/or future conditions. Also indicate under what conditions the program is expected to be cost neutral. The proponents should also indicated any anticipated surpluses/deficits associated with the new program
There are no new sources of funding.

**College Statement**
Please provide here or attach to the online portal, a statement from the College which contains the following:

- **Recommendation from the College regarding the program**
The faculty council of WCVM voted to approve the new program on November 14th, 2019.

- **Description of the College process used to arrive at that recommendation**
New course proposals were developed with the appropriate faculty in many cases with the assistance of the Gwenna Moss Centre. The new courses were approved by the
Year Teachers Committees before being taken to the College Curriculum Committee and the Faculty Committee

- **Summary of issues that the College discussed and how they were resolved**
  The primary issues discussed with the faculty focused around a faculties natural inertia to change, the perception of reduced focus on preclinical science and increased focus on clinical teaching, the increased focus on Para-clinical skills and the reorganization of clinical skills into their own course. In essence, the response to all of these changes is that they are being made in response to our accreditation needs and based on our review of outcomes assessments. It is a requirement of accreditation to review the curriculum every 7 years; a review without action is worthless. The review of our program outcomes have consistently identified that our graduates and employers would like to see more emphasis on clinical skills and in order to directly examine clinical skills through OSCEs it is necessary to develop specific courses. Furthermore the CBVE framework places great emphasis on the assessment of clinical and para-clinical skills.

**Related Documentation**
At the online portal, attach any related documentation which is relevant to this proposal to the online portal, such as:
- Excerpts from the College Plan and Planning Parameters (Appendix 2 – goal 3)
- SPR recommendations
- Relevant sections of the College plan
- Accreditation review recommendations (Appendix 4)
- Letters of support
- Memos of consultation

It is particularly important for Council committees to know if a curriculum changes are being made in response to College Plans and Planning Parameters, review recommendations or accreditation recommendations.

**Consultation Forms** At the online portal, attach the following forms, as required

Required for all submissions:
- Consultation with the Registrar form
  Meeting set for Monday 18th Nov
- Complete Catalogue entry, if proposing a new program, or excerpt of existing of existing program with proposed changes marked in red
Proposed:

**Doctor of Veterinary Medicine (D.V.M.) (162 178 credit units)**

“The Western College of Veterinary Medicine’s (WCVM) Doctor of Veterinary Medicine (DVM) degree is a 4 year program. The first 3 years of the program provide pre-clinical instruction consisting of lectures, seminars and laboratory sessions. The final year is a clinical year based almost entirely working alongside the clinical staff in our Veterinary Medical Centre. For further information on the WCVM admission and program requirements please see the information below and the WCVM website.”

All D.V.M. students will be required to successfully complete eight Demonstrated Entrustable Professional Activities (DEPA), as follows:

- Anesthesia
- Clinical Pathology
- Anatomic Pathology
- Surgery (LA or SA) and/or Spay
- History (LA or SA)
- Physical Examination (LA or SA)
- Diagnostic Approach (LA or SA)
- Discharge Notes (LA or SA)

**Year 1**

**41 43 credit units**

- **VBMS 202.4** Veterinary Biochemistry
- **VBMS 208.1** Biomedical Rounds
- **VBMS 220.8** Veterinary Anatomy
- **VBMS 250.9** Veterinary Anatomy
- **VBMS 222.3** Veterinary Neuroscience
- **VBMS 260.13** Form and Function
- **VBMS 223.2** Veterinary Embryology
- **VBMS 224.9** Veterinary Physiology
- **VBMS 231.4** Veterinary Microscopic Anatomy
Year 2

41 48 credit units

- VINT 205.0 WCVM Year 1 Clinical Competency Assessment
- VINT 202.5 Veterinary Clinical Skills I
- VINT 203.1 Professional Foundations I
- VINT 210.1 Veterinary Career Seminars
- VINT 211.1 Veterinary Business I
- VLAC 211.3 Animal Management and Production I
- VLAC 215.2 Animal Welfare and Behaviour
- VSAC 205.1 Basic Surgical Skills
- VTMC 230.2 Veterinary Immunology
- VTMC 238.2 Disease Ecology and Epidemiology
- VTPA 252.3 Veterinary General Pathology

- VBMS 305.2 Veterinary Pain and Analgesia
- VBMS 333.6 Veterinary Pharmacology
- VBMS 304.3 Veterinary Anesthesia and Analgesia
- VBMS 306.5 Veterinary Pharmacology
- VBMS 334.3 Veterinary Toxicology
- VINT 302.5 Veterinary Clinical Skills II
- VINT 303.1 Professional Foundations II
- VINT 312.1 Veterinary Business II
- VINT 305.0 WCVM Year 2 Clinical Competency Assessment
- VLAC 310.3 Animal Management and Production II
- VLAC 315.6 Animal Production
- VLAC 320.2 Evidence based Medicine
- VLAC 325.1 Veterinary Public Health
- VSAC 356.1 Veterinary Anesthesiology
- VSAC 357.1 Surgical Principles
- VSAC 310.2 Surgical Principles
- VSAC 362.2 Veterinary Medical Imaging
- VSAC 315.1 Introduction to Medical Imaging
- VSAC 376.3 Clinical Examination and Diagnosis
- VSAC 320.3 Veterinary Diagnostic Medicine
- VTMC 334.2 Veterinary Virology
• VTMC 336.2 Veterinary Parasitology
• VTMC 347.3 Veterinary Bacteriology and Mycology
• VTPA 346.3 Veterinary Clinical Pathology
• VTPA 352.3 Veterinary General Pathology
• VTPA 353.5 Veterinary Systemic Pathology

Year 3

41 55 credit units

• VBMS 436.3 Veterinary Clinical Pharmacology
• VINT 402.5 Veterinary Clinical Skills III
• VINT 412.1 Veterinary Business III
• VINT 415.1 Communications
• VINT 405.0 WCVM Year 3 Clinical Competency Assessment
• VINT 411.2 Business Topics in Professional Practice
• VLAC 462.5 Equine Medicine and Surgery
• VLAC 415.5 Food Animal Production Medicine
• VLAC 460.5 Equine Medicine and Surgery
• VLAC 473.3 Food Animal Reproductive Management
• VLAC 474.2 Companion Animal Theriogenology
• VLAC 482.5 Food Animal Production Medicine
• VSAC 410.1 Surgical Exercises
• VSAC 415.2 Veterinary Diagnostic Imaging
• VSAC 458.1 Veterinary Dentistry
• VSAC 460.1 Exotic Animal Medicine and Surgery
• VSAC 462.1 Veterinary Ophthalmology
• VSAC 463.5 Small Animal Medicine and Surgery I
• VSAC 465.4 Small Animal Medicine and Surgery 2
• VSAC 450.10 Small Animal Medicine and Surgery

Electives

Choose 14 credit units from the following:

• VBMS 422.1 Current Issues in Regulatory Veterinary Pharmacology
• VBMS 431.1 Integrative Morphological Sciences
• VBMS 435.1 Drugs and the Performance Horse
- VBMS 437.2 Pain and Analgesia in Non-Mammalian Animals
- VINT 439.2 Selected Topics
- VINT 400.2 Research Selected Topics
- VINT 438.1 Research Projects
- VINT 440.2 Mindful Veterinary Practice
- VINT 442.2 Communications Elective
- VLAC 429.1 Zoonotic Diseases
- VLAC 433.2 Equine Medicine
- VLAC 437.2 Advanced Bovine Ruminant Medicine
- VLAC 439.2 Swine Production Medicine
- VLAC 441.2 Clinical Procedures in Bovine Practice
- VLAC 443.2 Animal Welfare
- VLAC 445.2 Advanced Equine Reproduction
- VLAC 447.2 Sustainable Development Social Political Cultural Economic and Environmental Pressures on Ecosystems
- VLAC 449.2
- VLAC 451.1
- VLAC 453.2 Dairy Industry
- VLAC 455.1 Introduction to Epidemiology for Regulatory Medicine and Public Health
- VLAC 491.1 Beef Industry Elective
- VLAC 492.2 Equine Nutrition
- VLAC 493.2 Ruminant Nutrition
- VLAC 494.2 Equine Surgery
- VLAC 495.1 Equine Health Management and Clinical Techniques
- VSAC 435.2
- VSAC 437.2 Small Animal Oncology
- VSAC 439.2 Small Animal Medical Imaging
- VSAC 441.1 Advanced Small Animal Anesthesiology
- VSAC 443.1 Small Animal Behavior
- VSAC 445.2 Small Animal Clinical Nutrition
- VSAC 449.2 Small Animal Clinical Orthopedics
- VSAC 454.1 Companion Animal Ophthalmology
- VSAC 455.1 Equine Ophthalmology
- VSAC 456.1 Large Animal Medical Imaging
- VSAC 457.1 Small Animal Dermatology
- VSAC 475.1 Advanced Large Animal Anesthesiology
- VSAC 477.1 Topics in Feline Internal Medicine Elective
- VSAC 478.2 Small Animal Clinical Behaviour
- VTMC 441.1
- VTPA 420.1 Introduction to Fish Health
- VTPA 421.1 Veterinary Cytology
- VTPA 431.2 Poultry Disease Management
- **VTPA 434.1** Introduction to Wildlife Veterinary Medicine
- **VTPA 447.2** Introduction to Diagnostic Pathology

**Year 4**

**32 credit units**

- **VINT 580.32** Applied Veterinary Medicine

**Required for all new courses:**
- New Course Proposal forms Appendix 9-11
- Calendar-draft list of new and revised courses Appendix 8

**Required if resources needed:** - not required
- Information Technology Requirements form
- Library Requirements form
- Physical Resource Requirements form
- Budget Consultation form
To whom it may concern,

**Re: proposal for WCVM Curriculum renewal**

The Western College of Veterinary Medicine is accredited through the American Veterinary Medical Association’s Council on Education. An annual self-reporting process and a detailed site visit takes place every 7 years to ensure compliance with the accreditation standards.

Standard 9 of the Accreditation requirements specifically states that “The curriculum as a whole must be reviewed at least every seven (7) years.” In 2015, the faculty had a comprehensive review of the entire DVM curriculum including data gathered over the course of several years of outcomes assessment including North American Veterinary Licensing Examination (NAVLE) scores, student surveys, post-graduate surveys, employer surveys, and course evaluations.

This process identified some major strengths of the program such as anesthesia and diagnostic pathology areas and performance in the NAVLE. It also identified areas where we can improve performance such as medical imaging, nutrition and veterinary business. Furthermore there was a sense that we should attempt to develop a greater focus on clinical skills.

In July of 2015, the Association of American Veterinary Medical Colleges (AAVMC) created a working group charged with developing a modern competency framework for veterinary education and clinical assessment. It is being anticipated by many colleges that these new competencies may become an accreditation standard.

Following the review and release of the new competency based framework from the AAVMC working group, the college started working towards aligning with the new recommendations. Over the past 4 years we have worked closely with the Gwenna Moss Centre, faculty and students to review areas of the program and develop strategies to maintain the success of our program but to address areas of perceived weakness. Fortunately this process coincided with the development of the College Strategic Plan (Goal 3) and we were therefore able to ensure that the 2 process were integrated.
From the college plan:

1. Ensure our professional program prepares graduates for engagement in the veterinary profession of the future.
2. Embrace and celebrate diversity and indigenization.
3. Champion student engagement in the community.
4. Enhance clinical experience for DVM students, interns and residents.
5. Promote a culture of excellence in teaching and learning.

Overall, this is a process of curriculum renewal with a rebalancing of curricula content. Given that the new program will be rolled out over a 3 year period we have focused the majority of our efforts to date on the 1st year program for introduction in the 20/21 academic year. With plans to review content in the 2nd and 3rd year during the next 2 summers.

The first year teachers had several days of retreat with leadership from Gwenna Moss to create a guiding principles document for the 1st year of the curriculum. Course content was reviewed and assessed for the best way to deliver the content to students while meeting the guiding principles as established. These proposals accepted by the WCVM in October of 2019. This has led to a restructuring of courses through years 1 to 3. During this process it became apparent that the allocation of credit units was flawed; the university principle that every 12-13 of instructional activity where students are learning should be counted as a credit meant that we should be allocating credits to our clinical laboratory sessions. The number of credit units has therefore increased while the actual contact hours remain similar.

We intend to use the summers of 2020 and 2021 to refine the detailed course content in years 2 and 3 of the DVM program as well as create similar guiding principle documents for each year of the DVM program.

The goal of the program is to graduate general entry-level veterinarians capable of self-directed learning to enhance their knowledge and skills in whatever field of veterinary medicine they choose. The restructuring of the DVM program will allow for an emphasis in para professional skills, prioritize knowledge and practical application of knowledge, and allow for continuity of material over the program.

The WCVM is in a unique position on campus. We are a relatively self-contained college which offers only one integrated undergraduate degree program. Almost all our teaching is done by our own faculty and staff with some sessional lecturers. None of our courses credits are transferable to any other programs and we maintain the responsibility for all our teaching spaces. Furthermore the finances of WCVM are also relatively self-contained. Consequently changes to
our DVM program have almost no impact on any other area of campus. I hope that you will look favourably on the efforts of our faculty to fulfill the mandate of the college.

Yours faithfully,

Chris Clark, Vet MB, PhD
Associate Dean (Academic) and
Chair, Curriculum Committee
New Course Proposal Form

This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue
   
   2.1 Label & Number of course: VINT 203.1
   
   2.2 Title of course: Professional Foundations I
   
   2.3 Total Hours: Lecture 24 Seminar Lab Tutorial Other
   
   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other – WCVM has an irregular timetable
   
   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2
   
   2.6 Prerequisite: Enrollment in year 1 of the DVM program
   
   2.7 Calendar description:

   This course is designed to supplement the clinical medical training in the rest of the program by encouraging students to develop a number of “para-professional skills” that are vital to success as a veterinarian.

   2.8 Any additional notes

3. Rationale for introducing this course.

   A successful veterinarian has to be capable of more than basic clinical skills. There are a number of “para-professional skills” that are vital for success. In the past 2 years the American Association of Veterinary Medical Colleges has developed a framework for Competency based Veterinary Education. Competencies 5-9 directly address these para-professional skills. This course is designed to introduce the concepts of para-professional skills and to ensure that the students are meeting the basic competencies at the novice and intermediate level.

4. Learning Objectives for this course.

   5.1 Novice: Students will communicate in a primarily unidirectional manner with limited active listening. Has difficulty conveying information clearly and professionally.

   Intermediate: Students will communicate bidirectionally and professionally. Is not always clear and concise.

   5.2 Novice: Students will adhere to own communication style. Often makes assumptions rather than eliciting perspectives from others. Often uses inappropriate terminology.
Intermediate: Students will use appropriate terminology most of the time and sometimes elicits others’ perspectives. Attempts to adapt communication style to meet the needs of others but sometimes forgets to check for understanding.

6.1 Novice: Students will demonstrate limited understanding of team member roles and may disregard contributions from those perceived to have less authority. Tends to overlook team
Intermediate: Students will functions as a passive member of the team. Demonstrates respect for input from other

6.2 Novice; Students will function as a passive observer of team activities and behaviors.
Intermediate: students will assume a prescribed role in team and depends on others for direction

6.3 Novice: Students will focus on own agenda without engaging or following up with others.
Intermediate: Students will engage others to maintain relationships but follow-through is inconsistent

6.4 Novice: Students will acknowledges the existence of diversity in all its dimensions. Fails to recognize own microaggressions or insensitive actions or demonstrate inclusivity.
Intermediate: Students will acknowledge the importance of diversity and inclusivity, and sometimes incorporates in collaborations and communications. Does not actively seek opinions but considers them if offered

7.1 Novice: Students will act outside applicable code of conduct occasionally. Approach to professional decision-making is superficial. Unable to articulate an accepted ethical position.
Intermediate: students will recognize ethical situations and inconsistently applies an ethical decision-making framework to resolve dilemmas.

7.2 Novice: students will need assistance organizing and prioritizing tasks and responsibilities.
Intermediate: students will function well in a slow-paced setting. Organizes and prioritizes activities but lacks efficiency.

7.3 Novice: Students will demonstrate difficulty asking for or accepting feedback and fails to demonstrate accurate self-assessment.
Intermediate: Students will demonstrate difficulty applying reflective practice for self-improvement. Accepts constructive feedback but does not always modify behavior.

7.5 Novice: Students will neglects self-care and personal wellbeing occasionally. Fails to establish boundaries to protect self.
Intermediate: students will recognize the importance of self-care and inconsistently practices habits that promote personal wellbeing.

8.2 Novice: Students will demonstrate difficulty explaining regulatory standards for veterinary practice. May suggest actions that contravene legal and regulatory requirements.
Intermediate: Students will explain some regulatory standards for veterinary practice. Consults regulatory standards when prompted.

8.3 Novice: Students will comply with posted protocols inconsistently and has difficulty explaining their rationale.
Intermediate: Students will comply with posted protocols and explains rationale

9.1 Novice: Students will describe the importance of gathering and evaluating data. Demonstrates difficulty identifying resources and assessing credibility.
Intermediate: Students will retrieve credible information. Analyses are not consistently accurate.

9.2 Novice: Students will rely on anecdote rather than evidence-based data to solve problems.
Intermediate: Students will formulate relevant questions but needs assistance developing comprehensive solutions.
9.3 Novice: Students will provide anecdotal information without verification from evidence-based sources. Educational resources are poorly organized and lack a clear message.
Intermediate: Students will create educational resources that are accurate, but do not meet the needs of the stakeholders

5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? NO
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? YES

6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? NO
   Course(s) for which this course will be a prerequisite? Required for registration in year 2 of the DVM program
   Is this course to be required by your majors, or by majors in another program? YES, DVM

7. Course outline.

<table>
<thead>
<tr>
<th>Lecture #</th>
<th>Title/Content</th>
<th>CBVE outcomes</th>
<th>Clark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Intro</td>
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<td>Self-reflection Anatomy group</td>
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<td>6.</td>
<td>Group process 2</td>
<td>6.1-6.3</td>
<td>Self-reflection biomedical rounds</td>
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<td>9.1-9.3</td>
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<td>Scholarship 3</td>
<td>9.1-9.3</td>
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<td>7.1</td>
<td>Clark</td>
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<td>Ethics 3</td>
<td>7.1</td>
<td>Clark</td>
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<td>13.</td>
<td>Professionalism</td>
<td>7.1, 8.2</td>
<td>Clark</td>
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<td>14.</td>
<td>Professional accountability</td>
<td>7.1, 8.2</td>
<td>Clark</td>
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<td>15.</td>
<td>Personality types</td>
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<td>16.</td>
<td>Animal care 1</td>
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<td>Koshuba On-line animal care course</td>
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<td>17.</td>
<td>Animal care 2</td>
<td></td>
<td>Koshuba</td>
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<td>18.</td>
<td>Dealing with stress</td>
<td>7.5</td>
<td>1st exam self assessment Surgical exam</td>
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<td>19.</td>
<td>Cultural competency</td>
<td>6.4</td>
<td>On-line indigenous awareness program</td>
</tr>
</tbody>
</table>
8. **Enrolment.**
   - Expected enrollment: **83**
   - From which colleges? **WCVM**

9. **Student evaluation.**
   - Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

   **This is a class that will be graded pass/fail based on completion of the student self-assessment assignments that are outlined in Section 5**

10. **Required text:** **NONE**
    - Include a bibliography for the course.

11. **Resources.**
    - Proposed instructor: **Dr. Chris Clark**
    - How does the department plan to handle the additional teaching or administrative workload? **N/a**
    - Are sufficient library or other research resources available for this course? **YES**
    - Are any additional resources required (library, audio-visual, technology, etc.)? **NO**

12. **Date of Implementation:**
    - To be offered: **annually**  biennially  other
(version: November, 2015)

To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject VINT
Course Number 203.1
Term from which this course will become effective: 202009
Month: January May July September Year: 2020

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? WCVM – Dean’s office
If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval
What is the academic credit unit weight of this course? 1 credit unit
Is this course supposed to attract tuition charges? If so, how much? (use tuition category)
Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO
Do you allow this course to be repeated for credit? Yes No
How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title: Professional Foundations I
Course Long Title (maximum 100 characters)
Course Short Title (maximum 30 characters) Professional Foundations I
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘ “ ; : $ & @ ! ? / - = % # ( ) ]
Course Description
Course Description (please limit to 150 words or less)

This course is designed to supplement the clinical medical training in the rest of the program by encouraging students to develop a number of para-professional skills that are vital to success as a veterinarian.

Registration Information
Formerly: NA
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in the DVM Program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.
Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) VINT 200.1

Catalogue Term Hour Listing (e.g. 3L-2P) 24S

Additional Notes
VLAC 215.2 - Animal Welfare and Behaviour

1. Department: Large Animal Clinical Sciences  
   College: Western College of Veterinary Medicine

2. Information required for the calendar:  
   2.1 Label & Number of course: VLAC 215.2  
   2.2 Title of course: Animal Welfare and Behaviour  
   2.3 Total Hours: 
      Lectures 24  
      Seminars  
      Labs 26  
      Tutorials 0  
      Other 0  
   2.4 Prerequisite: Admitted to Year 1 of the Doctor of Veterinary Medicine program

2.5 Description: Provides a foundation of knowledge in the welfare, behaviour, management and nutrition of the common animal species including companion animals, emphasizing the role of the veterinarian. Concepts of animal welfare, herd management, health and production interactions, and the common management practices of various animal industries will be described. Laboratory exercises will emphasize hands-on experience in animal handling and restraint, while seminars will allow time for small-groups discussions, students’ presentations about real case scenarios.

3. Rationale for this course: Veterinarians are expected to be leaders advocating for animal welfare through quality-of-life assessment, but they must also be able to critically evaluate the information and weigh any ethical dilemmas over personal values and then use appropriate communications skills to explain or guide the client through the decision making process. Basic understanding of behaviour, handling and restraint of animals are cornerstones of a veterinarian’s knowledge base. Veterinarians require knowledge of normal behaviours in order to interpret abnormal behaviours, particularly as it pertains to animal welfare and because of its wide application to other disciplines. This course provides the framework upon which the veterinary student’s future studies and practice skills are based.

4. Learning objectives:  
   1) Articulate principles of animal welfare and describe methods of assessing welfare and behaviour in multiple domestic species and settings.  
   2) Discuss the ethical, legal, sociological and economic implications of the concept of animal welfare, and how is connected to vet practice.  
   3) Understand the components of domestic animal behaviour linked to animal production and veterinary medicine.  
   4) Identify the normal social, feeding, sexual and maternal behaviours of domestic animals.  
   5) Perform safe, appropriate animal handling and restraint in common domestic species.  
   Perform a complete distance exam on a normal animal for common domestic species.
5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? **No**
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? **Yes**

6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? **VLAC 211.3**
   Course(s) for which this course will be a prerequisite? **Required for registration in year 2 of the DVM program**
   Is this course to be required by your majors, or by majors in another program? **Yes, DVM**

7. Course outline.

   **Lectures (24 1-hour lectures)**

   **Lecture 01 – Course introduction and Animal Welfare I**
   • Course overview
   • Presenting assignments I and II
   • History of animal welfare
   • From the Five freedoms to a “Life worth living”
   **Lecture 02 – Animal Welfare II**
   • Definitions of animal welfare
   • Approaches to address animal welfare
   • Personal views on animal welfare
   • Types of citizens (contractarians, utilitarians, …)
   • Communication with consumers
   **Lecture 03 – Animal Welfare III**
   • Producer’s view
   • Productivity vs Animal welfare
   • Veterinary's role
   • CVMA position statements
   • Legislation on animal welfare
   • Link between animal health and welfare
   **Lecture 04 – Animal ethics**
   • Systematic thinking about ethical issues related to human-animal relationship
   • Speciesism and animal rights
   • Animal ethics in zoos, pets, farm animals, …
   **Lecture 05 – Multiagency approaches to animal welfare**
   • Mandatory reporting
   • What does The Act mean to you
   • How to ID cruelty
   • Mental and Physiological health
   • Multiagency navigation
   **Lecture 06 – Contemporary issues in Animal welfare: the poultry industry**
   • Outline salient topics in poultry handling and management.
   **Lecture 07 – Human-Animal relationship**
   • Human-animal bond
   • One Welfare
   **Lecture 08 – Euthanasia**
   • Euthanasia to protect well-being
   • Farm animals vs pets
   • The veterinary’s role, personal burden and professional health
   • Values of life
   **Lecture 09 – Animal behaviour I**
   • Ethology
• Tinbergen’s four questions
• Regulatory mechanisms

Lecture 10 – Animal behaviour II
• Ontogeny
• Function of behaviours
• Evolution of behaviours

Lecture 11 – Animal Behaviour III
• Mental state
• Animal temperament
• Coping style
• Precision livestock farming (location, activity)

Lecture 12 – Animal cognition and learning
• Adaptation and Learning
• Classical and operant conditioning
• Social learning
• Animal cognition
• Motivational state

Lecture 13 – Early-life management
• Early behaviour development
• Socializing & play behaviour
• Epigenetics

Lecture 14 – Animal training
• Tools and methodologies for behaviour modification
• Training routines

Lecture 15 – Stereotypies
• Stereotypy development
• The role of motivation
• The role of dopamine
• Types of stereotypies
• Solutions

Lecture 16 – Animal Handling
• Risk factors
• Animals defensive response to handling
• Managing the flight zone
• Handling tools and facilities
• Low stress handling

Lecture 17 – Animal Handling II
• Distance exam
• Recognize animal signs
• Distraction techniques

Lecture 18 – Animal Handling III
• Normal and abnormal in multiple species

Lecture 19 – Management of painful procedures
• Acute and chronic pain
• Stress, discomfort, suffering
• Response to pain
• Common causes of pain
• Assessment of pain

Lecture 20 – Feeding behaviour
• Optimality
• Internal and external modulators
• Tools to measure it
• Food preferences and aversions

Lecture 21 – Social behaviour
• Socialization, social learning, bonding, imprinting
• Dominance
• Social features
• Cooperative behaviour

Lecture 22 – Aggressive behaviour
• Agonistic behaviours
• Types of aggressive behaviours
• Differences between species
• Consequences
• Controlling aggression

Lecture 23 – Sexual behaviour
• Males: appetitive and consummatory behaviours
• Males: Refractory period
• Females: appetitive and consummatory behaviours
• Estrus detection
• Common issues

Lecture 24 – Maternal behaviour
• Definitions
• Onset and impact on mother and offspring
• Precocial vs altricial species
• Facility design to improve productivity

Labs (13 2-hous labs)

LAB 01 – Poultry: Gain experience handling live birds
LAB 02 – Small animals: Discuss and practice proper restraint techniques in cats and dogs so that they can be handled safely for their sake and for the sake of people working with them.
LAB 03 – Dairy barn tour: Outline the structure and function of the Rayner dairy barn facility and explain how this relates to the management of the animals.
LAB 04 – Alternative livestock tour: Discuss the specialization of handling facilities for individual species, with a focus on bison, elk, and deer.
LAB 05 – Swine: Catch and restrain swine with the snare. Facilitate movement of swine utilizing flight zone principles, boards, and rattles. Perform girth measure and calculate individual weight and group loading density.
LAB 06 – Equine I: Develop familiarity with horse behavior and handling. Catch and properly halter a horse, lead a horse, safely work around a horse (identify behavior cues from the horse), pick up all 4 feet, and demonstrate a shoulder twitch.
LAB 07 – Equine II: Identify (palpate or point out) basic topographical anatomy. Demonstrate the basics of a lameness exam, including application of hoof testers, trotting in hand, and flexion tests. Discuss behavior and different types of horses.
LAB 08 – Equine III: Auscultate the heart and thorax/trachea, palpate pulses, and perform body condition scoring. Continue to emphasize proper equine handling, safety around horses and lay equine knowledge, such as colours and coat patterns.
LAB 09 – Cattle I: How to operate the headgate to restrain cattle safely. Put on and take off halter properly. Perform knot-ties for restraint and cast a cow.
LAB 10 – Cattle II: Use the chute to restrain beef cattle. Immobilize the head with the halter. Facilitate movement of cattle through pens, alley, and chute system. Collect blood samples from jugular and tail veins.
LAB 11 – Small ruminants: Gain experience handling small ruminants (sheep, goats and/or calves)
LAB 12 – Exotics: Discuss information provided to clients and available feeds and housing for exotic companion mammals, parrots, finches, canaries, and reptiles.
LAB 13 – Lab animals: Discuss characteristics, housing, husbandry, and research considerations of laboratory rodents. Describe and practice appropriate handling and restraint of rats and mice.

8. Enrolment.
   Expected enrollment: 83
   From which colleges? WCVM

9. Grading scheme:

<p>| | |</p>
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<tr>
<td>Labs</td>
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<td>Midterm Exam (Welfare and Ethics)</td>
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<tr>
<td>Final Exam (Animal Behaviour)</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
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10. Required text: NONE
    Include a bibliography for the course.

11. Resources.
    Proposed instructor: Dr. Diego Moya
    How does the department plan to handle the additional teaching or administrative workload? N/a
    Are sufficient library or other research resources available for this course? YES
    Are any additional resources required (library, audio-visual, technology, etc.)? NO

12. Date of Implementation:
    To be offered: annually  biennially  other
SESD: Course Creation Information Form

(version: November, 2015)

To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject VLAC
Course Number 215.2
Term from which this course will become effective: 202009
Month: January May July September Year: 2020

Information Block
What is the academic college or school to which this course belongs? WCVM

What is the department or school that has jurisdiction over this course? Large Animal Clinical Sciences

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 2 credit units

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
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1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   - FNAR Fine Arts
   - HUM Humanities
   - SCIE Science
   - SOCS Social Science
   - ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title Animal Welfare and Behaviour
Course Long Title (maximum 100 characters)
Course Short Title (maximum 30 characters) Animal Welfare and Behaviour
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘ “ ; : $ & @ ! ? / + - = % # ( ) ]

(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘ “ ; : $ & @ ! ? / + - = % # ( ) ]
Course Description
Course Description (please limit to 150 words or less)

Provides a foundation of knowledge in the welfare, behaviour, management and nutrition of the common animal species including companion animals, emphasizing the role of the veterinarian. Concepts of animal welfare, herd management, health and production interactions, and the common management practices of various animal industries will be described. Laboratory exercises will emphasize hands-on experience in animal handling and restraint, while seminars will allow time for small-groups discussions, students' presentations about real case scenarios.

Registration Information
Formerly: VLAC 211.3
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in the 1st year of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) 215.2
Catalogue Term Hour Listing (e.g. 3L-2P) 24L-26P

Additional Notes
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue
   2.1 Label & Number of course: VTPA 252.3
   2.2 Title of course: Veterinary General Pathology
   2.3 Total Hours: 32 Lecture Seminar 16 Lab Tutorial Other
   2.4 Weekly Hours: Lecture Seminar Lab Tutorial
   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2
   2.6 Prerequisite: Enrollment in year 1 of the DVM program

3. Rationale for introducing this course.

   “Veterinarians are expected to have a much better working knowledge of pathology than physicians because they are required to do routine postmortem examination of animal tissues and must interpret the gross lesions of general pathology accurately” (R.G. Thomson). A thorough understanding of disease mechanisms is the foundation for a rational approach to diagnosis of disease and to evidence-based medicine (clinical care and therapy). General Pathology course is a foundational course that enables students to learn basic pathogenetic mechanisms of various disease processes and to correlate these processes to morphological changes and clinical symptoms of common diseases. This course is necessary for proper understanding and learning of the subsequent pathology (e.g. Systemic Pathology) and other courses in DVM curriculum. It also provides the framework for integration of new scientific advances into the practice of veterinary medicine in the future.

4. Learning Objectives for this course.

   1. The student will be able to:
      a. explain the principal mechanisms of common disease processes
      b. discuss the role of these processes in the context of specific clinical case material
   2. Given a gross pathological specimen (or photographic image), the student will be able to:
      a. differentiate between normal and abnormal tissue
      b. write a pathology (medical) examination record
      c. formulate morphological diagnoses for typical examples of the major disease processes
      d. discuss appropriate differential diagnoses
3. The student will be able to identify microscopically (from glass slide or photographic image) the tissue and cellular features of major disease processes discussed in class.

The student will be able to use and interpret the language of pathology correctly.

5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? NO
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? YES

6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? VTPA 352.3
   Course(s) for which this course will be a prerequisite? Registration in year 2 of the DVM program
   Is this course to be required by your majors, or by majors in another program? YES, DVM

7. Course outline.
   1. Introduction and descriptive terminology (lecture: 1h and labs: 2h)
   2. Cell and tissue injury (lectures: 6h and labs: 6h)
   3. Disturbances of growth and neoplasia (lectures: 6h and labs: 6h)
   4. Disturbances of circulation and hemostasis (lectures: 6h and labs: 6h)
   5. Inflammation, healing and repair (lectures: 8h and labs: 10h)
   6. Immunopathology (lectures: 3h and labs: 2h)
   7. Host, pathogen and environment (lectures: 2h)

   Lab: 2x30min per week for 16 weeks = 16h after 4:30 pathology seminar (voluntary participation)

8. Enrolment.
   Expected enrollment: 83
   From which colleges? WCVM

9. Student evaluation.
   Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

<table>
<thead>
<tr>
<th></th>
<th>Midterm</th>
<th>Laboratory</th>
<th>Final exam</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell Injury</td>
<td>7.5%</td>
<td></td>
<td>7.5%</td>
<td></td>
</tr>
<tr>
<td>Disorders of Growth &amp; Neoplasia</td>
<td>7.5%</td>
<td></td>
<td>7.5%</td>
<td></td>
</tr>
<tr>
<td>Hemodynamic Disorders</td>
<td></td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Inflammation and Repair</td>
<td></td>
<td>7%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Immunopathology</td>
<td>3%</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehensive (all sections)*</td>
<td>40%</td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labs**</td>
<td></td>
<td>30%</td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>Final grade</td>
<td>15%</td>
<td>30%</td>
<td>55%</td>
<td>100%</td>
</tr>
</tbody>
</table>

* Comprehensive Part of the Final

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Cell Injury</td>
<td>9%</td>
</tr>
<tr>
<td>Disorders of Growth &amp; Neoplasia</td>
<td>9%</td>
</tr>
<tr>
<td>Hemodynamic Disorders</td>
<td>9%</td>
</tr>
<tr>
<td>Inflammation and Repair</td>
<td>10%</td>
</tr>
<tr>
<td>Immunopathology</td>
<td>3%</td>
</tr>
<tr>
<td>**</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40%</td>
</tr>
</tbody>
</table>
10. **Required text:** NONE
    Include a bibliography for the course.

11. **Resources.**
    Proposed instructor: Dr. Bruce Wobeser
    How does the department plan to handle the additional teaching or administrative workload? N/A
    Are sufficient library or other research resources available for this course? Yes
    Are any additional resources required (library, audio-visual, technology, etc.)? NO

12. **Date of Implementation:**
    To be offered: annually biennially other
SESD: Course Creation Information Form

(version: November, 2015)

To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject: VTPA
Course Number: 252.3
Term from which this course will become effective: 2021Q1
Month: January, May, July, September Year: 2021

Information Block
What is the academic college or school to which this course belongs? WCVM

What is the department or school that has jurisdiction over this course? VTPA

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 3 credit units

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail  
*(Grade options for instructor: Pass, Fail, In Progress)*

S – Special  
*(Grade options for instructor: NA – Grade Not Applicable) If other, please specify*

**Schedule Types**

Schedule Types that can be used for sections that fall under this course: 
(Indicate – highlight - all possible choices)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CL</td>
<td>Clinical</td>
<td>PRB</td>
<td>Problem Session</td>
</tr>
<tr>
<td>COO</td>
<td>Coop Class</td>
<td>RDG</td>
<td>Reading Class</td>
</tr>
<tr>
<td>FLD</td>
<td>Field Trip</td>
<td>RES</td>
<td>Research</td>
</tr>
<tr>
<td>ICR</td>
<td>Internet Chat Relay</td>
<td>ROX</td>
<td>Roster (Dent Only)</td>
</tr>
<tr>
<td>IHP</td>
<td>Internet Help</td>
<td>SEM</td>
<td>Seminar</td>
</tr>
<tr>
<td>IN1</td>
<td>Internship - Education</td>
<td>SSI</td>
<td>Supervised Self Instruction</td>
</tr>
<tr>
<td>IN2</td>
<td>Internship - CMPT &amp; EPIP</td>
<td>STU</td>
<td>Studio</td>
</tr>
<tr>
<td>IN3</td>
<td>Internship - General</td>
<td>SUP</td>
<td>Teacher Supervision</td>
</tr>
<tr>
<td>IND</td>
<td>Independent Studies</td>
<td>TEL</td>
<td>Televised Class</td>
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<tr>
<td>LAB</td>
<td>Laboratory</td>
<td>TUT</td>
<td>Tutorial</td>
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<td>LC</td>
<td>Lecture/Clinical (Dent Only)</td>
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<td>Web Based Class</td>
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<td>Lecture</td>
<td>XCH</td>
<td>Exchange Program</td>
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<td>Lecture/Laboratory (Dent Only)</td>
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<td>Multimode</td>
<td>XHS</td>
<td>High School Class</td>
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<td>PCL</td>
<td>Pre-Clinical (Dent Only)</td>
<td>XNA</td>
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<tr>
<td>PRA</td>
<td>Practicum</td>
<td>XNC</td>
<td>No Academic Credit</td>
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</tbody>
</table>

**Detailed Information**

What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.  
NOAC No Academic Credit

2. **For the College of Arts and Science only:** To which program type does this course belong?  
FNAR Fine Arts  
HUM Humanities  
SCIE Science  
SOCS Social Science  
ARNP No Program Type (Arts and Science)

**Course Syllabus**

Long Title: **Veterinary General Pathology**  
Course Long Title (maximum 100 characters)  
Course Short Title (maximum 30 characters): **Veterinary General Pathology**  
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘ “ ; : $ & @ ! ? / + - = % # ( ) ]}
Course Description
Course Description (please limit to 150 words or less)

Basic pathogenic mechanisms that underlie disease processes are discussed. Functional derangements are correlated with structural alterations. The following topics are considered: cell and tissue injury, disturbances of circulation and hemostasis, inflammation, healing and repair, immunopathology, disturbances of growth and neoplasia.

Registration Information
Formerly: VTPA 352.3
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
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Exam Exempt
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http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) VTPA 252.3
Catalogue Term Hour Listing (e.g. 3L-2P) 32L – 16P

Additional Notes
Course Change Proposal Form

Course Change Proposal

Basic information about the course change

1. Department: Veterinary Biomedical Sciences

2. Course: VBMS 222

3. Information required for the Calendar:

Title of course: Veterinary Neuroscience

Total Hours:

<table>
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<tr>
<th></th>
<th>Lecture</th>
<th>(increase from 28)</th>
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<tbody>
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<td></td>
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<table>
<thead>
<tr>
<th></th>
<th>Seminar</th>
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<tr>
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<td></td>
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<table>
<thead>
<tr>
<th></th>
<th>Lab</th>
<th>(increase from 0)</th>
</tr>
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<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th></th>
<th>18</th>
<th>Tutorial (no change)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>Other</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Restrictions:

Calendar description:

4. Reason for change:
Correctly represents teaching hours since last curriculum revision:

1. 2 hr brain dissection lab was missed from course change during last curriculum revision

2. 2 hrs lect + 2 hrs lab was added (and same time removed from VBMS 231) to better align teaching of nervous system histology within the neuroscience course.

3. 1 hr lecture on nervous system development was added (and same time removed from VBMS 223) to better align development content within neuroscience course.

__________________________  ______________________________
Department Head Signature  Faculty Signature

__________________________  ______________________________
Date  Date

(Please submit to WCVM Student Services, Rm 4117, for final approval)
VBMS 250.9 - Veterinary Anatomy

1. Department: Veterinary Biomedical Sciences
   College: Western College of Veterinary Medicine

2. Information required for the Calendar:
   2.1 Label & Number of course: VBMS 250.9
   2.2 Title of course: Veterinary Anatomy
   2.3 Total Hours: Lecture: 77  
                   Seminar: 0  
                   Lab: 140  
                   Tutorial: 0  
                   Other: 0
   2.4 Restrictions: Admitted to Year 1 of the Doctor of Veterinary Medicine program.
   2.5 Formerly: VBMS 220.8

   2.6 Calendar description: A general introduction to the gross and microscopic anatomy of the common large and small domestic animal species with emphasis on areas of particular functional and clinical significance or biological importance.

3. Rationale for this course: Consistent with our collectively developed principles for Year 1 DVM curriculum revision, our intent is to deliver an integrated and coordinated learning experience that aligns essential content with Year 1 outcomes and competencies. Veterinary Anatomy is a foundational course in the veterinary curriculum designed to develop a firm morphological understanding that will
underpin all future learning in both the basic biomedical sciences and the clinical sciences. This new course has incorporated content currently presented in VBMS 220.8 (Veterinary Anatomy), VBMS 231 (Veterinary Microscopic Anatomy) and VBMS 223 (Veterinary Embryology). We have increased the number of lectures and labs accordingly.

4. Learning objectives:

1. To reinforce what you already know about vertebrate structure – it might be a lot, it might not.
2. To develop a sturdy base of comparative and functional morphological knowledge that will underpin all of your future learning in the basic biomedical and clinical sciences.
3. In a general way, to understand the potential future applications of your anatomical knowledge.
4. To understand the functional components of vertebrate body systems.
5. To understand the basic topographical anatomy of common domestic animals.
6. To start compiling a mental list of anatomical sites that are of particular clinical importance.
7. To relate your general anatomical knowledge to the appearance of the living animal, as well as to radiographs and other medical images.
8. To generate functional and conceptual links between your anatomical knowledge and what you learn in other biomedical science courses.
9. To understand the principles of anatomical terminology and to employ the terminology correctly and intelligently.
10. To understand, by way of demonstration and participation, the anatomical basis of some common clinical procedures.
11. To develop, improve, and hone your tissue handling and dissection skills with both preserved and fresh specimens.

5. Course outline:

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Topic</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How to Survive and Prosper in Veterinary Anatomy</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>2</td>
<td>Bones</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>3</td>
<td>Muscles</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>4</td>
<td>Joints</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>5</td>
<td>Nerves of the Forelimb of the Dog (Worthman Film)</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>6</td>
<td>Nerves of the Hindlimb (Worthman Film)</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>7</td>
<td>Radiographic Anatomy of canine limbs</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>8</td>
<td>Standing without Effort</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>9</td>
<td>The Horse's Digit</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>10</td>
<td>The Horse's Hoof</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>11</td>
<td>Distal Limbs of Ruminants</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>12</td>
<td>Thorax I: Introduction - Bones, Joints, and Muscles</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>13</td>
<td>Thorax IV: The Mediastinum and Introduction to the Autonomic Nervous System</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>14</td>
<td>Thorax II: Respiration and the Diaphragm</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>15</td>
<td>Thorax III: The Tracheo-bronchial Tree and the lungs</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>16</td>
<td>Thorax V: The Heart: Topographic and Functional Anatomy</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>17</td>
<td>Thorax VI: Radiographic Anatomy of the Thorax</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>18</td>
<td>Abdomen I: Abdominal Wall, Inguinal Canal, and Epaxial Muscles</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>19</td>
<td>Abdomen II: The Gastrointestinal Tract of the Dog</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>20</td>
<td>Abdomen III: The Liver, Spleen and Pancreas of</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>21</td>
<td>Large and Small Animals; Abdominal Circulation</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>22</td>
<td>Abdomen IV: Caudal Fermentation: GIT of Pig</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>23</td>
<td>Abdomen V: Caudal Fermentation: GIT of Horse</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>24</td>
<td>Abdomen VI: Abdomen of the Horse (Video: Equine abdomen)</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>25</td>
<td>Lymphoid System</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>26</td>
<td>Rumen I: GIT and Omenta</td>
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<td>27</td>
<td>Integument</td>
<td>Gross Anatomy</td>
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<tr>
<td>28</td>
<td>Rumen II: Rumen Movement, Innervation and Vessels; Intestines of Ruminants</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>29</td>
<td>The Udder</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>30</td>
<td>Radiographic Anatomy of the Abdomen</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>31</td>
<td>Urinary System: Kidneys, Ureters and Bladder</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>32</td>
<td>Pelvic and Urogenital: Diaphragms, Perineum, Nerves and Vessels</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>33</td>
<td>Reproduction I: Ovaries and Uterine Tubes</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>34</td>
<td>Reproduction II: Tubular Genitalia and Broad Ligament</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>35</td>
<td>Reproduction III: Anatomic Strategies for Maternal</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>36</td>
<td>Recognition of Pregnancy</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>37</td>
<td>Reproduction IV: The Origin of the Ejaculate: Testes and Accessory Genital Glands</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>38</td>
<td>Reproduction V: &quot;Male Delivery&quot; System</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>39</td>
<td>Introduction to the Head and its External Features</td>
<td>Gross Anatomy</td>
</tr>
<tr>
<td>40</td>
<td>Oral Cavity, Tongue and Salivary Glands</td>
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<td>Muscles of Mastification, Pharynx and Swallowing</td>
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<td>Teeth in General</td>
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<td>46</td>
<td>Specialization of Teeth; Age Estimation</td>
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<td>Ear</td>
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<td>Blood and Lymph Vessels of the Head</td>
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<td>Cranial Nerves I</td>
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<td>Endocrine Glands 2: Parathyroid, Adrenal, Pancreas</td>
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<td>Veins, Heart, and Lymph Vessels</td>
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<td>Respiratory System: Air-passages</td>
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<td>Lungs: Gas Exchange Areas and Avian Lungs</td>
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<td>Digestive System 2: Esophagus and Monogastic Stomach</td>
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6. Student evaluation

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<td>Q3 Midterm</td>
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<tr>
<td>Final Exam</td>
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<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject VBMS
Course Number 250
Term from which this course will become effective: 202009
Month: January May July September    Year: 2020

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? Veterinary Biomedical Sciences
If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval
What is the academic credit unit weight of this course? 9 credit units
Is this course supposed to attract tuition charges? If so, how much? (use tuition category)
Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO
Do you allow this course to be repeated for credit? Yes  No
How should this course be graded?
C – Completed Requirements
   (Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
   (Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail  
(Grade options for instructor: Pass, Fail, In Progress)  
S – Special  
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types  
Schedule Types that can be used for sections that fall under this course: 
(Indicate – highlight - all possible choices)

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<td>Coop Class</td>
<td>RDG</td>
<td>Reading Class</td>
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<td>RES</td>
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<td>Internet Help</td>
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<td>Supervised Self Instruction</td>
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<tr>
<td>IN2</td>
<td>Internship - CMPT &amp; EPIP</td>
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<td>Studio</td>
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<td>Internship - General</td>
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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course. 

NOAC  No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong? 

FNAR  Fine Arts  
HUM  Humanities  
SCIE  Science  
SOCS  Social Science  
ARNP  No Program Type (Arts and Science)

Course Syllabus
Long Title  Veterinary Anatomy
Course Long Title (maximum 100 characters)  
Course Short Title (maximum 30 characters)  Veterinary Anatomy
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘ “ ; : , & @ ! ? / + - = % ( )]
Course Description
Course Description (please limit to 150 words or less)

A general introduction to the gross and microscopic anatomy of the common large and small domestic animal species with emphasis on areas of particular functional and clinical significance or biological importance.

Registration Information
Formerly: VBMS 220.8
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in the 1st year of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:
Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

**Information For Display In The Catalogue Only**
Please refer to the Key to Course Descriptions at: http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) **VBMS 250.9**

Catalogue Term Hour Listing (e.g. 3L-2P) **77L – 140P**

**Additional Notes**
Course Change Proposal Form

Course Change Proposal

Basic information about the course change

1. Department: Veterinary Biomedical Sciences

2.  Course: VBMS 208

3.  Information required for the Calendar:

   Title of course: Veterinary Neuroscience

   Total Hours:
   ______  Lecture
   ____  Seminar (increase from 16 )
   ______  Lab
   ______  Tutorial
   ______  Other

   Restrictions:
   Calendar description:

4.  Reason for change:
   An additional case is to be added to this course. Each group will be responsible for 5 cases over a 4 hour period per case.

________________________________________  ______________________________
Department Head Signature                     Faculty Signature

________________________________________
Date                                          Date

(Please submit to WCVM Student Services, Rm 4104.2, for final approval)
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: Gillian Muir, VBMS Dept Head

2. Information required for the Catalogue
   2.1 Label & Number of course: VBMS 260.13
   2.2 Title of course: Form and Function
   2.3 Total Hours: Lecture = 166  Lab/tutorial = 94
   2.4 Weekly Hours: Lecture  Seminar  Lab  Tutorial  Other VARIIES
   2.5 Term in which it will be offered: T1  T2  T1 or T2  T1 and T2
   2.6 Prerequisite: Admission to the DVM program
   2.7 Calendar description:
      In-depth comparison of the structure and function of the major body systems in common domestic animals, including formation, structure, function of basic cells and tissues, and the normal physiology, biochemistry and microscopic structure of the musculoskeletal, cardiovascular, respiratory, endocrine, renal, and gastrointestinal systems, appropriate to achieve an appreciation of common disease states.

3. Rationale for introducing this course.
   Consistent with our collectively developed principles for Year 1 DVM curriculum revision, our intent is to deliver an integrated and co-ordinated learning experience that aligns essential content with Year 1 outcomes and competencies. To that end, this course will incorporate content currently presented in the following discipline-based courses: VBMS 224 (Veterinary Physiology), VBMS 202 (Veterinary Biochemistry) and parts of VBMS 231 (Veterinary Microscopic Anatomy) and VBMS 223 (Veterinary Embryology). The new course will integrate and organize content according to major body systems, an approach which more closely reflects the body system-based instruction in pathology and medicine in subsequent years of the DVM program.
4. Learning Outcomes for this course.

By the end of the course, students will be able to:

1. Describe and explain the normal structure and function of the major body systems in common domestic species
2. Describe the development, structure and metabolism of basic cells and tissues.
3. Interpret, prioritize and evaluate a set of data from animals with uncomplicated disease conditions, and explain the findings in relation to normal physiology and metabolism.
4. Evaluate and critique the accuracy and reliability of health-related information.

5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? no
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? yes

6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? VBMS 223, VBMS 231, VBMS 202, VBMS 224
   Course(s) for which this course will be a prerequisite? none
   Is this course to be required by your majors, or by majors in another program? yes

7. Course outline.
   (Weekly outline of lectures or include a draft of the course information sheet.)
   * See attached*

8. Enrolment.
   Expected enrollment: 78-90
   From which colleges? WCVM

9. Student evaluation.
   Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)
   Midterm exams x 8 @ 10 - 15% each
   Final Exam @ 15%

10. Required text:
   Include a bibliography for the course.

11. Resources.
   Proposed instructor: multiple
   How does the department plan to handle the additional teaching or administrative workload?
   Two faculty course coordinators will be assigned to the course. The Department has 2 staff teaching coordinators to manage and coordinate laboratories and tutorials.
   Are sufficient library or other research resources available for this course? yes
   Are any additional resources required (library, audio-visual, technology, etc.)? no

12. Date of Implementation:
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</table>
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject VBMS
Course Number 260.13
Term from which this course will become effective: 202009
Month: January May July September Year: 2020

Information Block
What is the academic college or school to which this course belongs? WCVM

What is the department or school that has jurisdiction over this course? VBMS – veterinary biomedical sciences

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 13 credit units

Is this course supposed to attract tuition charges? If so, how much? (use tuition category) NO

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
Schedule Types

Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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<td>Televised Class</td>
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<td>Laboratory</td>
<td>TUT</td>
<td>Tutorial</td>
</tr>
<tr>
<td>LC</td>
<td>Lecture/Clinical (Dent Only)</td>
<td>WEB</td>
<td>Web Based Class</td>
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<td>Lecture</td>
<td>XCH</td>
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<td>Lecture/Laboratory (Dent Only)</td>
<td>XGN</td>
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<td>PCL</td>
<td>Pre-Clinical (Dent Only)</td>
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<td>Schedule Type Not Applicable</td>
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<tr>
<td>PRA</td>
<td>Practicum</td>
<td>XNC</td>
<td>No Academic Credit</td>
</tr>
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</table>

Detailed Information

What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus

Long Title Form and Function
Course Long Title (maximum 100 characters) Form and Function
Course Short Title (maximum 30 characters) Form and Function
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed ['" ; , $ & @ ! ? / + - = % ( )']
Course Description
Course Description (please limit to 150 words or less)

In-depth comparison of the structure and function of the major body systems in common domestic animals, including formation, structure, function of basic cells and tissues, and the normal physiology, biochemistry and microscopic structure of the musculoskeletal, cardiovascular, respiratory, endocrine, renal, and gastrointestinal systems, appropriate to achieve an appreciation of common disease states.

Registration Information
Formerly: VBMS 202.4 + VBMS 232.2 + VBMS 224.9 + VBMS 231.4
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program Must be enrolled in the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:
Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) VBMS 260.13

Catalogue Term Hour Listing (e.g. 3L-2P) 166L – 94P

Additional Notes
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue
   2.1 Label & Number of course: VINT 202.5
   2.2 Title of course: Veterinary Clinical Skills I
   2.3 Total Hours: 1 Lecture Seminar 70 Lab Tutorial Other
   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other

WCVM has an irregular timetable

2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2

2.6 Prerequisite: Enrollment in year 1 of the DVM program

2.7 Calendar description:

This course is designed to provide learning opportunities for veterinary students to master key clinical skills that will form the foundation for their clinical practice as they progress through the veterinary program. Laboratory exercises on models or healthy animals will emphasize hands-on practice of each specific skill.

2.8 Any additional notes

3. Rationale for introducing this course.

A successful veterinarian must be able to perform a number of clinical skills in order to deliver veterinary care in a safe and effective manner. This course is designed to build on the skills acquired during Veterinary Clinical Skills 1 and provide learning opportunities for students to learn and master these foundational clinical skills so as they progress through their professional career they may perform them on veterinary patients competently and confidently in a manner that maximizes patient and personal safety.

4. Learning Objectives for this course.

1. Visually assess the status and behavior of the common domestic species (i.e. cow, cat, dog and horse) to determine if normal handling procedures are safe or if additional techniques are indicated and to determine if the animal is displaying evidence of disease, injury or significant stress.
2. Exercise safe animal handling of the common species (i.e. cow, cat, dog and horse) and have a working understanding of safe animal handling procedures for other species that they may be called on to provide veterinary care for.

3. Establish a rapport with a new client and collect the pertinent general history of a healthy animal in an individual or herd setting. This information must also be able to be communicated to other professionals in a concise and organized fashion.

4. Perform a complete and organized general examination on the common species (i.e. cow, cat, dog and horse) and determine that vital parameters are within the normal range for the animal examined.

5. Perform the following basic surgical skills
   a. Identify commonly used surgical instruments and be able to demonstrate how to hold them and when their use is indicated.
   b. Perform a secure surgical knot (square and surgeon’s) with an instrument tie and a hand-tie
   c. Perform the commonly used suture patterns and determine when their use is appropriate
   d. Be able to bury the knot(s) of a simple interrupted and simple continuous suture pattern
   e. Tie a secure ligature using an instrument or hand-tie

6. Perform a general handwashing, don non-sterile gloves and remove them minimizing contamination

7. Be able to take the mg/kg dose and determine the amount of the drug that should be administered by pill or injection for a specific animal.

8. Administer a medication by the oral, intramuscular, subcutaneous and intradermal routes at the species accepted locations in each of the common species.

9. Perform a venipuncture to collect blood or administer a medication in the common species

10. Perform basic screening point of care diagnostic tests and interpret the results

11. Perform nerve blocks used for diagnostic and analgesic effects in the common species

12. Perform a dental exam in the common species and estimate their age

13. Perform an otoscopic examination in a dog and cat

5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? NO
   If so, were these departments consulted? (Include correspondence) YES
   Were any other departments asked to review or comment on the proposal? YES
6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? VINT 205.0
   Course(s) for which this course will be a prerequisite? Required for year 2 of the DVM program
   Is this course to be required by your majors, or by majors in another program? yes

7. Course outline.

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<tbody>
<tr>
<td>1</td>
<td>Skin incision/blunt dissection/instrument holds</td>
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<td>2</td>
<td>History framework</td>
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<td>3</td>
<td>Large animal</td>
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<td>Distant exam and BCS</td>
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<td>Cat</td>
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<td>Horse</td>
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<td>Bovine</td>
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<td>Musculoskeletal examination</td>
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<td>Cat forelimb</td>
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<td>Horse forelimb</td>
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<td>Cow distal limb</td>
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<td>Dog hind limb</td>
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<td>13</td>
<td>Nail trim (cat/dog)</td>
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<td>14</td>
<td>Cat Hind limb</td>
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<td>15</td>
<td>Horse hind limb</td>
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<td>16</td>
<td>Equine Hoof clean/exam</td>
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<td>17</td>
<td>Cow foot exam</td>
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<td>Thoracic examination</td>
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<td>Cat</td>
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<td>Abdominal examination</td>
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<td>Cat</td>
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<td>Dog</td>
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<td>Equine</td>
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<td>Bovine</td>
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<td>27</td>
<td>Perineum/external genitalia/mammary/skin examination, rectal exam basic structures</td>
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<td>28</td>
<td>Dog</td>
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<td>Cat</td>
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<td>Equine</td>
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<td>Bovine</td>
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<td>Basic surgical skills</td>
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<td>34</td>
<td>Instrument ties</td>
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<td>Common Instruments</td>
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<td>36</td>
<td>Principles of suturing</td>
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<td>37</td>
<td>Suture patterns</td>
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<td>43</td>
<td>Burying knots (SI, SC), Intradermal pattern</td>
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<td>44</td>
<td>Put on halter, quick release knots Horse/Cow</td>
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<td>45</td>
<td>Mg/kg dose → draw up appropriate volume, Reconstitute vaccine and administer SQ all</td>
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<td>46</td>
<td>Oral pill/paste administration Dog</td>
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<td>47</td>
<td>Cat</td>
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<td>Cow</td>
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<td>IM, SQ and Intradermal injections and common sites Dog/Cat</td>
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<td>51</td>
<td>Horse/Cow</td>
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<td>Cat</td>
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<td>55</td>
<td>Horse</td>
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<td>Handwashing, donning/removing gloves/ basic PPE</td>
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<td>PCV/TP/ Blood glucose (Stick, glucometer), lactate, stick U/A, Blood smear and staining</td>
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<td>58</td>
<td>Nerve blocks distal forelimb Horse</td>
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<td>59</td>
<td>Nerve blocks distal hind limb Horse</td>
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<td>60</td>
<td>Local nerve blocks Dog</td>
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<td>Dental exam/estimate age Horse</td>
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<td>62</td>
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<td>Ear exam</td>
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<td>Complete physical exam Dog</td>
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<td>Cat</td>
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<td>Horse</td>
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<td>67</td>
<td>Cow</td>
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<td>68</td>
<td>Self-directed review and feedback</td>
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<td>69</td>
<td>Self-directed review and feedback</td>
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<tr>
<td>70</td>
<td>Self-directed review and feedback</td>
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<tr>
<td></td>
<td>Clinical Skills Exam</td>
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</tbody>
</table>

Please note: Clinical skills sessions will be reordered in the schedule to maximize integration with other components of the curriculum and to increase skill retention.

8. Enrolment.
   Expected enrollment: **83**
   From which colleges? **WCVM**

9. Student evaluation.
   Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

   Students will receive formative feedback on their skill development to allow continual refinement of their skills over the duration of the course.
This is a Pass or Fail course. A random selection of these skills will be selected to be performed by each student using an Objective Structured Clinical Examination format with multiple stations. Students must successfully perform at a competent level ALL stations to receive a pass for this course. Students will be allowed to repeat up to two OSCE examination stations ONCE after which a failure will be registered for the course.

10. Required text: NONE
    Include a bibliography for the course.

11. Resources.
    Proposed instructor: This is a multi-instructor course.
    How does the department plan to handle the additional teaching or administrative workload? This course requires a shared workload including VBMS, VSAC and VLAC
    Are sufficient library or other research resources available for this course? YES
    Are any additional resources required (library, audio-visual, technology, etc.)? NO

12. Date of Implementation:
    To be offered: annually biennially other
SESD: Course Creation Information Form

(version: November, 2015)

To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject
VINT
Course Number
202.5
Term from which this course will become effective: 202009
Month: January May July September Year: 2020

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? WCVM – Dean’s Office
If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 5 credit units

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?

C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail  
(Grade options for instructor: Pass, Fail, In Progress)
S – Special  
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:  
(Indicate – highlight - all possible choices)

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<td>Teacher Supervision</td>
</tr>
<tr>
<td>IND</td>
<td>Independent Studies</td>
<td>TEL</td>
<td>Televised Class</td>
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<td>Laboratory</td>
<td>TUT</td>
<td>Tutorial</td>
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<td>Lecture/Clinical (Dent Only)</td>
<td>WEB</td>
<td>Web Based Class</td>
</tr>
<tr>
<td>LEC</td>
<td>Lecture</td>
<td>XCH</td>
<td>Exchange Program</td>
</tr>
<tr>
<td>LL</td>
<td>Lecture/Laboratory (Dent Only)</td>
<td>XGN</td>
<td>Ghost Schedule Type Not Applicable</td>
</tr>
<tr>
<td>MM</td>
<td>Multimode</td>
<td>XHS</td>
<td>High School Class</td>
</tr>
<tr>
<td>PCL</td>
<td>Pre-Clinical (Dent Only)</td>
<td>XNA</td>
<td>Schedule Type Not Applicable</td>
</tr>
<tr>
<td>PRA</td>
<td>Practicum</td>
<td>XNC</td>
<td>No Academic Credit</td>
</tr>
</tbody>
</table>

Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title  Veterinary Clinical Skills 1
Course Long Title (maximum 100 characters)
Course Short Title (maximum 30 characters) Veterinary Clinical Skills 1
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed ['“ ; : $ & ! ? / + - = % # ( ) ]
Course Description
Course Description (please limit to 150 words or less)

This course is designed to provide learning opportunities for veterinary students to master key clinical skills that will form the foundation for their clinical practice as they progress through the veterinary program. Laboratory exercises on models or healthy animals will emphasize hands-on practice of each specific skill.

Registration Information
Formerly: VINT 205.0
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in year 1 of the DVM program.
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.
Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) **VINT 202.5**

Catalogue Term Hour Listing (e.g. 3L-2P) **1L – 70P**

Additional Notes
New Course Proposal Form

This form can be used by any college which does not already have a course proposal form.

Basic information about the proposed course:

1. Department: Veterinary Biomedical Sciences  College: Western College of Veterinary Medicine
2. Signature of department head or dean: ______________________________________________________
3. Information required for the Calendar:
   3.1 Label & Number of course: **VBMS 304.3**
   3.2 Title of course: Veterinary Anesthesia and Analgesia
   3.3 Total Hours: Lecture 45  Seminar 0  Lab 0  Tutorial 0  Other 0
   3.4 Weekly Hours: Lecture  Seminar  Lab  Tutorial  Other
   3.5 Term in which it will be offered: __T1__X_T2  __T1 or T2  __T1 and T2
   3.6 Prerequisite: Completion of year 1 DVM program
   3.7 Calendar description:

   This course examines mechanisms, physiology, impacts, and recognition and treatment of animal pain and is designed to teach the fundamental principals of veterinary anesthesia. It will focus on pharmacology, physiology and pathophysiology as it relates to anesthesia of domestic species with commonly encountered conditions.

3.8 Any additional notes

4. Rationale for introducing this course.

This course combines the essential elements of the old VSAC 356.1 and VBMS 305.2

To gain an in depth knowledge about anatomy, physiology and mechanisms of pain. To recognize pain and gain an understanding of animal welfare and behavior in multiple species. Pharmacology and clinical application of analgesics are discussed to give students an understanding of how to alleviate pain in animals. Knowledge of safe anesthetic management of patients and their life support is essential for the veterinarian.

5. Learning Objectives for this course.

To understand anatomy, physiology and mechanisms of pain transmission and modulations. To understand pain related behaviors that can be used to help recognize pain in animal patients and to
gain an understanding of species specific differences. To apply knowledge of pharmacological action of analgesics so that effective treatment of animal pain can be accomplished in different pain states.

a. A knowledge of the equipment needed to deliver and monitor safe and effective anesthesia.
b. An understanding of the state of general anesthesia.
c. Mechanisms of drug action (injectables, inhalational, and local anesthetics)
d. A knowledge of possible complications arising from the use of anesthetics, and the pathophysiology of the state of anesthesia.
e. Performance of safe anesthesia in common domestic species.
g. A knowledge of the most current techniques to resuscitate patients from cardiac arrest.

6. Impact of this course.
Are the programs of other departments or Colleges affected by this course? **YES**
If so, were these departments consulted? (attach correspondence) **Small Animal Clinical Sciences**
Were any other departments asked to review or comment on the proposal? **No**

7. Other courses or program affected (please list course titles as well as numbers).
Course(s) to be deleted? **VSAC 356.1 and VBMS 305.2 will be deleted**
Course(s) for which this course will be a prerequisite? **3rd year of the DVM program**

Is this course to be required by your majors, or by majors in another program? **DVM**

8. **Course outline.**
(Weekly outline of lectures or attach a draft of the course information sheet.)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Introduction and General Principles of Anesthesia and Analgesia</td>
<td>lect</td>
</tr>
<tr>
<td>2 Behavioural Aspects of Pain 1</td>
<td>lect</td>
</tr>
<tr>
<td>3 Behavioural Aspects of Pain 2</td>
<td>lect</td>
</tr>
<tr>
<td>4 Neurophysiology of Pain Pathways</td>
<td>lect</td>
</tr>
<tr>
<td>5 Plasticity of Pain Sensation</td>
<td>lect</td>
</tr>
<tr>
<td>6 Central Modulation of Pain Transmission</td>
<td>lect</td>
</tr>
<tr>
<td>7 Pharmacology of Pain Transmission and Modulation</td>
<td>lect</td>
</tr>
<tr>
<td>8 Physiology of Anesthesia</td>
<td>lect</td>
</tr>
<tr>
<td>9 Sedatives (benzodiazepines, phenothiazines, trazadone, gabapentin, includes pre-hospital medication)</td>
<td>lect</td>
</tr>
<tr>
<td>10 Pharmacology of Alpha2-Agonists 1</td>
<td>lect</td>
</tr>
<tr>
<td>11 Pharmacology of Alpha2-Agonists 2</td>
<td>lect</td>
</tr>
<tr>
<td>12 Pharmacology of Opioids 1</td>
<td>lect</td>
</tr>
<tr>
<td>13</td>
<td>Pharmacology of Opioids 2</td>
</tr>
<tr>
<td>14</td>
<td>Misc 1 (NMDA, gabapentin, cannabinoids, etc)</td>
</tr>
<tr>
<td>15</td>
<td>Pharmacology: NSAIDS and Corticosteroids 1</td>
</tr>
<tr>
<td>16</td>
<td>Pharmacology: NSAIDS and Corticosteroids 2</td>
</tr>
<tr>
<td>17</td>
<td>Pharmacology: NSAIDS and Corticosteroids 3</td>
</tr>
<tr>
<td>18</td>
<td>Nutrition of Pain Management</td>
</tr>
<tr>
<td>19</td>
<td>Pharmacology of Local Anesthetics</td>
</tr>
<tr>
<td>20</td>
<td>Anesthesia Induction and Injectables</td>
</tr>
<tr>
<td>21</td>
<td>Inhalation Anesthesia 1</td>
</tr>
<tr>
<td>22</td>
<td>Inhalation Anesthesia 2</td>
</tr>
<tr>
<td>23</td>
<td>Anesthesia Equipment and Monitoring 1</td>
</tr>
<tr>
<td>24</td>
<td>Anesthesia Equipment and Monitoring 1</td>
</tr>
<tr>
<td>25</td>
<td>Anesthesia of the Dog</td>
</tr>
<tr>
<td>26</td>
<td>Anesthesia of the Horse</td>
</tr>
<tr>
<td>27</td>
<td>Anesthesia of Other Species</td>
</tr>
<tr>
<td>28</td>
<td>Perioperative Pain Management</td>
</tr>
<tr>
<td>29</td>
<td>Management of Perioperative Pain in Large Animals</td>
</tr>
<tr>
<td>30</td>
<td>Management of pain in acute injury, critical patient, abdominal crisis</td>
</tr>
<tr>
<td>31</td>
<td>Bovine Pain Management</td>
</tr>
<tr>
<td>32</td>
<td>Chronic pain and colic pain in horses</td>
</tr>
<tr>
<td>33</td>
<td>Management of Chronic Pain: Cancer</td>
</tr>
<tr>
<td>34</td>
<td>Chronic Pain Management Osteoarthritis</td>
</tr>
<tr>
<td>35</td>
<td>Chronic Pain Management - Other Conditions and Quality of Life</td>
</tr>
<tr>
<td>36</td>
<td>Pain Management in Pocket Pets</td>
</tr>
<tr>
<td>37</td>
<td>Acupuncture</td>
</tr>
<tr>
<td>38</td>
<td>Physical Medicine and Rehabilitation in Painful Conditions 1</td>
</tr>
<tr>
<td>39</td>
<td>Physical Medicine and Rehabilitation in Painful Conditions 2</td>
</tr>
<tr>
<td>40</td>
<td>Complications of Anesthesia and Analgesia</td>
</tr>
<tr>
<td>41</td>
<td>CPR</td>
</tr>
<tr>
<td>42</td>
<td>Euthanasia Pharmacology and Methodology</td>
</tr>
<tr>
<td>43</td>
<td>Communications - Euthanasia (describing the euthanasia process)</td>
</tr>
<tr>
<td>44</td>
<td>Communications - Euthanasia (small and large group discussion)</td>
</tr>
</tbody>
</table>

Expected enrollment: 78
From which colleges? WCVM

10. **Student evaluation.**
Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)
The content of the lectures will be assessed through a 3hr final examination (70%) and a 1 hr midterm examination.

11. Required text: **NONE**
    Attach a bibliography for the course.

12. Resources.
    Proposed instructor: Drs. Machin, Ambros
    How does the department plan to handle the additional teaching or administrative workload? N/A
    Are sufficient library or other research resources available for this course? **Yes**
    Are any additional resources required (library, audio-visual, technology, etc.)? No

13. Date of Implementation: Sept 2021 ____________
    To be offered:  _X_ annually  ___biennially  ___other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject: VBMS
Course Number: 304
Term from which this course will become effective: 202109
Month: January May July September Year: 2021

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? Veterinary Biomedical Science (VBMS) and Veterinary Small Animal Clinical Science (VSAC)
If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval
What is the academic credit unit weight of this course? 3 credit units
Is this course supposed to attract tuition charges? If so, how much? (use tuition category) no
Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO
Do you allow this course to be repeated for credit? Yes No
How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
Grade options for instructor: grade of 0% to 100%, IP in Progress

P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)

S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>Clinical</td>
<td>PRB</td>
<td>Problem Session</td>
</tr>
<tr>
<td>COO</td>
<td>Coop Class</td>
<td>RDG</td>
<td>Reading Class</td>
</tr>
<tr>
<td>FLD</td>
<td>Field Trip</td>
<td>RES</td>
<td>Research</td>
</tr>
<tr>
<td>ICR</td>
<td>Internet Chat Relay</td>
<td>ROS</td>
<td>Roster (Dent Only)</td>
</tr>
<tr>
<td>IHP</td>
<td>Internet Help</td>
<td>SEM</td>
<td>Seminar</td>
</tr>
<tr>
<td>IN1</td>
<td>Internship - Education</td>
<td>SSI</td>
<td>Supervised Self Instruction</td>
</tr>
<tr>
<td>IN2</td>
<td>Internship - CMPT &amp; EPIP</td>
<td>STU</td>
<td>Studio</td>
</tr>
<tr>
<td>IN3</td>
<td>Internship - General</td>
<td>SUP</td>
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<td>Practicum</td>
<td>XNC</td>
<td>No Academic Credit</td>
</tr>
</tbody>
</table>

Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC  No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR  Fine Arts
   HUM   Humanities
   SCIE  Science
   SOCS  Social Science
   ARNP  No Program Type (Arts and Science)

Course Syllabus
Long Title Veterinary Anesthesia and Analgesia
Course Long Title (maximum 100 characters) Veterinary Anesthesia and Analgesia
Course Short Title (maximum 30 characters) Veterinary Anesthesia and Analgesia
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘ “ ; , $ & @ ! ? / + - = % # ( ) ]
Course Description
Course Description (please limit to 150 words or less)

This course examines mechanisms, physiology, impacts, and recognition and treatment of animal pain and is designed to teach the fundamental principals of veterinary anesthesia. It will focus on pharmacology, physiology and pathophysiology as it relates to anesthesia of domestic species with commonly encountered conditions.

Registration Information
Formerly: VSAC 356.1 and VBMS 305.2
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program Must be enrolled in the 2nd year of the DVM program.
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have Sirius prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:
Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php

Catalogue Credit Units (e.g. 110.6) " VMBS 304.3 

Catalogue Term Hour Listing (e.g. 3L-2P) 45L

Additional Notes
New Course Proposal Form

This form can be used by any college which does not already have a course proposal form.

Basic information about the proposed course:

1. Department: Small Animal Clinical Sciences  College: Western College of Veterinary Medicine
2. Signature of department head or dean:
3. Information required for the Calendar:
   3.1 Label & Number of course: VSAC 320.3
   3.2 Title of course: Diagnostic Medicine
   3.3 Total Hours: Lecture 38  Seminar 0  Lab 0  Tutorial 0  Other 0
   3.4 Weekly Hours: Lecture  Seminar  Lab  Tutorial  Other
   3.5 Term in which it will be offered: __T1  __T2  __T1 or T2  __T1 and T2
   3.6 Prerequisite: Completion of year 1 of the DVM program
   3.7 Calendar description:
   A series of lectures and laboratories dealing with clinical examinations of the domestic animal species, localizing disease within a body system based on the clinical exam, exploring the diagnostic techniques available for patient evaluation and using the problem oriented approach to making a diagnosis. Emphasis will be placed on the importance of taking an accurate history and performing a thorough physical examination and on comparative aspects of clinical examination.
   3.8 Any additional notes

4. Rationale for introducing this course.

This course will introduce students to the importance of a complete clinical examination and a logical systematic approach in the localization of disease and reaching a diagnosis. This will prepare the student for a problem-based approach to diseases as emphasized in the third year Medicine and Surgery courses.

5. Learning Objectives for this course.

1. know the normal structure and function of each system in the major domestic animal species
2. recognize clinical abnormalities that are likely to occur when normal structure or function is altered and be able to localize disease within a body system based on historical or physical examination findings.
3. learn the components of a complete history and a problem-directed history in each of the major
domestic species and recognize the importance of collecting a good history to making a
diagnosis.
4. be able to perform a complete physical examination on a dog, cat, horse and cow and to
recognize clinically important abnormalities
5. know the diagnostic tests and techniques that are available to investigate disease in each
system
6. be familiar with the problem oriented approach to medical cases and be able to use this method
to reach a diagnosis.

6. Impact of this course.
Are the programs of other departments or Colleges affected by this course? No
If so, were these departments consulted? (attach correspondence)
Were any other departments asked to review or comment on the proposal? yes

7. Other courses or program affected (please list course titles as well as numbers).
Course(s) to be deleted?
Course(s) for which this course will be a prerequisite? 3rd year of the DVM program
Is this course to be required by your majors, or by majors in another program? N/A

8. Course outline.
(Weekly outline of lectures or attach a draft of the course information sheet.)
Clinical Diagnosis – Problem Oriented Medicine (2h)
Record keeping: the problem oriented medical record (1h)
Communication – Taking a complete and accurate history (3h)
   History taking for the dog and cat patient
   History taking for the equine patient
   History taking for bovine and small ruminant patients
Physical Examination: developing a system (1h)
Dermatology (4h)
   Clinical examination and diagnostic testing
   Alopecia
   Pruritic skin disease
   Scaling, pigmentary changes
   Diagnostic techniques in dermatology
Musculoskeletal disorders (2h)
   Lameness examination and diagnostic testing
   Localizing lameness based on gait, palpation and manipulation
Neurology (5h)
   Neurologic Examination and diagnostic testing
   Localizing lesions
Midterm (1h)
Respiratory (4h)
   Clinical Examination and diagnostic testing
   Localizing lesions based on clinical findings
Cardiology (3h)
  Clinical Examination and diagnostic testing
Gastrointestinal (7h)
  Clinical examination and diagnostic testing
  Comparative aspects of the small animal and large animal clinical gastrointestinal examination
  Localizing lesions based on clinical findings
Urinary (4h)
  Clinical examination and diagnostic testing
  Localizing lesions
Mystery Case (1-3h)

   Expected enrollment: 83
   From which colleges? WCVM

10. Student evaluation.

   Midterm Examination: 30%
   Laboratory: 10%
   Final Examination: 60%

11. Required text: NONE

   Attach a bibliography for the course.

12. Resources.
   Proposed instructor: This is a multi-instructor course. The proposed coordinator is Dr. Tony Carr

   How does the department plan to handle the additional teaching or administrative workload? Sl. Increase
   N/A

   Are sufficient library or other research resources available for this course? Yes

   Are any additional resources required (library, audio-visual, technology, etc.)? No

13. Date of Implementation: Sept 2021

   To be offered: X annually ___ biennially ___ other
SESD: Course Creation Information Form

(version: November, 2015)

To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject VBMS
Course Number 306.5
Term from which this course will become effective: 202109
Month: January May July September Year: 2021

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? Veterinary Biomedical Sciences
If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval
What is the academic credit unit weight of this course? 5 credit units
Is this course supposed to attract tuition charges? If so, how much? (use tuition category) NO
Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees)
Do you allow this course to be repeated for credit? Yes No
How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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<th>Code</th>
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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title Veterinary Pharmacology
Course Long Title (maximum 100 characters) Veterinary Pharmacology
Course Short Title (maximum 30 characters) Veterinary Pharmacology

(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed ["", ; , $ & @ ! ? / + - = % ( ) ]
Course Description

This course is to provide a basic understanding of how drugs work, and how they interact with the animal that they are administered to, e.g. the processes of absorption, distribution, metabolism and elimination. In addition the processes by which drugs can produce unwanted side effects will be studied. Drugs that are used widely in veterinary medicine will be particularly featured.

Registration Information

Formerly: VBMS 333.6
Permission required: 
Restriction(s): course only open to students in a specific college, program/degree, major, year in program Must be enrolled in the 2nd year of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt Yes No

Equivalent Courses

Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) 306.5
Catalogue Term Hour Listing (e.g. 3L-2P) 63 L

Additional Notes
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue
   
   2.1 Label & Number of course: VINT 302.5

   2.2 Title of course: Veterinary Clinical Skills II

   2.3 Total Hours: 1 Lecture  Seminar  70 Lab  Tutorial  Other

   2.4 Weekly Hours: Lecture  Seminar  Lab  Tutorial  Other

   WCVM has an irregular timetable

   2.5 Term in which it will be offered: T1  T2  T1 or T2  T1 and T2

   2.6 Prerequisite: Completion of year 2 of the DVM program

   2.7 Calendar description:

   This course is designed to provide learning opportunities for veterinary students to master key clinical skills that will form the foundation for their clinical practice as they progress through the veterinary program. Laboratory exercises on models, cadavers or healthy animals will emphasize hands-on practice of each specific skill.

   2.8 Any additional notes

3. Rationale for introducing this course.

   A successful veterinarian must be able to perform a number of clinical skills in order to deliver veterinary care in a safe and effective manner. This course is designed to build on the skills acquired during Veterinary Clinical Skills 1 and provide learning opportunities for students to learn and master these foundational clinical skills so as they progress through their professional career they may perform them on veterinary patients competently and confidently in a manner that maximizes patient and personal safety.

4. Learning Objectives for this course.

   1. Establish a rapport with a new client and collect the pertinent detailed history of a sick animal in an individual or herd setting. This information must summarized and communicated to other professionals in a concise and organized fashion.

   2. Perform a complete physical examination on the common species (ie. cow, cat, dog and horse) to identify the affected system and perform a detailed examination of the affected system.
3. Perform a detailed dermatological examination and perform a skin scraping, skin biopsy, tape sample, trichogram and culture

4. Perform a detailed oral examination in the common species

5. Be able to identify and use common dental prophylactic instruments to perform a basic dental prophylaxis in small animals

6. Perform a basic dental floating in a horse

7. Perform a detailed examination of the ear in small animals including ear flush and cleaning, cytology and culture

8. Perform a detailed ophthalmic examination in the common species including retinal examination with an ophthalmoscope, Shirmer’s tear test, intraocular pressure measurement

9. Perform a detailed cardiac examination in the common species including electrocardiogram and describe the information that can be obtained from it.

10. Perform a detailed examination of the respiratory system in the common species

11. Perform an transtracheal wash and/or endotracheal wash in the common species

12. Perform a detailed gastrointestinal examination in the common species

13. Perform a rectal examination in the common species and identify the accessible structures

14. Express the anal sacs of a dog and cat

15. Perform a detailed examination of the urogenital examination in the common species

16. Palpate and express the bladder of a dog and cat

17. Perform a cystocentesis

18. Place a urinary catheterization of a normal dog, cat and horse

19. Safely position and take common radiographic projections in the common species

20. Perform a California Mastitis test

21. Place a mouth gag and perform an oral examination of a cow and horse

22. Place a stomach tube in the common species

23. Perform a detailed neurologic examination in the common species and be able to localize the lesion
24. Perform a detailed orthopedic examination in the common species and be able to localize the lameness

25. Perform an arthrocentesis in the common species

26. Perform an intubation in the common species

27. Set up an anesthetic machine for general anesthesia of the dog and cat

28. Apply and use common anesthetic monitoring equipment

29. Take the blood pressure of a dog and cat

30. Perform the following surgical skills
   a. Prepare the patient for aseptic surgery
   b. Prepare self to perform aseptic surgery
   c. Prepare the surgical field to perform aseptic surgery
   d. Perform and securely close a ventral midline abdominal incision
   e. Perform and securely close an incision in a hollow organ (eg. stomach, bladder)
   f. Perform and securely close an intestinal resection
   g. Perform a splenectomy
   h. Perform a castration in the common species
   i. Perform an ovarioectomy and ovariohysterectomy in the dog and cat
   j. Place a bandage on the distal limb
   k. Place a splint and cast on the distal limb
   l. Biopsy and remove a subcutaneous mass from a cat
   m. Securely close a laceration on the limb of a horse
   n. Perform an exploratory laparotomy and securely close a ventral midline exploratory laparotomy in a dog or cat
   o. Perform an ovariohysterectomy in a dog or cat

31. Place an intravenous catheter in the common species and design a fluid administration plan.

32. Administer SQ fluids to the common species.

33. Perform a fine needle aspirate and tru-cut biopsy of a subcutaneous mass.

34. Write and fill a prescription ensuring all legal responsibilities are met

35. Don personal protection equipment and be able to safely enter and exit an isolation facility to minimize the spread of infectious disease

36. Place a tail wrap in a horse

37. Perform an enzyme immunoassay (SNAP) test
5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? **NO**
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? **YES**

6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? **VINT 305.0**
   Course(s) for which this course will be a prerequisite? **Required for year 3 of the DVM program**
   Is this course to be required by your majors, or by majors in another program? **yes**

7. Course outline.

<table>
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<td>Perform a detailed oral exam in dogs and cats</td>
</tr>
<tr>
<td>4</td>
<td>Be able to identify and use common dental prophylactic instruments to perform a dental prophylaxis</td>
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<tr>
<td>5</td>
<td>Perform an oral exam and perform a basic dental floating in a horse</td>
</tr>
<tr>
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<td>Perform a detailed oral exam and place a mouth gag in a cow</td>
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<td>Perform an ophthalmic examination in the common species including retinal examination with an ophthalmoscope, Shirmer’s tear test, and intraocular pressure measurement</td>
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<td>Perform a detailed gastrointestinal examination and pass a stomach tube in a cow</td>
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<td>Perform a rectal examination and identify the accessible structures in the cow</td>
</tr>
<tr>
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<td>Perform a detailed gastrointestinal examination and pass a stomach tube in a horse</td>
</tr>
<tr>
<td>12</td>
<td>Perform an abdominocentesis in a horse</td>
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<td>13</td>
<td>Perform a rectal examination and identify the accessible structures in the horse</td>
</tr>
<tr>
<td>14</td>
<td>Perform a detailed gastrointestinal examination in dog</td>
</tr>
<tr>
<td>15</td>
<td>Place a stomach tube and nasoesophageal in a dog</td>
</tr>
<tr>
<td>16</td>
<td>Perform a rectal examination, identify the accessible structures in the dog and express anal glands</td>
</tr>
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<td>17</td>
<td>Perform a detailed respiratory examination and perform a transtracheal and endotracheal wash in the dog and cat</td>
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<td>Perform a detailed respiratory examination and perform a transtracheal and endotracheal wash in the horse</td>
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<td>Perform a detailed examination of the urogenital examination in the cow</td>
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<td>20</td>
<td>Perform a detailed examination of the urogenital examination in the horse and place a tail wrap</td>
</tr>
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<td>Perform a detailed examination of the urogenital examination in the dog and cat, palpate and express the bladder and perform a cystocentesis</td>
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<tr>
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<td>Place a urinary catheterization of a normal male dog and cat</td>
</tr>
<tr>
<td>23</td>
<td>Place a urinary catheterization of a normal female dog and cat</td>
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<tr>
<td>24</td>
<td>Perform a detailed orthopedic examination in the dog and be able to localize the lameness (including video review)</td>
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<td>Task Description</td>
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<td>Examine the mammary gland of the cow and perform a California Mastitis test</td>
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<td>31</td>
<td>Radiation safety procedures</td>
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<td>Safely position and take common radiographic projections in the common species (chest and abdomen of dog and cat)</td>
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<td>Safely position and take common radiographic projections in the common species (forelimb of dog and cat)</td>
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<td>Safely position and take common radiographic projections in the common species (hindlimb of dog and cat)</td>
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<td>35</td>
<td>Safely position and take common radiographic projections in the common species (head and spine of dog and cat)</td>
</tr>
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<td>36</td>
<td>Safely position and take common radiographic projections in the common species (distal limb of horse)</td>
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<td>Safely position and take common radiographic projections in the common species (carpus and tarsus of horse)</td>
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<td>Perform an intubation in the dog and cat</td>
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<td>Set up an anesthetic machine for general anesthesia of the dog and cat</td>
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<td>Setup and use common anesthetic monitoring equipment</td>
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<td>41</td>
<td>Take a blood pressure reading in the dog and cat</td>
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<td>42</td>
<td>Prepare the patient for aseptic surgery</td>
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<td>Prepare self to perform aseptic surgery</td>
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<td>44</td>
<td>Prepare the surgical field to perform aseptic surgery</td>
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<td>Perform and securely close a ventral midline abdominal incision</td>
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<td>Perform and securely close an incision in a hollow organ (eg. stomach, bladder)</td>
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<td>Perform and securely close an intestinal resection</td>
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<td>51</td>
<td>Perform an ovariohysterectomy and ovariectomy in the dog and cat</td>
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<td>Place a bandage on the distal limb</td>
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<td>Place a splint and cast on the distal limb</td>
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<td>Aseptic technique in surgery 1 (2hrs)</td>
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<td>Aseptic technique in surgery 2</td>
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<tr>
<td>56</td>
<td>Biopsy and remove a subcutaneous mass from a cat and securely close a laceration on the limb of a horse 1 (2 hrs)</td>
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<td>Perform and securely close a ventral midline exploratory laparotomy 1 (2 hrs)</td>
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<td>Perform an ovariohysterectomy in a dog or cat 1 (2 hours)</td>
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62. Place a IV catheter in the common species and secure it
63. Administer SQ fluids to the common species and design a IV fluid administration plan, operation of IV pump and syringe driver
64. Perform a fine needle aspirate and tru-cut biopsy of a subcutaneous mass with creation of cytology slide and Diff Quik staining
65. Write and fill a prescription ensuring all legal responsibilities are met
66. Don personal protection equipment and be able to safely enter and exit an isolation facility to minimize the spread of infectious disease
67. Perform an enzyme immunoassay (SNAP) test
68. Selected review and feedback
69. Selected review and feedback
70. Selected review and feedback

Please note: Clinical skills sessions will be reordered in the schedule to maximize integration with other components of the curriculum and to increase skill retention.

8. Enrollment.
   Expected enrollment: 83
   From which colleges? WCVM

9. Student evaluation.
   Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

   Students will receive formative feedback on their skill development to allow continual refinement of their skills over the duration of the course.

   This is a Pass or Fail course. A random selection of these skills will be selected to be performed by each student using an Objective Structured Clinical Examination format with multiple stations. Students must successfully perform at a competent level ALL stations to receive a pass for this course. Students will be allowed to repeat up to two OSCE examination stations ONCE after which a failure will be registered for the course.

10. Required text: NONE
    Include a bibliography for the course.

11. Resources.
    Proposed instructor: This is a multi-instructor course
    How does the department plan to handle the additional teaching or administrative workload? This course requires a shared workload including all 5 departments in the WCVM
    Are sufficient library or other research resources available for this course? YES
    Are any additional resources required (library, audio-visual, technology, etc.)? NO

12. Date of Implementation:
    To be offered: annually biennially other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject VINT
Course Number 302.5
Term from which this course will become effective: 202109
Month: January May July September Year: 2019

Information Block
What is the academic college or school to which this course belongs? WCVM

What is the department or school that has jurisdiction over this course? WCVM – Dean’s Office

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 5 credit units

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
C – Completed Requirements
   (Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
   (Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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FNAR Fine Arts
HUM Humanities
SCIE Science
SOCS Social Science
ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title  **Veterinary Clinical Skills II**
Course Long Title (maximum 100 characters)
Course Short Title (maximum 30 characters) **Veterinary Clinical Skills II**
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘ “ ; , $ & @ ! ? / + - = % # ]}
**Course Description**

Course Description (please limit to 150 words or less)

This course is designed to provide learning opportunities for veterinary students to master key clinical skills that will form the foundation for their clinical practice as they progress through the veterinary program. Laboratory exercises on models or healthy animals will emphasize hands-on practice of each specific skill.

**Registration Information**

Formerly: **VINT 305.0**

Permission required:

Restriction(s): course only open to students in a specific college, program/degree, major, year in program

**Must be enrolled in year 2 of the DVM program.**

Prerequisite(s): course(s) that must be completed prior to the start of this course

Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course

Corequisite(s): course(s) that must be taken at the same time as this course

Notes: recommended courses, course repeat restrictions/content overlap, other additional course information

Exam Exempt

**Yes  No**

**Equivalent Courses**

Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.

2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

**Mutually-Exclusive Courses**

These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.
Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) VINT 302.5
Catalogue Term Hour Listing (e.g. 3L-2P) 1L – 70P

Additional Notes
New Course Proposal Form

This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue

   2.1 Label & Number of course: VINT 303.1

   2.2 Title of course: Professional Foundations II

   2.3 Total Hours: 12 Lecture Seminar Lab Tutorial Other

   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other – WCVM has an irregular timetable

   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2

   2.6 Prerequisite: Completion of year 1 of the DVM program

   2.7 Calendar description:

   This course is designed to supplement the clinical medical training in the rest of the program by encouraging students to develop a number of “para-professional skills” that are vital to success as a veterinarian.

   2.8 Any additional notes

3. Rationale for introducing this course.

   A successful veterinarian has to be capable of more than basic clinical skills. There are a number of “para-professional skills” that are vital for success. In the past 2 years the American Association of Veterinary Medical Colleges has developed a framework for Competency based Veterinary Education. Competencies 5-9 directly address these para-professional skills. This course is designed to introduce the concepts of para-professional skills and to ensure that the students are meeting the basic competencies at the novice and intermediate level.

4. Learning Objectives for this course.

   Competencies taken from the CBVE Milestones (Novice and intermediate)

5. Impact of this course.

   Are the programs of other departments or Colleges affected by this course? NO
   If so, were these departments consulted? (Include correspondence) YES
   Were any other departments asked to review or comment on the proposal? YES

6. Other courses or program affected (please list course titles as well as numbers).

   Course(s) to be deleted? NO
Course(s) for which this course will be a prerequisite? Required for registration in year 3 of the DVM program
Is this course to be required by your majors, or by majors in another program? YES, DVM

7. Course outline.

<table>
<thead>
<tr>
<th>Lecture #</th>
<th>Title/Content</th>
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<tbody>
<tr>
<td>Intro</td>
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<td>2.</td>
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<td>3.</td>
<td>AHTs</td>
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<td>10.</td>
<td>Inter professional Education</td>
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<tr>
<td>11.</td>
<td>Critical thinking</td>
</tr>
<tr>
<td>12.</td>
<td></td>
</tr>
</tbody>
</table>

8. Enrolment.
Expected enrollment: **83**
From which colleges? WCVM

9. Student evaluation.
Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

**This is a class that will be graded pass/fail based on completion of the student self-assessment assignments that are outlined in Section 5**

10. Required text: **NONE**
Include a bibliography for the course.

11. Resources.
Proposed instructor: **Dr. Chris Clark**
How does the department plan to handle the additional teaching or administrative workload? N/a
Are sufficient library or other research resources available for this course? **YES**
Are any additional resources required (library, audio-visual, technology, etc.)? **NO**

12. Date of Implementation:
To be offered: **annually** biennially other
### SESD: Course Creation Information Form

(version: November, 2015)

To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

### Main Block
- **Subject**: VINT
- **Course Number**: 303
- **Term from which this course will become effective**: 202109
- **Month**: January May July September **Year**: 2021

### Information Block
- **What is the academic college or school to which this course belongs?**: WCVM
- **What is the department or school that has jurisdiction over this course?**: WCVM – Dean's Office
- **If there is a prerequisite waiver, who is responsible for signing it?**
  - D – Instructor/Dept Approval
  - H – Department Approval
  - I – Instructor Approval

- **What is the academic credit unit weight of this course?**: 1 credit unit
- **Is this course supposed to attract tuition charges? If so, how much?** (use tuition category)
- **Does this course require non-standard fees, such as materials or excursion fees?** If so, please include an approved “Application for New Fee or Fee Change Form” ([http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees](http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees))
  - NO
- **Do you allow this course to be repeated for credit?** Yes **No**

- **How should this course be graded?**
  - C – Completed Requirements
    - *(Grade options for instructor: Completed Requirements, Fail, IP In Progress)*
  - N – Numeric/Percentage
    - *(Grade options for instructor: grade of 0% to 100%, IP in Progress)*
P – Pass/Fail  
(Grade options for instructor: Pass, Fail, In Progress)

S – Special  
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

**Schedule Types**
Schedule Types that can be used for sections that fall under this course:  
(Indicate – highlight - all possible choices)

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<tr>
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**Detailed Information**
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

**Course Syllabus**
Long Title  **Professional Foundations II**
Course Long Title (maximum 100 characters) **Professional Foundations II**
Course Short Title (maximum 30 characters) **Professional Foundations II**
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed ['“;:,$&@!?/-=']


Course Description

This course is designed to supplement the clinical medical training in the rest of the program by encouraging students to develop a number of “para-professional skills” that are vital to success as a veterinarian.

Registration Information

Formerly:
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in year 2 of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses

Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

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Mutually-Exclusive Courses

These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.
Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) 303.1
Catalogue Term Hour Listing (e.g. 3L-2P) 12L

Additional Notes
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: Approved by Dr. Chris Clark, Associate Dean (Academic)

2. Information required for the Catalogue

   2.1 Label & Number of course: **VINT 312.1**

   2.2 Title of course: **Veterinary Business II**

   2.3 Total Hours: 12 Lecture Seminar Lab Tutorial Other

   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other

   2.5 Term in which it will be offered: T1 T2 **T1 or T2** T1 and T2

   2.6 Prerequisite: Year 1 of DVM program

   2.7 Calendar description:
   General overview of the business of veterinary medicine. Topics will include a basic introduction to the following topics: veterinary demographics, interest rates, lending (loans/mortgages), investing (stocks/bonds), retirement planning (RRSP/TFSA), financial statements, business structures, contracts, liability, and practice valuation.

   2.8 Any additional notes

3. Rationale for introducing this course.

   The AVMA accreditation body has asked for our changes based on outcomes assessment that consistently revealed limitations with respect to business management. As such, the WCVM Faculty has added decided to add a 1 credit business course in years 1, 2 and 3.
4. Learning Objectives for this course.

By the end of the course, students will be able to:
   1. Apply for a Job
   2. Describe the elements of a veterinary contract
   3. Negotiate a contract
   4. Describe the advantages of a salaried position vs commission based payment
   5. Describe the advantages and types of retirement investments
   6. Describe the differences between working as an associate and being a partner in a practice

5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? NO
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? NO

6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? None
   Course(s) for which this course will be a prerequisite? None
   Is this course to be required by your majors, or by majors in another program? NA

7. Course outline.
   (Weekly outline of lectures or include a draft of the course information sheet.)
   * See attached *

8. Enrolment.
   Expected enrollment: 82
   From which colleges? WCVM

9. Student evaluation.
   Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term
   test, final examination, essays or projects, etc.)

   Assignments – 20%
   Final Exam – 80%

10. Required text: NONE
    Include a bibliography for the course.

11. Resources.
    Proposed instructor: Dr. Jaques Messier
    How does the department plan to handle the additional teaching or administrative workload?
    Are sufficient library or other research resources available for this course?
    Are any additional resources required (library, audio-visual, technology, etc.)?

12. Date of Implementation:
    To be offered: annually  biennially  other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject VINT
Course Number 312.1
Term from which this course will become effective: 202109
Month: January May July September Year: 2021

Information Block
What is the academic college or school to which this course belongs? WCVM

What is the department or school that has jurisdiction over this course? WCVM – Dean’s Office

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 1 credit unit

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes NO

How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)

S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC  No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR  Fine Arts
   HUM   Humanities
   SCIE  Science
   SOCS  Social Science
   ARNP  No Program Type (Arts and Science)

Course Syllabus
Long Title  Veterinary Business II

Course Long Title (maximum 100 characters) Veterinary Business II
Course Short Title (maximum 30 characters) Veterinary Business II

(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘"`;,:$&!/?+-=%#()]
Course Description
Course Description (please limit to 150 words or less)

General overview of the business of veterinary medicine. Topics will include a basic introduction to the following topics: veterinary demographics, interest rates, lending (loans/mortgages), investing (stocks/bonds), retirement planning (RRSP/TFSA), financial statements, business structures, contracts, liability, and practice valuation.

Registration Information
Formerly:
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in year 2 of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

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Catalogue Credit Units (e.g. 110.6) 312.1
Catalogue Term Hour Listing (e.g. 3L-2P) 12L
Additional Notes
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue

   2.1 Label & Number of course: VLAC 315.6
   2.2 Title of course: Animal Production
   2.3 Total Hours: Lecture Seminar Lab Tutorial Other
   2.4 Weekly Hours: Lecture Seminar Lab Tutorial
   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2
   2.6 Prerequisite: Completion of year 1 of the DVM program

   Calendar description:

   Provides a basic foundation of knowledge in the husbandry, nutrition and breeding of the common animal species, featuring the veterinary aspects of the various animal industries and the contemporary role of the veterinarian in servicing them. Concepts of herd management, health and production interactions and the makeup of various animal industries will be emphasized for the various species groups.

   2.8 Any additional notes

3. Rationale for introducing this course.

   It is essential for all veterinarians to be well versed in common animal production systems.

4. Learning Objectives for this course.

   1) Achieve a basic understanding of the various animal industries in Canada.
   2) Achieve a basic knowledge of the various animal production units with an emphasis on:
      - Feeding and nutrition
      - Reproductive management
      - General management and husbandry practices
   3) Provide insight into the potential role of the veterinarian in the production system.
   4) Achieve an understanding of the terminology used in modern production units.
5) Students will be able to explain the reproductive cycles of common domestic animals

Knowledge Domain:

Students should have a basic understanding of:

1) The principles of health maintenance in animal populations, including housing, nutrition, reproductive management and disease prevention.
2) Basic animal management and the role of the veterinarian in the major animal industries in Western Canada.

Skills Domain:

Students should be able to:

1) Communicate effectively with owners, colleagues, consultants and the general public, both orally and in writing.
2) Work effectively with others.

5. Impact of this course.

Are the programs of other departments or Colleges affected by this course? **NO**
If so, were these departments consulted? (Include correspondence)
Were any other departments asked to review or comment on the proposal? **YES**

6. Other courses or program affected (please list course titles as well as numbers).

Course(s) to be deleted? **VLAC 310.3**
Course(s) for which this course will be a prerequisite? **Registration in year 3 of the DVM program**
Is this course to be required by your majors, or by majors in another program? **YES - DVM**

7. Course outline.

7 lectures: Swine Industry
7 lectures: Beef Industry
7 lectures: Dairy Industry
7 lectures: Poultry Industry
7 lectures: Equine Industry
5 lectures: Small Ruminants
3 lectures: Fish Industry
24 lectures: Nutrition
17 lectures: Reproductive physiology
2 midterms

8. Enrollment.

Expected enrollment: **83**
From which colleges? **WCVM**

9. Student evaluation.

Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

There will be 3 midterms:

1 focusing on nutrition
The other 2 will divide the remaining material
Each mid term is worth 20% the final is worth 40%
Note this is a modular course that requires each student to achieve a passing grade (>50%) in every exam. Failure of a module will result in a remedial examination.

10. Required text: None
    Include a bibliography for the course.

11. Resources.
    Proposed instructor: This is a multi-instructor course. Proposed course coordinator is
    How does the department plan to handle the additional teaching or administrative workload? n/a
    Are sufficient library or other research resources available for this course? yes
    Are any additional resources required (library, audio-visual, technology, etc.)? n/a

12. Date of Implementation:
    To be offered: annually biennially other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block

Subject: VLAC
Course Number: 315
Term from which this course will become effective: 202109
Month: January May July September Year: 2021

Information Block

What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? Large Animal Clinical Sciences (VLAC)

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 6 credit units

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) no

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
C – Completed Requirements
(Note: Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC  No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR  Fine Arts
   HUM   Humanities
   SCIE  Science
   SOCS  Social Science
   ARNP  No Program Type (Arts and Science)

Course Syllabus
Long Title  Animal Production
Course Long Title (maximum 100 characters)  Animal Production
Course Short Title (maximum 30 characters)  Animal Production
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed ['“;:, $ & @ ! ? / + - = % (#) ']
Course Description

Course Description (please limit to 150 words or less)

Provides a basic foundation of knowledge in the husbandry, nutrition and breeding of the common animal species, featuring the veterinary aspects of the various animal industries and the contemporary role of the veterinarian in servicing them. Concepts of herd management, health and production interactions and the makeup of various animal industries will be emphasized for the various species groups.

Registration Information

Formerly: VLAC 310.3
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in the 2nd year of the DVM program.
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses

Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses

These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:
Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) 315.6
Catalogue Term Hour Listing (e.g. 3L-2P) 85L

Additional Notes
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue
   
   2.1 Label & Number of course: VLAC 325.1
   
   2.2 Title of course: Public Health for Veterinarians

   2.3 Total Hours: Lecture Seminar Lab Tutorial Other

   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other – WCVM has an irregular timetable

   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2

   2.6 Prerequisite: Completion of year 1 of the DVM program

   2.7 Calendar description:

   This course is intended to introduce veterinary students to what public health is and emphasize how public health is protected in Canada through various activities undertaken by both public and animal health professionals (whether in veterinary practice or other non-practice roles) by using real life examples.

   2.8 Any additional notes

3. Rationale for introducing this course.

   The North American Veterinary Medical Education Consortium (NAVMEC) has included awareness of and competencies relating to “One Health” for all graduating veterinarians in North America. This is also reflected in questions included in the North American Veterinary Licensing exam (NAVLE). The competency reflects a need to understand and actively participate in health promotion, disease prevention and biosecurity, zoonosis and food safety activities. Veterinarians have many key roles in the protection and promotion of public health. This course will provide students with an understanding of the scope and complexity of the topic of public health, as well as the capabilities to effectively meet their responsibilities, regardless of their field of professional activity.

4. Learning Objectives for this course.

   1. To understand what is meant by “health” and “public health”.
   2. To understand how public health is protected in Canada.
   3. To understand specifically the role of veterinarians who work as public health professionals or as practicing veterinarians in contributing to the promotion and protection of public health in Canada.
5. Impact of this course.
Are the programs of other departments or Colleges affected by this course? **NO**
If so, were these departments consulted? (Include correspondence) **YES**
Were any other departments asked to review or comment on the proposal? **YES**

6. Other courses or program affected (please list course titles as well as numbers).
Course(s) to be deleted? n/a
Course(s) for which this course will be a prerequisite? **Registration in year 3 of the DVM program**
Is this course to be required by your majors, or by majors in another program? **YES - DVM**

7. Course outline.

**Topic Area 1 – What is Health, Public Health and Health Promotion?** (3 hours)
- Ottawa Charter for Health Promotion
- Social Determinants of Health (Animal versus Human)
- Local/National/International commitments

**Topic Area 2 – Health Protection** (3 hours)
- Food safety and food protection regulatory framework
- Risk Assessment (can use relevant current topics as examples)
- Public Safety – emergency preparedness and response

**Topic Area 3 – Disease and Injury Prevention** (3 hours)
- Dog Bite prevention – role of public and veterinary health professionals
- Zoonotic Disease prevention or control – intersection of human, public, animal and environmental health
- Immunosuppression and Animal Companionship (Zooeyia versus Zoonosis)

**Topic Area 3 – Health Surveillance** (disease surveillance) (3 hours)
- Public health surveillance in Canada (particularly zoonotic diseases)
- Animal health surveillance in Canada (CFIA, research – with particular reference/links to public health)
- “One Health” and surveillance

**Notes:** This course outline was prepared by Epidemiologists within the College in consultation/collaboration with Public Health Agency of Canada and Canadian Food Inspection Agency personnel. As such, there will be many opportunities for the use of real-life current examples and participation of agency staff to deliver content. As the course is further developed, it will be important to ensure that there is not unproductive overlap with the material in other courses.

8. Enrolment.
Expected enrollment: **83**
From which colleges? **WCVM**

9. Student evaluation.

Single assessment in written format – 100% of mark
- Take home assignment but with limited time frame for completion (no extensions or late submissions accepted)
- Selection from a list of acceptable topic areas which will be provided to the students at the time of the take home assignment
- Only 1 page response allowed (anything over a page is penalized)
• Use of any resources in completing the single assessment but resource list must be submitted in addition to single response page.
• No copying from other students – original work only will be accepted.

10. Required text: None
Include a bibliography for the course.

11. Resources.
Proposed instructor: Dr. Tasha Epp
How does the department plan to handle the additional teaching or administrative workload? n/a
Are sufficient library or other research resources available for this course? yes
Are any additional resources required (library, audio-visual, technology, etc.)? n/a

12. Date of Implementation:
To be offered: annually biennially other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

### Main Block

**Subject**  
VLAC

**Course Number**  
325

Term from which this course will become effective: 202109

Month: January May July September  Year: 2021

### Information Block

What is the academic college or school to which this course belongs?  
WCVM

What is the department or school that has jurisdiction over this course?  
Large Animal Clinical Sciences (VLAC)

If there is a prerequisite waiver, who is responsible for signing it?  
D – Instructor/Dept Approval  
H – Department Approval  
I – Instructor Approval

What is the academic credit unit weight of this course?  
1 credit unit

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)  

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees)  
NO

Do you allow this course to be repeated for credit? Yes  No

How should this course be graded?  
C – Completed Requirements  
(N – Numeric/Percentage  
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)  
NO
P – Pass/Fail

(Grade options for instructor: Pass, Fail, In Progress)

S – Special

(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title Public Health for Veterinarians
Course Long Title (maximum 100 characters) Public Health for Veterinarians
Course Short Title (maximum 30 characters) Public Health for Veterinarians
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [’ “ ; , $ & @ ! ? / + - = % #( ) ]
Course Description
Course Description (please limit to 150 words or less)

This course is intended to introduce veterinary students to what public health is and emphasize how public health is protected in Canada through various activities undertaken by both public and animal health professionals (whether in veterinary practice or other non-practice roles) by using real life examples.

Registration Information
Formerly:
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in year 2 of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

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- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.
Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) 325.1
Catalogue Term Hour Listing (e.g. 3L-2P) 12L

Additional Notes
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue
   2.1 Label & Number of course: VSAC 310.2
   2.2 Title of course: Surgical Principles
   2.3 Total Hours: 24 Lecture Seminar Lab Tutorial Other
   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other – WCVM has an irregular timetable.
   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2
   2.6 Prerequisite: Completion of Year 1 of DVM program
   2.7 Calendar description:

An introduction to the science and pathophysiology of veterinary surgery. Multiple species are used to develop an understanding of the fundamental principles and technical skills associated with the management of surgical conditions.

2.8 Any additional notes

3. Rationale for introducing this course.
   Proficiency in surgery requires a solid understanding of the fundamental principles and basic technical skills.

4. Learning Objectives for this course.

Students should:

1. Understand the mechanisms and pathophysiology of wounding, major trauma, and wound healing.

2. Understand the principles of wound management, drainage, and bandaging

3. Understand the principles of commonly used techniques for wound closure and rationale for their selection.

4. Understand the principles of fracture fixation as it relates to fracture biomechanics, fracture healing, and various common methods for fracture stabilization.
5. Understand the mechanisms of normal coagulation and the principles of hemostasis.

6. Be aware of the principles of aseptic surgery, understand their rationale, and be able to achieve and maintain a sterile field.

5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? NO
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? YES

6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? VINT 405.0
   Course(s) for which this course will be a prerequisite? VINT 580.32
   Is this course to be required by your majors, or by majors in another program? NO

7. Course outline.

   Lectures topics (24 hours):
   - Mechanisms of wounding, wound classification, pathophysiology, and wound healing
   - Early wound management, principles of and options for wound closure
   - Surgical infections and prophylactic antibiotics
   - Needles and suture materials: characteristics and principles of selection
   - Bandages and Drains
   - Adhesions
   - Hemostasis
   - Principles of aseptic technique
   - Principles of atraumatic tissue handling
   - Fracture biomechanics and principle of fracture fixation

8. Enrolment.
   Expected enrollment: 83
   From which colleges? WCVM

9. Student evaluation.

<table>
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<th>Percentage</th>
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<tr>
<td>Midterm exam</td>
<td>40%</td>
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<tr>
<td>Final exam</td>
<td>60%</td>
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10. Required text: **NONE**
   Include a bibliography for the course.

11. Resources.
    Proposed instructor: Multi instructors from VLAC and VSAC.
    How does the department plan to handle the additional teaching or administrative workload? **Shared responsibilities between the department of VLAC and VSAC.**
    Are sufficient library or other research resources available for this course? **YES**
    Are any additional resources required (library, audio-visual, technology, etc.)? **NO**

12. Date of Implementation:
    To be offered:  **annually**  biennially  other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject VSAC
Course Number 310
Term from which this course will become effective: 202109
Month: January May July September Year: 2021

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? Small Animal Clinical Sciences (VSAC)

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 2 credit units

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
Schedule Types

Schedule Types that can be used for sections that fall under this course:
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Detailed Information

What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   - NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   - FNAR Fine Arts
   - HUM Humanities
   - SCIE Science
   - SOCS Social Science
   - ARNP No Program Type (Arts and Science)

Course Syllabus

- Long Title: Surgical Principles
- Course Long Title (maximum 100 characters): Surgical Principles
- Course Short Title (maximum 30 characters): Surgical Principles
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘ “ ; , $ & @ ! ? / + - = # ( ) ]

Course Description
Course Description (please limit to 150 words or less)

An introduction to the science and pathophysiology of veterinary surgery. Multiple species are used to develop an understanding of the fundamental principles and technical skills associated with the management of surgical conditions.

Registration Information
Formerly: VSAC 357.1
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in year 2 of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:
Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

**Information For Display In The Catalogue Only**
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php

Catalogue Credit Units (e.g. 110.6) VSAC 310.2

Catalogue Term Hour Listing (e.g. 3L-2P) 24 L

**Additional Notes**
New Course Proposal Form

This form can be used by any college which does not already have a course proposal form.

Basic information about the proposed course:

1. Department: Small Animal Clinical Sciences      College: Western College of Veterinary Medicine
2. Signature of department head or dean:
3. Information required for the Calendar:
   3.1 Label & Number of course: VSAC 315.1
   3.2 Title of course: Introduction to veterinary medical imaging
   3.3 Total Hours: Lecture 12 Seminar 0 Lab 0 Tutorial 0 Other 0
   3.4 Weekly Hours: Lecture Seminar Lab Tutorial Other
   3.5 Term in which it will be offered: __T1  __T2  __T1 or T2  __T1 and T2
   3.6 Prerequisite:
   3.7 Calendar description:
   An introductory course on veterinary medical imaging focusing on the physics of medical imaging, radiation safety, image acquisition and an understanding of normal radiographic anatomy.
   3.8 Any additional notes

4. Rationale for introducing this course.

We are moving the main medical imaging course to 3rd year to align it with the content in the medical and surgical courses. This gives us an opportunity to create a course to bridge the content in anatomy (1st year) with the 3rd year content. This course also provides an opportunity to address radiographic anatomy, a weakness that was identified in our curriculum review.

5. Learning Objectives for this course.

   1. Students will be able to describe and demonstrate practices to reduce exposure of themselves, staff and the patient to ionizing radiation
   2. Students will be able to position an animal to achieve diagnostic images of routine radiographic views.
   3. Students will be able to identify normal radiographic anatomy
6. Impact of this course. 
Are the programs of other departments or Colleges affected by this course? No 
If so, were these departments consulted? (attach correspondence) 
Were any other departments asked to review or comment on the proposal? 

7. Other courses or program affected (please list course titles as well as numbers). 
Course(s) to be deleted? 

Course(s) for which this course will be a prerequisite? 3rd year of the DVM program 

Is this course to be required by your majors, or by majors in another program? N/A 

8. Course outline. 
(Weekly outline of lectures or attach a draft of the course information sheet.) 

1. The physics of X-ray imaging 
2. Radiological safety 
3. Thorax 1 
4. Thorax 2 
5. Abdomen 1 
6. Abdomen 2 
7. Appendicular musculoskeletal system 1 
8. Appendicular musculoskeletal system 2 
9. Axial musculoskeletal system 
10. Equine Musculoskeletal system 
11. Space 
12. Space 

Expected enrollment: 78 
From which colleges? WCVM 

10. Student evaluation. 
Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.) 

The content of the lectures will be assessed through a 3hr final examination (100%). There will also be regular self-assessment cases for the students to monitor their progress through the course. 

The content of the laboratory sessions (Clinical Skills Course) will be assessed as part of the end of year OSCE examination. 

11. Required text: 
Attach a bibliography for the course.
12. Resources.  
Proposed instructor: Drs. Starrak, Tryon, Sukut  
How does the department plan to handle the additional teaching or administrative workload? Sl. increase  

Are sufficient library or other research resources available for this course? Yes  

Are any additional resources required (library, audio-visual, technology, etc.)? No  

13. Date of Implementation: Sept 2021 ________________  
To be offered: _X_ annually __biennially __other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject: VSAC
Course Number: 315
Term from which this course will become effective: 202109
Month: January May July September Year: 2021

Information Block
What is the academic college or school to which this course belongs? WCVM

What is the department or school that has jurisdiction over this course? Small Animal Clinical Sciences (VSAC)

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 1 credit unit

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
C – Completed Requirements
   (Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.  
   NOAC   No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR   Fine Arts
   HUM    Humanities
   SCIE   Science
   SOCS   Social Science
   ARNP   No Program Type (Arts and Science)

Course Syllabus
Long Title  Introduction to veterinary medical imaging
Course Long Title (maximum 100 characters) Introduction to veterinary medical imaging
Course Short Title (maximum 30 characters) Intro to Med. Imaging
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [“ ; , $ & ! ? / + - % #( )]
Course Description
Course Description (please limit to 150 words or less)

An introductory course on veterinary medical imaging focusing on the physics of medical imaging, radiation safety, image acquisition and an understanding of normal radiographic anatomy.

Registration Information
Formerly: VSAC 362.2
Permission required: Must be enrolled in year 2 of the DVM program
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
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- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.
Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6)  315.1
Catalogue Term Hour Listing (e.g. 3L-2P)  12L

Additional Notes
New Course Proposal Form

This form can be used by any college which does not already have a course proposal form.

Basic information about the proposed course:

1. Department: Small Animal Clinical Sciences      College: Western College of Veterinary Medicine
2. Signature of department head or dean:
3. Information required for the Calendar:

3.1  Label & Number of course: **VSAC 315.1**

3.2  Title of course: **Introduction to veterinary medical imaging**

3.3  Total Hours:  Lecture 12  Seminar 0  Lab 0  Tutorial 0  Other 0

3.4  Weekly Hours:  Lecture  Seminar  Lab  Tutorial  Other

3.5  Term in which it will be offered:  ___T1  ___T2  ___T1 or T2  ___T1 and T2

3.6  Prerequisite:

3.7  Calendar description:

An introductory course on veterinary medical imaging focusing on the physics of medical imaging, radiation safety, image acquisition and an understanding of normal radiographic anatomy.

3.8  Any additional notes

4.  **Rationale for introducing this course.**

We are moving the main medical imaging course to 3rd year to align it with the content in the medical and surgical courses. This gives us an opportunity to create a course to bridge the content in anatomy (1st year) with the 3rd year content. This course also provides an opportunity to address radiographic anatomy, a weakness that was identified in our curriculum review.

5.  **Learning Objectives for this course.**

1. Students will be able to describe and demonstrate practices to reduce exposure of themselves, staff and the patient to ionizing radiation
2. Students will be able to position an animal to achieve diagnostic images of routine radiographic views.
3. Students will be able to identify normal radiographic anatomy
6. Impact of this course.
Are the programs of other departments or Colleges affected by this course? No

If so, were these departments consulted? (attach correspondence)

Were any other departments asked to review or comment on the proposal?

7. Other courses or program affected (please list course titles as well as numbers).
Course(s) to be deleted?

Course(s) for which this course will be a prerequisite? 3rd year of the DVM program

Is this course to be required by your majors, or by majors in another program? N/A

8. Course outline:
(Weekly outline of lectures or attach a draft of the course information sheet.)

1. The physics of X-ray imaging
2. Radiological safety
3. Thorax 1
4. Thorax 2
5. Abdomen 1
6. Abdomen 2
7. Appendicular musculoskeletal system 1
8. Appendicular musculoskeletal system 2
9. Axial musculoskeletal system
10. Equine Musculoskeletal system
11. Space
12. Space

Expected enrollment: 78
From which colleges? WCVM

10. Student evaluation:
Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

The content of the lectures will be assessed through a 3hr final examination (100%). There will also be regular self-assessment cases for the students to monitor their progress through the course.

The content of the laboratory sessions (Clinical Skills Course) will be assessed as part of the end of year OSCE examination.

11. Required text:
Attach a bibliography for the course.
12. Resources.
Proposed instructor: Drs. Starrak, Tryon, Sukut

How does the department plan to handle the additional teaching or administrative workload? Sl. increase

Are sufficient library or other research resources available for this course? Yes

Are any additional resources required (library, audio-visual, technology, etc.)? No

13. Date of Implementation: Sept 2021 ________________
To be offered:  ___X_annually  ___biennially  ___other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject
Course Number
Term from which this course will become effective: 202109
Month: January May July September Year: 2021

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? Small Animal Clinical Sciences (VSAC)
If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval
What is the academic credit unit weight of this course? 3 credit unit
Is this course supposed to attract tuition charges? If so, how much? (use tuition category)
Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO
Do you allow this course to be repeated for credit? Yes No
How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
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(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title Diagnostic Medicine
Course Long Title (maximum 100 characters) Diagnostic Medicine
Course Short Title (maximum 30 characters) Diagnostic Medicine
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed ['“ ; : $ & @ ! ? / + - = % # ( ) ']
Course Description
Course Description (please limit to 150 words or less)

A series of lectures and laboratories dealing with clinical examinations of the domestic animal species, localizing disease within a body system based on the clinical exam, exploring the diagnostic techniques available for patient evaluation and using the problem oriented approach to making a diagnosis. Emphasis will be placed on the importance of taking an accurate history and performing a thorough physical examination and on comparative aspects of clinical examination.

Registration Information
Formerly: VSAC 376.3
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
**Must be enrolled in year 2 of the DVM program**
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
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Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SIRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:
Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

**Information For Display In The Catalogue Only**
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php

Catalogue Credit Units (e.g. 110.6) 320.3

Catalogue Term Hour Listing (e.g. 3L-2P) 38L

**Additional Notes**
Course Change Proposal Form

Course Change Proposal

Basic information about the course change

1. Department: Veterinary Pathology

2. Course: VTPA 346.3

3. Information required for the Calendar:

Title of course:

Total Hours:

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<td></td>
<td>Tutorial</td>
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<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

Restrictions: Must be enrolled in the 2nd year of the DVM program

Calendar description:

A case-based course designed to attain proficiency in the interpretation of laboratory findings and integration of these with historical and physical findings in order to diagnose disease. The format includes self-study, interactive lectures and case discussions, and applied laboratory techniques.

4. Reason for change:

The additional time will allow for more cytology labs which our outcomes surveys have identified as an important skill in entry level veterinarians.

_________________________________________  ____________________________________
Department Head Signature                  Faculty Signature

_________________________________________  ____________________________________
Date                                      Date

(Please submit to WCVM Student Services, Rm 4117, for final approval)
Course Change Proposal Form

Course Change Proposal

Basic information about the course change

1. Department: Veterinary Microbiology

2. Course: VTMC 336

3. Information required for the Calendar:

   Title of course: Veterinary Neuroscience

   Total Hours:

   \[ \begin{array}{ll}
   \_26\_ & \text{Lecture} \\
   \_16\_ & \text{Lab} \\
   \_ & \text{Seminar} \\
   \_ & \text{Tutorial} \\
   \_ & \text{Other} \\
   \end{array} \]

   Restrictions:

   Calendar description:

4. Reason for change:

   To align the course calendar with the current course delivery.

_________________________________________  ______________________________________
Department Head Signature                Faculty Signature

_________________________________________  ______________________________________
Date                                     Date

(Please submit to WCVM Student Services, Rm 4104.2, for final approval)
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue

   2.1 Label & Number of course: VINT 402.5

   2.2 Title of course: Veterinary Clinical Skills III

   2.3 Total Hours: 1 Lecture  Seminar 70 Lab  Tutorial  Other

   2.4 Weekly Hours: Lecture  Seminar  Lab  Tutorial

   Other – WCVM has an irregular timetable.

   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2

   2.6 Prerequisite: Completion of Year 2 of DVM program

   2.7 Calendar description:

   This course is designed to provide learning opportunities for veterinary students to master key clinical skills that will form the foundation for their clinical practice as they progress through the veterinary program. Laboratory exercises on models or healthy animals will emphasize hands-on practice of more advanced clinical skills. Case simulations will facilitate integration of veterinary knowledge, technical and professional skills using conditions commonly encountered in veterinary practice.

   2.8 Any additional notes

3. Rationale for introducing this course.

   A successful veterinarian must be able to perform a number of clinical skills in order to deliver veterinary care in a safe and effective manner. This course is designed to provide learning opportunities for students to learn and master these foundational clinical skills so as they progress through their professional career they may perform them on veterinary patients competently and confidently in a manner that maximizes patient and personal safety. This will build on the skills mastered in year 1 and 2 focusing on integration of knowledge and skills with clinical reasoning, communications and practicalities of case management.

4. Learning Objectives for this course.

   1. Perform an epidural in the common species as appropriate

   2. Perform common nerve blocks used for analgesia and diagnostics in the common species
3. Perform narcotic record keeping ensuring legal responsibilities are met.

4. Assess and score the pain of an animal recovering from a surgical procedure and develop an appropriate analgesia plan.

5. Place a nasal oxygen line in dog and cat.

6. Place a nasogastric tube in dog and cat.

7. Place an esophageal feeding tube in a dog and cat.


9. Perform a thoracocentesis and inset a chest tube in a dog and cat.


11. Palpate the peripheral lymph nodes and perform a lymph node aspirate.

12. Perform an enucleation in the dog and cat.


14. Perform the repair of an eyelid laceration.

15. Extract the wolf teeth from a horse.

16. Be able to perform euthanasia in the common species and provide advice for appropriate disposal.

17. Examine and trim the hoof of a cow.

18. Have a working knowledge of a milking machine and be able to collect a milk sample and perform a California Mastitis Test.

19. Perform a series of case simulations involving collecting a pertinent history from a client, performing a complete physical examination or herd visit, performing and interpreting appropriate diagnostic tests, discussing the diagnosis with the client and obtain informed consent, performing the simulated management of the medical or surgical condition on a series of common conditions observed in a variety of species in general practice. This will be a combination of core (all species) and elective to maximize the experiential learning.

5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? **NO**
   If so, were these departments consulted? (Include correspondence)  
   Were any other departments asked to review or comment on the proposal? **YES**
6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? **VINT 405.0**
   Course(s) for which this course will be a prerequisite? **VINT 580.32**
   Is this course to be required by your majors, or by majors in another program? **NO**

7. Course outline.

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Epidurals</td>
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<tr>
<td>Nerve blocks (SA anesthesia)</td>
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<tr>
<td>LA epidurals</td>
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<td>Narcotic record keeping</td>
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<td>Pain assessment and scoring/analgesia plan</td>
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<td>Nasal O2/ NG tube/E-tube</td>
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<tr>
<td>T-fast/A-fast</td>
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<td>Thoracocentesis/chest tube</td>
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<td>CPR 1</td>
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<td>CPR 2</td>
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<td>Lymph node aspirate</td>
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<td>Entropion</td>
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<td>Eyelid repair (mass/laceration)</td>
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<tr>
<td>Wolf teeth extraction (model)</td>
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<td>LA euthanasia techniques/disposal advice</td>
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<td>SA euthanasia</td>
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<tr>
<td>Exam and trimming of bovine feet</td>
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<tr>
<td>Case scenarios based on common practice conditions (diagnostics, management with skill incorporation) (2-4 hours depending on case)</td>
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<tr>
<td>Case 1</td>
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<td>Case 9</td>
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Please note: Clinical skills sessions will be reordered to maximize integration with other components of the curriculum and to increase skill retention.

Please note: Clinical Simulations will be developed based on common or important clinical conditions managed in small and large animal practice. Students will work through the case and perform skills as required for the management of the case from beginning to end. Species and duration of time assigned will vary with the individual simulation and its specific learning objectives. Examples may include acute abdomen, mastitis, urinary obstruction, trauma, disease investigation, etc. with the goal to integrating knowledge and clinical skills, clinical reasoning, principles of medical record keeping and financial

8. Enrolment.
   Expected enrollment: 83
   From which colleges? WCVM

9. Student evaluation.
   Students will receive formative feedback on their skill development to allow continual refinement of their skills over the duration of the course.

   This is a Pass or Fail course. A random selection of these skills will be selected to be performed by each student using an Objective Structured Clinical Examination format with multiple stations. Students must
successfully perform at a competent level ALL stations to receive a pass for this course. Students will be allowed to repeat up to two individual OSCE examination stations ONCE after which a failure will be registered for the course.

10. Required text: **NONE**
Include a bibliography for the course.

11. Resources.
Proposed instructor: **Multi instructor from VLAC and VSAC.**
How does the department plan to handle the additional teaching or administrative workload? **Shared responsibilities between the department of VLAC and VSAC.**
Are sufficient library or other research resources available for this course? **YES**
Are any additional resources required (library, audio-visual, technology, etc.)? **NO**

12. Date of Implementation:
To be offered: **annually**  **biennially**  **other**
SESD: Course Creation Information Form

(version: November, 2015)

To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject VINT
Course Number 402.5
Term from which this course will become effective: 202209
Month: January May July September  Year: 2022

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? WCVM – Dean’s Office
If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval
What is the academic credit unit weight of this course? 5 credit unit
Is this course supposed to attract tuition charges? If so, how much? (use tuition category) NO

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes  NO

How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course:

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. **For the College of Arts and Science only:** To which program type does this course belong?
   
   **FNAR**  Fine Arts
   **HUM**  Humanities
   **SCIE**  Science
   **SOCS**  Social Science
   **ARNP**  No Program Type (Arts and Science)

Course Syllabus
Long Title  **Veterinary Clinical Skills III**
Course Long Title (maximum 100 characters) **Veterinary Clinical Skills III**
Course Short Title (maximum 30 characters) **Veterinary Clinical Skills III**
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed ['“ ; , $ & @ ! ? / + - = % {}'])
Course Description
This course is designed to provide learning opportunities for veterinary students to master key clinical skills that will form the foundation for their clinical practice as they progress through the veterinary program. Laboratory exercises on models or healthy animals will emphasize hands-on practice of more advanced clinical skills. Case simulations will facilitate integration of veterinary knowledge, technical and professional skills using conditions commonly encountered in veterinary practice.

Registration Information
Formerly: VINT 405.0
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in year 3 of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:
Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) 402.5
Catalogue Term Hour Listing (e.g. 3L-2P) 1L-70P

Additional Notes
New Course Proposal Form

This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: Approved by Dr. Chris Clark, Associate Dean (Academic)

2. Information required for the Catalogue

   2.1 Label & Number of course: VINT 412.1
   2.2 Title of course: Veterinary Business III
   2.3 Total Hours: 12 Lecture 12 Seminar Lab Tutorial Other
   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other
   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2
   2.6 Prerequisite: Year 2 of DVM program
   2.7 Calendar description:
      The course will build on material presented in the 2nd year Business course. The course will emphasize the management of a veterinary practice
   2.8 Any additional notes

3. Rationale for introducing this course.

   A successful veterinarian has to be capable of more than basic clinical skills. There are a number of "para-professional skills" that are vital for success. In the past 2 years the American Association of Veterinary Medical Colleges has developed a framework for Competency based Veterinary Education. Competencies 5-9 directly address these para-professional skills. This course is designed to introduce the concepts of para-professional skills and to ensure that the students are meeting the basic competencies at the novice and intermediate level.
4. **Learning objectives – Competencies taken from the CBVE Milestones (Novice and intermediate)**

By the end of the course, students will be able to:
- Describe cash flows in a practice
- Read a balance sheet
- Describe the difference between a typical partnership and corporate practice ownership
- Describe what a professional corporation is

5. **Impact of this course.**

Are the programs of other departments or Colleges affected by this course? **No**

If so, were these departments consulted? (Include correspondence) **No**

Were any other departments asked to review or comment on the proposal? **No**

6. **Other courses or program affected (please list course titles as well as numbers).**

Course(s) to be deleted? **None**

Course(s) for which this course will be a prerequisite? **None**

Is this course to be required by your majors, or by majors in another program? **NA**

7. **Course outline.**

(Weekly outline of lectures or include a draft of the course information sheet.)

- **Finances and accounting 4 hours:**
  - Use an accounting system that captures all financial transactions on a timely basis – critical components include a veterinary-specific chart of accounts and appropriate internal controls to ensure accurate information as well as reduce the risk of loss
  - Follow a budget to help guide financial and operational decisions and plan for equipment purchase/replacement
  - Routinely monitor cash flow
  - Review financial statements and metrics monthly
  - Assess true operating profitability at least annually
  - Maintain a fee schedule consistent with the cost and value of the services provided and the market being served

- **Laws and ethics 3 hrs**
  - Ensure practice owners, employees and contractors follow local ordinances, state/provincial laws and federal regulations applicable to conducting business in its area, including administrative regulations affecting the practice of veterinary medicine
  - Clearly communicate and enforce legally compliant confidentiality and privacy policies
  - Adhere to the principles of veterinary medical ethics
  - Keep updated, accurate, and compliant records
  - Ensure handbooks, contracts, client consent forms, and other binding documents are reviewed by an attorney

- **Marketing and Communications 3 hrs**
  - Create and follow a marketing plan consistent with its brand and culture that attracts and retains its ideal client
  - Confidently communicate the value of the service provided in a manner that supports the fees charged
  - Have an attractive facility with a clearly visible sign that reflects its brand and culture
  - Employ marketing activities that reflect pet owner preferences, current technology and social media trends
  - Have a current, engaging, mobile-optimized website that is a robust educational resource for pet owners
Participate in and promote community outreach programs
Actively monitor the practice’s online reputation and manage responses when appropriate
Have an effective reminder system that uses communication methods preferred by clients. Measure the effectiveness of marketing activities

Human Resources 2 hrs
Be the employer of choice by maintaining a competitive compensation and benefits package and by providing a desirable workplace environment
Provide employees with a clear description of their job duties and responsibilities including their reporting relationships
Use a standardized and effective system for recruiting, hiring, on-boarding, and orientation. Create and update an employee manual containing all workplace policies and provide to all employees with receipt acknowledged; legal review is essential
Regularly provide coaching, training, continuing education, and mentoring to the practice’s team members
Cultivate an environment that regularly recognizes and rewards outstanding performance
Have a consistent and unbiased system for providing all employees with performance feedback and opportunities for growth
Acknowledge that practice team members may need support and professional resources for stressors such as compassion fatigue and substance abuse
Utilize a disciplinary process to accurately communicate and document poor performance, counsel the employee, and if necessary, terminate employment

8. Enrolment.
   Expected enrollment: 82
   From which colleges? WCVM

9. Student evaluation.
   Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

   The first portion of the class will be based on assignments.
   The Business portion will be assessed as follows:

   Assignments – 50%
   Final Exam – 50%

10. Required text: NONE
    Include a bibliography for the course.

11. Resources.
    Proposed instructor: 1st portion varied, 2nd portion Dr. Jacques Messier
    How does the department plan to handle the additional teaching or administrative workload? n/a
    Are sufficient library or other research resources available for this course? n/a
    Are any additional resources required (library, audio-visual, technology, etc.)? n/a

12. Date of Implementation:
    To be offered: annually biennially other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject: VINT
Course Number: 412.1
Term from which this course will become effective: 202209
   Month: January May July   September   Year: 2022

Information Block
What is the academic college or school to which this course belongs? WCVM

What is the department or school that has jurisdiction over this course? WCVM – Dean’s Office

If there is a prerequisite waiver, who is responsible for signing it?
   D – Instructor/Dept Approval
   H – Department Approval
   I – Instructor Approval

What is the academic credit unit weight of this course? 1 credit unit

Is this course supposed to attract tuition charges? If so, how much? (use tuition category) N/A

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
   C – Completed Requirements
      (Grade options for instructor: Completed Requirements, Fail, IP In Progress)
   N – Numeric/Percentage
      (Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
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Schedule Types that can be used for sections that fall under this course:
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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title Veterinary Business III
Course Long Title (maximum 100 characters) Veterinary Business III
Course Short Title (maximum 30 characters) Veterinary Business III
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [‘ “ ; : $ & ! ? / + - = % # ( ) ]
Course Description

Course Description (please limit to 150 words or less)

The course will build on material presented in VINT 312.1, Veterinary Business II. The course will emphasize the management of a veterinary practice.

Registration Information

Formerly: VINT 411.2
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in year 3 of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses

Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses

These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.
Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) 412.1
Catalogue Term Hour Listing (e.g. 3L-2P) 12L

Additional Notes
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue

   2.1 Label & Number of course: VLAC 415.5

   2.2 Title of course: Food Animal Production Medicine

   2.3 Total Hours: 54 Lecture Seminar Lab Tutorial Other

   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other – WCVM has an irregular timetable

   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2

   2.6 Prerequisite: Completion of year 2 of the DVM program

   2.7 Calendar description:

   A series of lectures that deal with the specific diseases of domestic agricultural animals (cattle, sheep, goats, pigs and poultry). Emphasizes the etiology, epidemiology, pathogenesis, clinical and laboratory findings, diagnosis, treatment and control of the common diseases which occur in domestic farm animals. Some lectures deal with the important exotic diseases that are potential treats to the livestock industry.

   2.8 Any additional notes

3. Rationale for introducing this course.

   The course is designed to provide veterinary students with the core requirement of information pertaining to the diagnosis, treatment, prevention and control of diseases and conditions of the main food producing species seen in Canadian agriculture.

4. Learning Objectives for this course.

   Knowledge Domain

   Primary Objectives

   Students should have a basic understanding of:

   1. The basic genetic, developmental, biochemical, pathophysiologic, toxicological, microbial and environmental mechanisms underlying common and/or important diseases affecting food animal species.

   2. The manifestations, diagnosis, treatment, prevention and control of common and/or important diseases affecting food animals.

   3. The epidemiology, immunology, prevention, and control of common and/or infectious disease agents affecting animals.
4. The principles of health maintenance in animal populations, including housing, nutrition, reproductive management, and disease prevention.

**Secondary Objectives**

1. Mechanisms of drug action and other pharmacological principles relevant to making therapeutic decisions in veterinary medicine.
2. The principles of public and environmental health, including the prevention and control of zoonotic diseases.
3. Basic animal management and the role of the veterinarian in the major animal industries in western Canada.
4. The basic epidemiologic methods and statistical principles underlying evidence-based medicine.
5. The ethical principles and obligations of the veterinary profession.

**Skills Domain**

Students should be able to:

1. Interpret historical, physical examination, laboratory and radiological findings to diagnose common and/or important diseases of the common food animal species.
2. Interpret disease in the context of the population and the environment.
3. Recognize diseases with important population or public health implications and interact with the appropriate authorities when necessary.

5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? **NO**
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? **YES**

6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? **VLAC 482.5**
   Course(s) for which this course will be a prerequisite? **VINT 580.32**
   Is this course to be required by your majors, or by majors in another program? **NO**

7. Course outline.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Subject</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonatal animals</td>
<td>Pathophysiology of diarrhea</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Neonatal scours</td>
<td>E.coli, Rota, Corona, Crypto, Salmonella</td>
</tr>
<tr>
<td>2</td>
<td>Fluid therapy for calves</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Control of scours</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Septicaemia</td>
<td>Menigitis, Polyarthritis, peritonitis</td>
</tr>
<tr>
<td>5</td>
<td>Navel disease</td>
<td>Hernias and navel ill</td>
</tr>
<tr>
<td>6</td>
<td>White Muscle disease</td>
<td>Vit E and selenium deff</td>
</tr>
<tr>
<td></td>
<td>Enzootic pneumonia</td>
<td>Etiology, Epi, clin signs, dx, tx Cx, Vacc</td>
</tr>
<tr>
<td>---</td>
<td>-------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>8</td>
<td>Castration and dehorning</td>
<td>Techniques and ages</td>
</tr>
<tr>
<td>9</td>
<td>Skin diseases of young</td>
<td>BPS, orf, ringworm, warts, Calf diptheria</td>
</tr>
<tr>
<td><strong>Post partum animals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Mastitis</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Mastitis</td>
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<tr>
<td>12</td>
<td>Mastitis</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Mastitis</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Mastitis</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>GI problems</td>
<td>LDA, RDA, RTA, cecum, abomasal ulceration</td>
</tr>
<tr>
<td>16</td>
<td>Bov GI surgery</td>
<td>Exploratory laparotomy</td>
</tr>
<tr>
<td>17</td>
<td>Bov GI surgery</td>
<td>Abomasal surgeries</td>
</tr>
<tr>
<td>18</td>
<td>Milk fever</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Ketosis</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Retained placenta / metritis</td>
<td></td>
</tr>
<tr>
<td><strong>Diseases at pasture</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Bloat</td>
<td>Free, frothy, rumen collapse</td>
</tr>
<tr>
<td>22</td>
<td>Diarrhea in pasture calves</td>
<td>Coccidiosis, Copper def, parasites</td>
</tr>
<tr>
<td>23</td>
<td>Neuro dz</td>
<td>Lead, polio, sulfate</td>
</tr>
<tr>
<td>24</td>
<td>Sudden Death</td>
<td>Anthrax/clost</td>
</tr>
<tr>
<td>25</td>
<td>Sudden Death</td>
<td>Antrax/clost</td>
</tr>
<tr>
<td>26</td>
<td>Hematuria and hemaglobinuria</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Hemorrhagic syndromes, anemia</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Grass tetany</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>AIP</td>
<td>ABPEE, Lung worm</td>
</tr>
<tr>
<td>30</td>
<td>Abomasal ulcers</td>
<td></td>
</tr>
<tr>
<td><strong>Feedlot</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Pneumonia</td>
<td>BRD</td>
</tr>
<tr>
<td>32</td>
<td>Pneumonia</td>
<td>Mycoplasma</td>
</tr>
<tr>
<td>33</td>
<td>Pneumonia</td>
<td>IBR</td>
</tr>
<tr>
<td>34</td>
<td>Carbohydrate overload</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Water belly</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Neuro</td>
<td>Vit A /ITEME</td>
</tr>
<tr>
<td><strong>Adult animals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>TRP, vagal indig.</td>
<td></td>
</tr>
<tr>
<td>Page</td>
<td>Condition</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>38</td>
<td>Peritonitis</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>FMD</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Diarrhea in adult cattle</td>
<td>Johnes</td>
</tr>
<tr>
<td>40</td>
<td>Diarrhea in adult cattle</td>
<td>Salmonella, Winter dysentery</td>
</tr>
<tr>
<td>41</td>
<td>Facial swelling</td>
<td>Lumpy jaw and wooden tongue, abscesses</td>
</tr>
<tr>
<td>42</td>
<td>Beef lameness</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Dairy lameness</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Leukosis</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>BSE</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Sheep neuro</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Skin diseases</td>
<td></td>
</tr>
</tbody>
</table>

**Swine**

<table>
<thead>
<tr>
<th>Page</th>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>GI diseases: neonatal pigs</td>
<td>Enterotoxigenic E. coli (ETEC) Transmissible gastroenteritis (TGE)</td>
</tr>
<tr>
<td>49</td>
<td>GI diseases: grow-finish pigs</td>
<td>Necroproliferative enteritis (Lawsonia intracellularis) Swine dysentery (Brachyspira hyodysenteriae)</td>
</tr>
<tr>
<td>50</td>
<td>Respiratory diseases</td>
<td>Mycoplasma hyopneumoniae (MH) Swine Influenza (SIV)</td>
</tr>
<tr>
<td>51</td>
<td>Respiratory diseases</td>
<td>Actinobacillus pleuropneumoniae (APP) Progressive atrophic rhinitis (PAR)</td>
</tr>
<tr>
<td>52</td>
<td>Multisystemic bacterial diseases</td>
<td>Streptococcus suis (Ss) Erysipelothrix rhusiopathiae (erysipelas) Haemophilus parasuis (HPS)</td>
</tr>
<tr>
<td>53</td>
<td>Multisystemic viral diseases</td>
<td>Porcine Circovirus (PCV2)</td>
</tr>
<tr>
<td>54</td>
<td>Multisystemic viral diseases</td>
<td>Porcine Reproductive &amp; Respiratory Syndrome (PRRS)</td>
</tr>
<tr>
<td>55</td>
<td>Reproductive diseases</td>
<td>Leptospirosis Porcine parvovirus (PPV)</td>
</tr>
<tr>
<td>56</td>
<td>Skin diseases</td>
<td>Exudative epidermitis Sarcoptic mange Pityriasis rosea</td>
</tr>
<tr>
<td>57</td>
<td>Foreign Animal</td>
<td>Pseudorabies (PRV)</td>
</tr>
</tbody>
</table>
8. Enrolment.
   Expected enrollment: 83
   From which colleges? WCVM

9. Student evaluation.
   Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term
   test, final examination, essays or projects, etc.)
   Students will be evaluated on the basis of written examinations. There will be one mid-term examination
   and a final exam. The mid-term examination will each be worth 40% and the final 60%.

10. Required text: None
    Include a bibliography for the course.

11. Resources.
    Proposed instructor: This is a multi-instructor course. Proposed course coordinator is Dr. Fabienne
    Uehlinger
    How does the department plan to handle the additional teaching or administrative workload? n/a
    Are sufficient library or other research resources available for this course? n/a
    Are any additional resources required (library, audio-visual, technology, etc.)? n/a

12. Date of Implementation:
    To be offered: annually biennially other

---

<table>
<thead>
<tr>
<th>Poultry</th>
<th>Diseases</th>
<th>Classical Swine Fever (CSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Respiratory diseases</td>
<td>Avian Influenza, Newcastle Disease</td>
</tr>
<tr>
<td>58</td>
<td>Diseases of the immune system</td>
<td>Infectious Bursal Disease, Chicken Infectious Anemia</td>
</tr>
<tr>
<td>59</td>
<td>Food safety</td>
<td>Salmonellosis, Campylobacteriosis</td>
</tr>
<tr>
<td>60</td>
<td>Small farm flocks</td>
<td>Nutritional Diseases</td>
</tr>
<tr>
<td>61</td>
<td>Neoplasia</td>
<td>Marek’s disease, Avian leukemia</td>
</tr>
</tbody>
</table>
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject: VLAC
Course Number: 415
Term from which this course will become effective: 202209
Month: January May July September Year: 2022

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? Large Animal Clinical Sciences (VLAC)
If there is a prerequisite waiver, who is responsible for signing it? D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval
What is the academic credit unit weight of this course? 5 credit units
Is this course supposed to attract tuition charges? If so, how much? (use tuition category) N/A
Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) no
Do you allow this course to be repeated for credit? Yes No
How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>Clinical</td>
<td>PRB</td>
<td>Problem Session</td>
</tr>
<tr>
<td>COO</td>
<td>Coop Class</td>
<td>RDG</td>
<td>Reading Class</td>
</tr>
<tr>
<td>FLD</td>
<td>Field Trip</td>
<td>RES</td>
<td>Research</td>
</tr>
<tr>
<td>ICR</td>
<td>Internet Chat Relay</td>
<td>ROS</td>
<td>Roster (Dent Only)</td>
</tr>
<tr>
<td>IHP</td>
<td>Internet Help</td>
<td>SEM</td>
<td>Seminar</td>
</tr>
<tr>
<td>IN1</td>
<td>Internship - Education</td>
<td>SSI</td>
<td>Supervised Self Instruction</td>
</tr>
<tr>
<td>IN2</td>
<td>Internship - CMPT &amp; EPIP</td>
<td>STU</td>
<td>Studio</td>
</tr>
<tr>
<td>IN3</td>
<td>Internship - General</td>
<td>SUP</td>
<td>Teacher Supervision</td>
</tr>
<tr>
<td>IND</td>
<td>Independent Studies</td>
<td>TEL</td>
<td>Televised Class</td>
</tr>
<tr>
<td>LAB</td>
<td>Laboratory</td>
<td>TUT</td>
<td>Tutorial</td>
</tr>
<tr>
<td>LC</td>
<td>Lecture/Clinical (Dent Only)</td>
<td>WEB</td>
<td>Web Based Class</td>
</tr>
<tr>
<td>LEC</td>
<td>Lecture</td>
<td>XCH</td>
<td>Exchange Program</td>
</tr>
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<td>LL</td>
<td>Lecture/Laboratory (Dent Only)</td>
<td>XGN</td>
<td>Ghost Schedule Type Not Applicable</td>
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<td>MM</td>
<td>Multimode</td>
<td>XHS</td>
<td>High School Class</td>
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<tr>
<td>PCL</td>
<td>Pre-Clinical (Dent Only)</td>
<td>XNA</td>
<td>Schedule Type Not Applicable</td>
</tr>
<tr>
<td>PRA</td>
<td>Practicum</td>
<td>XNC</td>
<td>No Academic Credit</td>
</tr>
</tbody>
</table>

Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title Food Animal Production Medicine
Course Long Title (maximum 100 characters) Food Animal Production Medicine
Course Short Title (maximum 30 characters) Food Animal Production Medicine
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed [“ ” ; : $ & @ ! ? / + - = % # ] )
Course Description
Course Description (please limit to 150 words or less)

A series of lectures that deal with the specific diseases of domestic agricultural animals (cattle, sheep, goats, pigs and poultry). Emphasizes the etiology, epidemiology, pathogenesis, clinical and laboratory findings, diagnosis, treatment and control of the common diseases which occur in domestic farm animals. Some lectures deal with the important exotic diseases that are potential treats to the livestock industry.

Registration Information
Formerly: VLAC 482.5
Permission required: Must be enrolled in the 3rd year of the DVM program.
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

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These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:
Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php

Catalogue Credit Units (e.g. 110.6)  415.5

Catalogue Term Hour Listing (e.g. 3L-2P)  64L

Additional Notes
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue

   2.1 Label & Number of course: **VLAC 460.5**
   
   2.2 Title of course: **Equine Medicine and Surgery**
   
   2.3 Total Hours: 
   
   2.4 Weekly Hours: Lecture  Seminar  Lab  Tutorial  Other
   
   Other WCVM has an irregular timetable

   2.5 Term in which it will be offered:  T1  T2  T1 or T2  T1 and T2

   2.6 Prerequisite: **Completion of year 2 of the DVM program**

   2.7 Calendar description:

   A series of lectures dealing with medical, surgical and peripartum reproductive diseases of horses. In lectures, emphasis is placed on clinical signs, pathophysiology, diagnosis, management and treatment of common diseases, conditions and injuries of horses in Western Canada.

   2.8 Any additional notes

3. Rationale for introducing this course.

   This course provides students with basic knowledge concerning medical, surgical and selected reproductive diseases of horses. It further enhances students’ ability to perform clinical examination of horses and introduces them to important diagnostic techniques in equine medicine. The course builds on instruction provided in the first two years of the curriculum and prepares students for clinical instruction in fourth year.

4. Learning Objectives for this course.

   To provide the basic knowledge needed to successfully diagnose and treat the common and important diseases of horses in Western Canada. This course covers the clinical signs, pathophysiology, diagnosis, management and treatment of common surgical, medical and peripartum reproductive diseases, conditions and injuries of horses. The course further contributes to the students’ ability to prevent the spread of endemic and exotic diseases and safeguard against zoonotic disease.

5. Impact of this course.

   Are the programs of other departments or Colleges affected by this course? **NO**
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? **YES**
6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? **VLAC 462.5**
   Course(s) for which this course will be a prerequisite? **VINT 580.32**
   Is this course to be required by your majors, or by majors in another program? **NO**

7. **Course outline.**

<table>
<thead>
<tr>
<th>Subject/Section</th>
<th>Number lecture hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Diseases</td>
<td>2 hours surgery, 4 hours medicine</td>
</tr>
<tr>
<td>Foal Diseases and Peripartum problems of mares</td>
<td>3 hours surgery, 3 hours medicine</td>
</tr>
<tr>
<td>Musculoskeletal Diseases including lameness</td>
<td>17 hours surgery, 4 hours medicine</td>
</tr>
<tr>
<td>Dentistry</td>
<td>3 hours surgery</td>
</tr>
<tr>
<td>Gastrointestinal Diseases</td>
<td>4 hours surgery, 7 hours medicine</td>
</tr>
<tr>
<td>Dermatology</td>
<td>2 hours surgery, 1 hour medicine</td>
</tr>
<tr>
<td>Neurology</td>
<td>3 hours medicine</td>
</tr>
<tr>
<td>Cardiovascular Diseases</td>
<td>1 hour medicine</td>
</tr>
<tr>
<td>Anemia and Vasculitis</td>
<td>1 hour medicine</td>
</tr>
<tr>
<td>Endocrine Disorders</td>
<td>2 hours medicine</td>
</tr>
<tr>
<td>Male Urogenital Disorders</td>
<td>2 hours medicine</td>
</tr>
</tbody>
</table>

8. **Enrolment.**
   Expected enrollment: **83**
   From which colleges? **WCVM**

9. **Student evaluation.**
   Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

   - One midterm examination: **25% of final grade**
   - One final examination: **75% of final grade**

   **There will be questions on the midterm and final exam about the lab material. “Unexcused” absence from the lab will result in a 10 mark reduction in the student’s final grade for every lab missed.**

10. **Required text:** **NONE**
    Include a bibliography for the course.

11. **Resources.**
    Proposed instructor: **Multi instructor course, proposed coordinator is Dr. Spencer Barber**
    How does the department plan to handle the additional teaching or administrative workload? **n/a**
    Are sufficient library or other research resources available for this course? **n/a**
    Are any additional resources required (library, audio-visual, technology, etc.)? **n/a**

12. **Date of Implementation:**
    To be offered: **annually** biennially other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

**Main Block**

Subject: VLAC  
Course Number: 460.5  
Term from which this course will become effective: 2022/09  
Month: January May July September  
Year: 2022

**Information Block**

What is the academic college or school to which this course belongs?  
WCVM

What is the department or school that has jurisdiction over this course?  
Large Animal Clinical Sciences (VLAC)

If there is a prerequisite waiver, who is responsible for signing it?  
D – Instructor/Dept Approval  
H – Department Approval  
I – Instructor Approval

What is the academic credit unit weight of this course?  
5 credit units

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)  
N/A

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees)  
no

Do you allow this course to be repeated for credit? Yes  
No

How should this course be graded?  
C – Completed Requirements  
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)  
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

<table>
<thead>
<tr>
<th>Code</th>
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<td>SSI</td>
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<td>Lecture</td>
<td>XCH</td>
<td>Exchange Program</td>
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<td>LL</td>
<td>Lecture/Laboratory (Dent Only)</td>
<td>XGN</td>
<td>Ghost Schedule Type Not Applicable</td>
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<td>MM</td>
<td>Multimode</td>
<td>XHS</td>
<td>High School Class</td>
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<td>Pre-Clinical (Dent Only)</td>
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<tr>
<td>PRA</td>
<td>Practicum</td>
<td>XNC</td>
<td>No Academic Credit</td>
</tr>
</tbody>
</table>

Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title  Equine Medicine and Surgery
Course Long Title (maximum 100 characters) Equine Medicine and Surgery
Course Short Title (maximum 30 characters) Equine Medicine and Surgery
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed ["", ; , $ & @ ! ? / + - = % ( ) ]

Course Description
Course Description (please limit to 150 words or less)

A series of lectures dealing with medical, surgical and peripartum reproductive diseases of horses. In lectures, emphasis is placed on clinical signs, pathophysiology, diagnosis, management and treatment of common diseases, conditions and injuries of horses in Western Canada.

Registration Information
Formerly: VLAC 460.5
Permission required:
Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in the 3rd year of the DVM program.
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.
Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) 460.5
Catalogue Term Hour Listing (e.g. 3L-2P) 60L

Additional Notes
Course Change Proposal Form

Course Change Proposal

Basic information about the course change

1. Department: Large Animal Veterinary Clinical Sciences

2. Course: VLAC 474

3. Information required for the Calendar:

   Title of course: Veterinary Neuroscience

   Total Hours:

   \[ \begin{align*}
   & 28 \quad \text{Lecture} \\
   & \quad \text{Seminar} \\
   & 10 \quad \text{Lab} \\
   & \quad \text{Tutorial} \\
   & \quad \text{Other}
   \end{align*} \]

   Restrictions:
   Calendar description:

4. Reason for change:

   Three equine therio lectures were moved from the VLAC 462 Equine Medicine & Surgery Course to align with the subject matter.

   ____________________________________________  ____________________________________________
   Department Head Signature                        Faculty Signature

   ____________________________________________  ____________________________________________
   Date                                              Date

(Please submit to WCVM Student Services, Rm 4104.2, for final approval)
Course Change Proposal Form

Course Change Proposal

Basic information about the course change

1. Department: Small Animal Veterinary Clinical Sciences

2. Course: VSAC 410

3. Information required for the Calendar:
   
   Title of course: Veterinary Neuroscience
   
   Total Hours:
   
   _____ Lecture
   
   _____ Seminar
   
   _____ Lab
   
   _____ Tutorial
   
   _____ Other

   Restrictions:
   
   Calendar description:

4. Reason for change:
   
   To align the course calendar with the current course delivery.

________________________________________  __________________________
Department Head Signature                      Faculty Signature

________________________________________  __________________________
Date                                              Date

(Please submit to WCVM Student Services, Rm 4104.2, for final approval)
This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty - November 14, 2019

2. Information required for the Catalogue
   2.1 Label & Number of course: VINT 415.2
   2.2 Title of course: Veterinary Diagnostic Imaging
   2.3 Total Hours: 25 Lecture Seminar Lab Tutorial Other
   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other – WCVM has an irregular timetable
   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2
   2.6 Prerequisite: Completion of Year 2 of the DVM program
   2.7 Calendar description:
      Teaches the fundamentals of veterinary medical imaging, emphasizing x-ray and ultrasound, through a series of illustrated lectures and supervised film-reading laboratories. The course focuses on the basic principles of image analysis and interpretation through developing an understanding of clinical anatomy.

2.8 Any additional notes

3. Rationale for introducing this course.
   Medical imaging is an essential diagnostic tool in veterinary medicine. While emphasizing radiology and ultrasound, this course will introduce students to all modes of medical imaging, explaining the utility of each. Students will be introduced to and will practice a logical systematic approach to image analysis and interpretation which will prepare them for a problem-based approach to diseases as emphasized in third year veterinary courses.

4. Learning Objectives for this course.
   The student should:
   a. Learn the advantages and disadvantages of the various imaging modalities (radiography, ultrasound, CT, MRI and radionuclide imaging)
   b. Learn how to systematically and thoroughly analyse an image for technical quality and for visible abnormalities
   c. Learn the essential changes in imaging anatomy that are signs of a pathological change and learn the different pathological changes that can cause these signs
   d. Learn to correlate the imaging signs with history, clinical findings and other information to form an image interpretation
5. Impact of this course.
   Are the programs of other departments or Colleges affected by this course? **No**
   If so, were these departments consulted? (Include correspondence)
   Were any other departments asked to review or comment on the proposal? **Yes**

6. Other courses or program affected (please list course titles as well as numbers).
   Course(s) to be deleted? **n/a**
   Course(s) for which this course will be a prerequisite? **VINT 580.32**
   Is this course to be required by your majors, or by majors in another program? **N/A**

7. Course outline.
   **Lectures:**
   1. Introduction to Image Analysis and Imaging Modalities
   2. X-ray equipment & operation / Physics of radiography
   3. X-ray “imaging systems” / Radiation safety
   4. Ultrasound equipment & operation
   5. Appendicular skeleton & joints – 1
   6. Appendicular skeleton & joints – 2
   7. Appendicular skeleton & joints – 3
   8. Appendicular skeleton & joints – 4
   9. Spinal imaging – 1
   10. Spinal imaging – 2
   11. Spinal imaging – 3
   12. Skull imaging – 1
   13. Skull imaging – 2
   14. Abdomen – anatomy/technique
   15. Gastrointestinal
   16. Gastrointestinal & Genitourinary
   17. Genitourinary
   18. Liver, spleen, pancreas
   19. Thorax – anatomy/technique
   20. Lung disease
   21. Lung & pleural disease
   22. Cardiovascular disease – 1
   23. Cardiovascular disease – 2
   24. Mediastinal disease

8. Enrolment.
   Expected enrollment: **83**
   From which colleges? **WCVM**

9. Student evaluation.
   Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)
   **Final examination (a practicum) – 100%**

10. Required text: **NONE**
    Include a bibliography for the course.

11. Resources.
    Proposed instructor: Drs. Sukut, Starrak and Tryon
    How does the department plan to handle the additional teaching or administrative workload? **N/A**
    Are sufficient library or other research resources available for this course? **N/A**
Are any additional resources required (library, audio-visual, technology, etc.)? N/A

12. Date of Implementation:
To be offered: annually biennially other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject
Course Number 415
Term from which this course will become effective: 202209
Month: January May July September Year: 2022

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? Small Animal Clinical Sciences (VSAC)

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 2 credit unit

Is this course supposed to attract tuition charges? If so, how much? (use tuition category) n/a

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
C – Completed Requirements
(N – Numeric/Percentage

(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

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Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title Veterinary Diagnostic Imaging
Course Long Title (maximum 100 characters) Veterinary Diagnostic Imaging
Course Short Title (maximum 30 characters) Veterinary Diagnostic Imaging
(Only letters and numbers can be used in both short and long course titles. No punctuation of any type is allowed ["" ; , $ & @ ! ? / + - = % ( )] )
Course Description
Course Description (please limit to 150 words or less)

Teaches the fundamentals of veterinary medical imaging, emphasizing x-ray and ultrasound, through a series of illustrated lectures. The course focuses on the basic principles of image analysis and interpretation through developing an understanding of clinical anatomy.

Registration Information
Formerly:  
Permission required:  
Restriction(s): course only open to students in a specific college, program/degree, major, year in program  
Must be enrolled in year 3 of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.
Information For Display In The Catalogue Only
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php
Catalogue Credit Units (e.g. 110.6) 415.2
Catalogue Term Hour Listing (e.g. 3L-2P) 25L

Additional Notes
New Course Proposal Form

This form can be used by any college which does not already have a course proposal form.

1. Approval by department head or dean: WCVM Faculty – November 14, 2019

2. Information required for the Catalogue
   2.1 Label & Number of course: VSAC 450.10
   2.2 Title of course: Small Animal Medicine and Surgery
   2.3 Total Hours: 130 Lecture Seminar Lab Tutorial Other
   2.4 Weekly Hours: Lecture Seminar Lab Tutorial Other – WCVM has an irregular timetable
   2.5 Term in which it will be offered: T1 T2 T1 or T2 T1 and T2
   2.6 Prerequisite: Completion of year 2 of the DVM program
   2.7 Calendar description:
      A comprehensive course covering the clinical signs, diagnostic features, appropriate management, and prognosis of common and/or important small animal diseases affecting each body system. The emphasis is on establishing a solid diagnostic approach to cases and developing the clinical skills necessary to manage medical and surgical cases.

2.8 Any additional notes

3. Rationale for introducing this course.
   This course will endeavor to provide students with a clinical framework and allow them to practice a problem-oriented methodology that will enable them to diagnose, understand and manage the common and/or important medical and surgical disorders affecting dogs and cats. The intent will be to build on their already established basic sciences education and use cases to illustrate the clinical signs, diagnostic features, appropriate management, and prognosis of common and/or important small animal diseases affecting each body system.

4. Learning Objectives for this course.
   Students should:
   1. Gain exposure to and develop an understanding of the diagnostic approach to common medical and surgical problems in small animals, including:
      a. Strategies for collecting and interpreting historical information
      b. Recognizing the significance of abnormalities detected on a physical examination
      c. Forming a problem list, prioritizing problems and localizing disease
      d. Formulating a list of the most likely differential diagnoses for an identified problem
      e. Selecting tests to differentiate the diagnoses being considered and interpreting the results of common diagnostic tests.
2. Learn the pathophysiology, diagnostic features, appropriate management, potential complications and prognosis of common or important small animal diseases affecting each system

3. Understand the basic principles of surgeries used in general and referral practice to treat common and/or important surgical diseases in small animals with emphasis on indications, complications, prognosis and procedures for referral and consultation.

4. Recognize the ethical principles and obligations of the veterinary profession pertinent to the management of common and/or important small animal diseases.

5. Understand the importance of self regulation and continuous self improvement

Students should be able to:

1. Identify, interpret and apply information from textbooks and scientific literature in the management of common and/or important diseases involving small animals.

2. Obtain a comprehensive and a problem-directed medical history in small animals.

3. Communicate effectively, both orally and in writing, with owners, colleagues, and consultants, about the management of common and/or important surgical diseases in small animals.

4. Perform a careful, accurate, complete and problem-directed physical examination in dogs and cats and recognize the significance of abnormalities detected.

5. Interpret historical, physical examination, laboratory and radiological findings to diagnose common and/or important diseases of small animals.

6. Recognize and respond appropriately to life-threatening medical and surgical conditions

7. Establish a logical diagnostic approach to small animal patients with common complaints and reason deductively to solve common clinical problems.

8. Construct and execute an appropriate therapeutic plan.

9. Perform medical procedures used to collect diagnostic samples or manage common small animal conditions.

10. Perform basic surgical procedures used in the management of common small animal conditions.

5. Impact of this course.

Are the programs of other departments or Colleges affected by this course? NO

If so, were these departments consulted? (Include correspondence) YES

Were any other departments asked to review or comment on the proposal? YES

6. Other courses or program affected (please list course titles as well as numbers).

Course(s) to be deleted? VSAC 463.5 + VSAC 465.4

Course(s) for which this course will be a prerequisite? VINT 580.32

Is this course to be required by your majors, or by majors in another program? DVM
7. Course outline.

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<th>TOPIC</th>
<th>(hours)</th>
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<td>Midterm</td>
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8. Enrolment.

Expected enrollment: 83
From which colleges? WCVM

9. Student evaluation.

Give approximate weighting assigned to each indicator (assignments, laboratory work, mid-term test, final examination, essays or projects, etc.)

3 Midterm Exams: 40%
Final Exam: 60%
10. Required text: **NONE**
    Include a bibliography for the course.

11. Resources.
    Proposed instructor: **Multit instructor course, proposed coordinator is Dr. Kevin Cosford**
    How does the department plan to handle the additional teaching or administrative workload? n/a
    Are sufficient library or other research resources available for this course? n/a
    Are any additional resources required (library, audio-visual, technology, etc.)? n/a

12. Date of Implementation:
    To be offered: annually   biennially   other
To be completed by the College following approval of the course.

Required information is grouped in appropriate blocks to correspond with the data fields of the student information system, SiRIUS. Course details will be reflected through the student self-service features of SiRIUS and are key to system and registration functionality. Information provided on this form will be used in collaboration with required information provided to the Academic Programs Committee of Council through Course Challenge. For additional information about this form or SiRIUS, the Student Information System, contact Academic Services & Financial Assistance, SESD (phone Seanine at 1874).

Main Block
Subject: VSAC
Course Number: 450
Term from which this course will become effective: 202209
Month: January May July September Year: 2022

Information Block
What is the academic college or school to which this course belongs? WCVM
What is the department or school that has jurisdiction over this course? Small Animal Clinical Sciences (VSAC)

If there is a prerequisite waiver, who is responsible for signing it?
D – Instructor/Dept Approval
H – Department Approval
I – Instructor Approval

What is the academic credit unit weight of this course? 10 credit units

Is this course supposed to attract tuition charges? If so, how much? (use tuition category)

Does this course require non-standard fees, such as materials or excursion fees? If so, please include an approved “Application for New Fee or Fee Change Form” (http://www.usask.ca/sesd/info-for-instructors/program-course-preparation.php#course-fees) NO

Do you allow this course to be repeated for credit? Yes No

How should this course be graded?
C – Completed Requirements
(Grade options for instructor: Completed Requirements, Fail, IP In Progress)
N – Numeric/Percentage
(Grade options for instructor: grade of 0% to 100%, IP in Progress)
P – Pass/Fail
(Grade options for instructor: Pass, Fail, In Progress)
S – Special
(Grade options for instructor: NA – Grade Not Applicable) If other, please specify

Schedule Types
Schedule Types that can be used for sections that fall under this course:
(Indicate – highlight - all possible choices)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>Clinical</td>
<td>PRB</td>
<td>Problem Session</td>
</tr>
<tr>
<td>COO</td>
<td>Coop Class</td>
<td>RDG</td>
<td>Reading Class</td>
</tr>
<tr>
<td>FLD</td>
<td>Field Trip</td>
<td>RES</td>
<td>Research</td>
</tr>
<tr>
<td>ICR</td>
<td>Internet Chat Relay</td>
<td>ROB</td>
<td>Roster (Dent Only)</td>
</tr>
<tr>
<td>IHP</td>
<td>Internet Help</td>
<td>SEM</td>
<td>Seminar</td>
</tr>
<tr>
<td>IN1</td>
<td>Internship - Education</td>
<td>SSI</td>
<td>Supervised Self Instruction</td>
</tr>
<tr>
<td>IN2</td>
<td>Internship - CMPT &amp; EPIP</td>
<td>STU</td>
<td>Studio</td>
</tr>
<tr>
<td>IN3</td>
<td>Internship - General</td>
<td>SUP</td>
<td>Teacher Supervision</td>
</tr>
<tr>
<td>IND</td>
<td>Independent Studies</td>
<td>TEL</td>
<td>Televised Class</td>
</tr>
<tr>
<td>LAB</td>
<td>Laboratory</td>
<td>TUT</td>
<td>Tutorial</td>
</tr>
<tr>
<td>LC</td>
<td>Lecture/Clinical (Dent Only)</td>
<td>WEB</td>
<td>Web Based Class</td>
</tr>
<tr>
<td>LEC</td>
<td>Lecture</td>
<td>XCH</td>
<td>Exchange Program</td>
</tr>
<tr>
<td>LL</td>
<td>Lecture/Laboratory (Dent Only)</td>
<td>XGN</td>
<td>Ghost Schedule Type Not Applicable</td>
</tr>
<tr>
<td>MM</td>
<td>Multimode</td>
<td>XHS</td>
<td>High School Class</td>
</tr>
<tr>
<td>PCL</td>
<td>Pre-Clinical (Dent Only)</td>
<td>XNA</td>
<td>Schedule Type Not Applicable</td>
</tr>
<tr>
<td>PRA</td>
<td>Practicum</td>
<td>XNC</td>
<td>No Academic Credit</td>
</tr>
</tbody>
</table>

Detailed Information
What attributes would be assigned to this course (would apply to all sections under the course)? Please highlight the attributes you want attached to the course

1. 0 Credit Unit courses that possess “deemed” CUs (Called Operational Credit Units). The NOAC attribute causes the system to roll 0 academic CUs to academic history for this course.
   NOAC No Academic Credit

2. For the College of Arts and Science only: To which program type does this course belong?
   FNAR Fine Arts
   HUM Humanities
   SCIE Science
   SOCS Social Science
   ARNP No Program Type (Arts and Science)

Course Syllabus
Long Title Small Animal Medicine and Surgery
Course Long Title (maximum 100 characters) Small Animal Medicine and Surgery
Course Short Title (maximum 30 characters) SA Medicine and Surgery
Course Description
Course Description (please limit to 150 words or less)

A comprehensive course covering the clinical signs, diagnostic features, appropriate management, and prognosis of common and/or important small animal diseases affecting each body system. The emphasis is on establishing a solid diagnostic approach to cases and developing the clinical skills necessary to manage medical and surgical cases.

Registration Information
Formerly: VSAC 463.5 + VSAC 465.4
Permission required: Restriction(s): course only open to students in a specific college, program/degree, major, year in program
Must be enrolled in year 3 of the DVM program
Prerequisite(s): course(s) that must be completed prior to the start of this course
Prerequisite(s) or Corequisite(s): course(s) that can be completed prior to or taken at the same time as this course
Corequisite(s): course(s) that must be taken at the same time as this course
Notes: recommended courses, course repeat restrictions/content overlap, other additional course information
Exam Exempt
Yes  No

Equivalent Courses
Please list the course(s) that you consider to be equivalent to this course. To be considered equivalent, the course must meet the following criteria:

1) If a student has received credit for the equivalent course, s/he should not be eligible to register for the course for which this form is being completed.
2) The equivalent course must be able to be used in place of the course for which this form is being completed when the system does prerequisite checking and degree audit checking.

Colleges must specify how DegreeWorks should handle equivalent courses with unequal credit units through the University Course Challenge process. If this is not specified, DegreeWorks will automatically enforce the following:

- If a 3 credit unit course is considered to be equivalent to a 6 credit unit course, it will fulfill the 6 credit unit requirement and the student will not have to complete another 3 credit units toward the overall number of required credit units for the program.
- If a 6 credit unit course is considered to be equivalent to a 3 credit unit course, ALL 6 of the credit units may be used to fulfill the 3 credit unit requirement.

Mutually-Exclusive Courses
These courses are not entirely equivalent, but possess similar content. Consequently, you may wish to have SiRIUS prevent students from receiving credit for both courses. Please list any courses that are mutually-exclusive with this course:

Please note that SiRIUS cannot enforce a situation where the exclusion goes only one way.

**Information For Display In The Catalogue Only**
Please refer to the Key to Course Descriptions at:
http://students.usask.ca/academics/registration/search-results.php

Catalogue Credit Units (e.g. 110.6)  
VSAC 450.10

Catalogue Term Hour Listing (e.g. 3L-2P)  
130 L

Additional Notes
Competency-Based Veterinary Education:

CBVE framework

Part 1
Preparing future generations of highly qualified veterinary medical practitioners is one of our most fundamental responsibilities as educators. How can we be assured that, collectively, we are producing practice-ready, entry-level professionals who are educated to a common standard and ready to deliver competent, professional care in a variety of clinical environments?

We can ensure that our institutions meet the educational standards of performance articulated by the AVMA Council on Education. We can examine student performance data on the North American Veterinary Licensing Exam (NAVLE). But how can we create consensus for what constitutes a “practice-ready veterinarian?” And how do we know if our graduates are achieving this benchmark?

Such were the questions facing the AAVMC Competency-Based Veterinary Education Working Group when it was established in July 2015. The group began by systematically reviewing and analyzing the contemporary literature in competency-based education throughout the health professions. Then, over 32 months of coordinated work and dozens of virtual and face-to-face meetings, they constructed this framework for competency-based outcomes assessment in veterinary medical education.

The result of their labor represents one of the most substantial pedagogical projects ever undertaken by the AAVMC. We invite the colleges and schools of veterinary medicine to consider this framework as they update their professional curricula, whether they are making modest refinements or undergoing a complete curriculum redesign.

We are indebted to the CBVE Working Group for the enormous amount of time and effort they invested in this project. The framework they have produced will inform and enrich many different aspects of our professional programs, and substantially foster the professional excellence we all seek in academic veterinary medicine.

Andrew T. Maccabe, DVM, MPH, JD  
AAVMC Chief Executive Officer
Competency-Based Veterinary Education (CBVE) is an approach modeled after competency-based medical education and is designed to prepare graduates for professional careers by confirming their ability to meet the needs of animals and the expectations of society. This approach focuses on outcomes-based and learner-centered education and assessment.

The CBVE framework consists of nine domains of competence, each representing a group of related abilities necessary for veterinary graduates. Associated with each domain is a list of competencies, all of which are considered core for veterinary education. The CBVE framework consists of 32 competencies, some of which lend themselves to assessment in the clinical context, while others may be best assessed in the pre-clinical curriculum.

To better describe each competency, illustrative subcompetencies are provided as examples of content that may be modified or refined by individual schools. Subcompetencies are more granular than competencies and can be used to develop course or rotation objectives and assessments.

The CBVE framework provides a consistent foundation for implementation in any veterinary curriculum. A team of individuals known as the AAVMC CBVE Working Group developed this framework and associated Entrustable Professional Activities (EPAs) which are described in a separate document. Members of this team include representatives from veterinary colleges and schools across the U.S., Canada, Europe, the U.K. and some with experience from Australia. The AAVMC CBVE website provides resources on the framework and EPAs. Additional work products including milestones and assessment tools will be added as they become available. Please see: aavmc.org/cbve

Co-chairs: Laura Molgaard (University of Minnesota) and Jennie Hodgson (Virginia Tech)

Members: Harold Bok (Utrecht University), Kristin Chaney (Texas A&M University), Jan Ilkiw (University of California – Davis), Susan Matthew (Washington State University), Stephen May (Royal Veterinary College), Emma Read (University of Calgary), Bonnie Rush (Kansas State University), Kathy Salisbury (Purdue University)

Educational Consultant: Jody Frost

AAVMC Staff Liaison: Ted Mashima

March 2018
Questions, Suggestions and Comments

The AAVMC’s Competency-Based Veterinary Education (CBVE) project is an ongoing, dynamic undertaking which will be continuously developed and enhanced. Suggestions and input from all sectors of academic veterinary medicine are welcome. If you have questions or suggestions about the CBVE project, please contact project leadership by emailing CBVE@aavmc.org.
Key Definitions

Competency
An observable ability of a health professional related to a specific activity that integrates knowledge, skills, values, and attitudes. Since competencies are observable, they can be measured and assessed to ensure their acquisition.¹

Domains of Competence (DOC)
Broad distinguishable areas of competence that in the aggregate constitute a general descriptive framework for a profession.²

Competency Framework
An organized and structured representation of a set of interrelated and purposeful competencies.³

Entrustable Professional Activity (EPA)
An essential task of a discipline that a learner can be trusted to perform with limited supervision in a given context and regulatory requirements, once sufficient competence has been demonstrated. (As adapted from⁴)

Milestone
A defined, observable marker of an individual’s ability along a developmental continuum.⁴


## Domains of Competence

<table>
<thead>
<tr>
<th></th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Clinical Reasoning and Decision-making</td>
</tr>
<tr>
<td>2</td>
<td>Individual Animal Care and Management</td>
</tr>
<tr>
<td>3</td>
<td>Animal Population Care and Management</td>
</tr>
<tr>
<td>4</td>
<td>Public Health</td>
</tr>
<tr>
<td>5</td>
<td>Communication</td>
</tr>
<tr>
<td>6</td>
<td>Collaboration</td>
</tr>
<tr>
<td>7</td>
<td>Professionalism and Professional Identity</td>
</tr>
<tr>
<td>8</td>
<td>Financial and Practice Management</td>
</tr>
<tr>
<td>9</td>
<td>Scholarship</td>
</tr>
</tbody>
</table>
The graduate demonstrates critical thinking and problem solving to arrive at evidence-based decisions that consider animal and client needs, available resources, and social context.

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>ILLUSTRATIVE SUBCOMPETENCIES</th>
</tr>
</thead>
</table>
| 1.1 Gathers and assimilates relevant information about animals | a. Collects history  
b. Performs physical examination  
c. Interprets diagnostic test results  
d. Performs necropsy examination |
| 1.2 Synthesizes and prioritizes problems to arrive at differential diagnoses | a. Identifies problems  
b. Creates refined problem list  
c. Prioritizes differential diagnoses |
| 1.3 Creates and adjusts a diagnostic and/or treatment plan based on available evidence | a. Appraises available clinical information and acts accordingly despite uncertainty  
b. Explains justification for plan  
c. Re-evaluates animal or population in a timely manner to adjust plan  
d. Uses critical thinking to determine appropriate action when unexpected outcomes occur (e.g., complications, changed diagnosis) |
<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>ILLUSTRATIVE SUBCOMPETENCIES</th>
</tr>
</thead>
</table>
| 1.4 Incorporates animal welfare, client expectations, and economic considerations into the diagnostic or treatment plan | a. Considers disease in context of the whole animal and client  
   b. Presents a range of options to the client  
   c. Considers euthanasia as a management option when appropriate |
| 1.5 Prioritizes situational urgency and allocates resources                  | a. Triages cases to address most urgent and important problems first  
   b. Recognizes emergent situation and directs action  
   c. Recognizes and responds to reportable, transboundary, epizootic, and emerging/re-emerging diseases |
| 1.6 Adapts knowledge to varied scenarios and contexts                        | a. Extrapolates knowledge to novel species or situations  
   b. Adjusts existing protocol or procedure when standard measures are unavailable |
| 1.7 Recognizes limitations of knowledge, skill and resources and consults as needed | a. Identifies situations in which referral is warranted  
   b. Consults experts both within and outside the veterinary profession |
The graduate performs preventive, diagnostic, medical and surgical procedures for the health, wellness and treatment of animals, appropriate to the context and life stage.

### COMPETENCIES

<table>
<thead>
<tr>
<th>2.1</th>
<th>Performs veterinary procedures and post-procedural care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Performs elective procedures (e.g., castration)</td>
</tr>
<tr>
<td></td>
<td>b. Performs routine therapeutic procedures (e.g., administer fluids)</td>
</tr>
<tr>
<td></td>
<td>c. Performs emergency procedures (e.g., establish an airway)</td>
</tr>
<tr>
<td></td>
<td>d. Provides analgesia and postoperative care</td>
</tr>
<tr>
<td></td>
<td>e. Anesthetizes and recovers patients</td>
</tr>
<tr>
<td></td>
<td>f. Manages patient comfort</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2</th>
<th>Promotes comprehensive wellness and preventive care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Recommends disease prevention measures</td>
</tr>
<tr>
<td></td>
<td>b. Provides nutritional counseling appropriate to life stage and health status</td>
</tr>
<tr>
<td></td>
<td>c. Advises clients regarding routine dental care</td>
</tr>
<tr>
<td></td>
<td>d. Educates clients on prevention of common behavioral problems</td>
</tr>
<tr>
<td></td>
<td>e. Counsels clients about husbandry and welfare needs</td>
</tr>
</tbody>
</table>
### DOMAIN 3

Animal Population Care and Management

The graduate designs and implements programs in herd/flock health, disease prevention and control to improve the health, welfare and productivity of animal populations.

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>ILLUSTRATIVE SUBCOMPETENCIES</th>
</tr>
</thead>
</table>
| 3.1 Applies population management principles in compliance with legal regulations and economic realities | a. Recommends disease prevention measures  
b. Advises on nutritional management  
c. Recommends housing and husbandry protocols  
d. Designs therapeutic plans for disease management |
| 3.2 Recommends and evaluates protocols for biosecurity | a. Develops isolation protocols  
b. Selects disinfection protocols  
c. Recommends protocols for animal movement |
| 3.3 Advises stakeholders on practices that promote animal welfare | a. Advocates for animal welfare through communication of the physical, affective and natural needs of the animal. Explains ethical and welfare-related aspects of production processes and slaughter  
b. Recognizes proper handling and/or adequate production facilities by interpretation of appropriate animal behaviors. Advises on animal husbandry and transport |
The graduate responds to issues at the interface of animals, humans, and the environment, utilizing a global perspective and sensitivity to local cultures.

### COMPETENCIES

#### 4.1 Recognizes zoonotic diseases and responds accordingly

<table>
<thead>
<tr>
<th>Subcompetencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Identifies the clinical signs, clinical course, transmission potential and pathogen(s) associated with zoonotic diseases</td>
</tr>
<tr>
<td>b. Responds to zoonotic disease diagnosis through owner education, reporting, quarantine, and disinfection</td>
</tr>
</tbody>
</table>

#### 4.2 Promotes the health and safety of people and the environment

<table>
<thead>
<tr>
<th>Subcompetencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Makes recommendations for management of animal waste, carcasses, and by-products</td>
</tr>
<tr>
<td>b. Implements safety and infection control practices</td>
</tr>
<tr>
<td>c. Advises on disaster/emergency preparedness and response</td>
</tr>
<tr>
<td>d. Practices responsible use of antimicrobial agents</td>
</tr>
<tr>
<td>e. Describes the role of the veterinarian in food safety</td>
</tr>
</tbody>
</table>
The graduate communicates effectively with diverse clients, colleagues, other healthcare professionals and the public to promote animal, human and environmental health and wellbeing.

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>ILLUSTRATIVE SUBCOMPETENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Listens attentively and communicates professionally</td>
</tr>
<tr>
<td>a. Communicates with diverse audiences (e.g., demonstrates empathy, uses terminology appropriate to listener)</td>
<td></td>
</tr>
<tr>
<td>b. Utilizes a variety of communication platforms (e.g., email)</td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>Adapts communication style to colleagues and clients</td>
</tr>
<tr>
<td>a. Demonstrates client-centered communication</td>
<td></td>
</tr>
<tr>
<td>b. Elicits client goals, expectations, perspectives and constraints, considering the human-animal bond</td>
<td></td>
</tr>
<tr>
<td>c. Engages clients in difficult conversations such as financial decisions and end-of-life care (e.g., palliative care and euthanasia)</td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td>Prepares documentation appropriate for the intended audience</td>
</tr>
<tr>
<td>a. Documents care and communication using professional terminology</td>
<td></td>
</tr>
<tr>
<td>b. Ensures documentation fulfills professional and legal requirements</td>
<td></td>
</tr>
</tbody>
</table>
The graduate collaborates with diverse colleagues, clients and other stakeholders and demonstrates skills as a leader and inter-professional team member to improve outcomes and reduce error.

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>ILLUSTRATIVE SUBCOMPETENCIES</th>
</tr>
</thead>
</table>
| 6.1 Solicits, respects and integrates contributions from others | a. Invites input from others irrespective of role, hierarchy or background  
    b. Acknowledges input and incorporates into ongoing plan of action  
    c. Leverages own role and roles of others to achieve shared goals |
| 6.2 Functions as leader or team member based on experience, skills and context | a. Applies principles of teamwork  
    b. Bases action on collaborative input  
    c. Manages conflict |
| 6.3 Maintains ongoing relationship to provide continuity of collaborative effort | a. Follows up to determine if collaborator can implement the plan  
    b. Provides support through encouragement, education, or redirection to refine the plan of action |
| 6.4 Demonstrates inclusivity and cultural competence | a. Demonstrates respect for diversity  
    b. Encourages diverse contributions within the workplace |
The graduate demonstrates behaviors expected of the veterinarian, including ethical reasoning, reflective practice, self-regulation, professional development, and personal wellbeing.

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>ILLUSTRATIVE SUBCOMPETENCIES</th>
</tr>
</thead>
</table>
| **7.1** Adopts an ethical approach to meeting professional obligations | a. Applies an ethical approach to professional decision-making  
   b. Recognizes and responds to evidence of neglect and abuse |
| **7.2** Practices time management     | a. Recognizes impact of time management on stakeholders  
   b. Prioritizes and completes tasks according to importance and urgency |
| **7.3** Reflects on personal actions | a. Invites and responds to constructive feedback on performance  
   b. Critiques decision-making process and its outcomes |
<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>ILLUSTRATIVE SUBCOMPETENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.4 Engages in self-directed</td>
<td>a. Engages in self-directed learning as a foundation for life-long learning</td>
</tr>
<tr>
<td>directed learning and career</td>
<td>b. Identifies and undertakes professional development to meet learning needs</td>
</tr>
<tr>
<td>planning</td>
<td>c. Uses appropriate resources for learning and decision making (e.g., information technology, consultation with colleagues)</td>
</tr>
<tr>
<td></td>
<td>d. Compares career paths and weights professional and personal rewards (e.g., financial implications)</td>
</tr>
<tr>
<td>7.5 Attends to wellbeing of self</td>
<td>a. Recognizes sources of workplace stress and acts to remedy adverse situations</td>
</tr>
<tr>
<td>and others</td>
<td>b. Recognizes signs of stress in self and colleagues, engages in self-care and recognizes when professional support is appropriate for self or others</td>
</tr>
<tr>
<td></td>
<td>c. Manages expectations of client and self</td>
</tr>
</tbody>
</table>
The graduate utilizes business acumen to manage professional and personal decisions, complies with legal and regulatory requirements and ensures safety of the workplace.

### COMPETENCIES

<table>
<thead>
<tr>
<th>8.1</th>
<th>Weighs economic factors in personal and business decision-making</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Applies financial principles to professional decisions (e.g., debt repayment plan)</td>
</tr>
<tr>
<td>b.</td>
<td>Explains work-related insurance (e.g., personal, professional, patient)</td>
</tr>
<tr>
<td>c.</td>
<td>Describes relationship between revenue generation, expense categories, and compensation including benefits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8.2</th>
<th>Delivers veterinary services compliant with legal and regulatory requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Acts in accordance with codes of professional practice, veterinary practice acts and licensing board regulations (e.g., veterinarian-client-patient relationship)</td>
</tr>
<tr>
<td>b.</td>
<td>Acts in accordance with legal and regulatory requirements (e.g., reportable diseases, animal cruelty, waste disposal)</td>
</tr>
<tr>
<td>c.</td>
<td>Selects drugs in accordance with regulatory and legal requirements (e.g., controlled substances, extra-label, or off-label drug use)</td>
</tr>
</tbody>
</table>
Financial and Practice Management

## COMPETENCIES

<table>
<thead>
<tr>
<th>8.3</th>
<th>Advocates for the health and safety of patients, clients, and members of the team within the workplace</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>ILLUSTRATIVE SUBCOMPETENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Complies with workplace health and safety regulations (e.g., radiation safety, infection control)</td>
</tr>
<tr>
<td>b. Applies safe practices for handling hazardous materials (e.g., administration of chemotherapeutic agents)</td>
</tr>
</tbody>
</table>
The graduate demonstrates the systematic identification, evaluation, integration and adaptation of evidence and experience to formulate questions and solutions, and educate others.

## COMPETENCIES

<table>
<thead>
<tr>
<th>9.1</th>
<th>Evaluates health-related information</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Retrieves and evaluates information based on research principles</td>
</tr>
<tr>
<td>b.</td>
<td>Analyzes information for accuracy, reliability, validity and applicability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9.2</th>
<th>Integrates, adapts and applies knowledge and skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Formulates questions and customizes solutions, drawing on personal experience and available evidence</td>
</tr>
<tr>
<td>b.</td>
<td>Applies literature to solve clinical or scientific problems (e.g., evidence-based practice)</td>
</tr>
<tr>
<td>c.</td>
<td>Applies creativity to develop innovative solutions</td>
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<tr>
<th>9.3</th>
<th>Disseminates knowledge and practices to stakeholders</th>
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<tbody>
<tr>
<td>a.</td>
<td>Develops and disseminates educational material</td>
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<tr>
<td>b.</td>
<td>Explains evidence-based recommendations</td>
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<tr>
<td>Objective 1: Develop and pursue new sources of revenue:</td>
<td>Objective 2: Improve operational efficiencies and optimize preparedness to take advantage of strategic opportunities and challenges:</td>
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<td>------------------------------------------------------</td>
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<tr>
<td>1. Develop a flexible and responsive student enrollment plan for the professional DVM program: continue to meet the ongoing needs of the veterinary profession for western Canada; explore increased number of indigenous student seats through engagement with the federal government; launch pilot program for non-provincially sponsored student seats; explore feasibility of international student seats.</td>
<td>1. Develop review of operational and administrative processes: enable effective, efficient and accurate processes; ensure collaboration and alignment with department and unit plans; optimize internal communication mechanisms.</td>
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<tr>
<td>2. Optimize existing sources of revenue: renew the Interprovincial funding agreement and promote regional partnership across western Canada; increase donor and alumni engagement through the College’s development office; optimize VMC revenue-generating opportunities; explore tuition amendments to align with other veterinary colleges across Canada.</td>
<td>2. Develop a college-level faculty and staff complement plan: ensure that the academic and administrative needs of the college are being met efficiently; review current resources and review opportunities for reallocation.</td>
</tr>
<tr>
<td>3. Increase research funding: support faculty in obtaining more tri-council funding; collaborate with external stakeholders to develop externally-supported research chair positions.</td>
<td>3. Develop college capital plan and optimize processes for ongoing space and capital planning: continue to support the activities of the college capital planning committee; conduct a college-wide review of space use and needs; preparation of capital project proposals; develop procedures for prioritizing off-the-shelf/shovel ready proposals (e.g. Animal Cancer Centre, undergraduate teaching lab renovation, collaborative clinical research lab) ensuring alignment with college priorities.</td>
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<tr>
<td>4. Pursue new program initiatives: explore feasibility of new undergraduate program; develop post-DVM and post-graduate certificate programs; explore development of Registered Veterinary Technician training program.</td>
<td>4. Develop a college-wide risk management plan: explore strategies for mitigating effects of funding uncertainty through contingency fund planning, with consideration of continued changes to Interprovincial funding agreement and regional partnership, changes in VMC revenue streams, university collective agreements, etc.</td>
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Goal 2: Strengthen and expand our research mission

<table>
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<tr>
<th>Objective 1: Build research capacity</th>
<th>Objective 2: Grow indigenous engagement</th>
<th>Objective 3: Advance primary research areas</th>
<th>Objective 4: Enhance research collaboration</th>
<th>Objective 5: Support researchers</th>
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<tr>
<td>Leverage innovative funding opportunities to grow and maintain a rich educational and physical environment to support research excellence and high quality trainee experiences.</td>
<td>Engage in research and increase awareness related to biotic and abiotic factors that contribute to wellness in northern and Indigenous communities.</td>
<td>Increase research intensity in WCVM’s primary research areas, by establishing, supporting and strategically marketing research priorities:</td>
<td>Nurture and grow a culture of collaboration that embraces participation and leadership in multidisciplinary research, HQP exchange programs, and national and international team science:</td>
<td>Provide support, mentorship and development for trainees, research professionals and faculty throughout all stages of their career.</td>
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1. **Objective 1: Build research capacity**

   - **HQP recruitment and training:** Develop a centralized graduate studies recruitment program and improve college-level branding in relevant academic, government, and industrial sectors. Enhance stipends, bursaries and/or scholarship programs to an internationally competitive level for our trainees.
   
   - **Physical resources (facilities and equipment):** Audit current space and develop a plan that reflects research density. Build a central inventory of essential multiuser equipment, assess gaps, and implement a long-term operation and maintenance plan.
   
   - **Develop innovative funding models:** Explore strategies to increase funding from government, industry and private sources; develop programs to support research undertaken by undergraduate and graduate students from within and outside the WCVM; investigate ways to generate additional overhead revenue and use it transparently for the betterment of the research enterprise.

2. **Objective 2: Grow indigenous engagement**

   - **Community wellness and public health:** Evaluate impact of continued support for wellness clinics and research engaging Indigenous communities. Nurture existing relationships between communities and WCVM personnel and seek new partnerships with Indigenous communities. Optimize University resources to expand relationships where possible.
   
   - **Infectious diseases:** Encourage and support expanded research in infectious diseases threatening animals and traditional food supplies with Indigenous communities.
   
   - **Environmental, toxicological and climatologic threats to northern communities:** Forge partnerships with Indigenous and non-Indigenous groups who have expertise and connections to undertake world class collaborative projects.

3. **Objective 3: Advance primary research areas**

   - **Animal health and welfare:** Diseases of companion animal, livestock and equids; behaviour and welfare of animals, human-animal bond.
   
   - **Food supply and agricultural sustainability:** Livestock production and population medicine and effect on food safety and supply, industry competitiveness, trade and economics.
   
   - **One Health:** antimicrobial usage and resistance, and zoonotic diseases.
   
   - **Ecosystem health:** Effects of climate and disease on wildlife (mammals, birds, insects) populations and the environment.
   
   - **Comparative medicine and translational research:** Establish and expand animal models of human disease to better investigate pathophysiology with focus on the identification of therapeutic targets and the development of effective treatments and prophylactic measures for the benefit of society.
   
   - **Scholarship of education:** Evidence-based investigation of teaching methodology to inform best practices in teaching and learning.

4. **Objective 4: Enhance research collaboration**

   - **Enhance multidisciplinary research:** Support development of projects that span disciplines, such as clinical trials. Recognize and reward all levels of collaboration. Encourage expansion and innovation beyond traditional boundaries and skills.
   
   - **Create opportunities for formal HQP exchange:** Expand existing programs and develop new partnerships with other biomedical institutions.
   
   - **Leadership and participation in national and international team science opportunities:** Seek funding opportunities, support development of research teams. Provide college-level support to facilitate project development and reporting.
   
   - **Cultivate industry engagement and private-public funding partnerships:** Increase WCVM’s industry exposure and visibility. Enhance existing and develop new relationships with the private sector and industry groups. Seek local expertise to establish marketing plans and economic analyses.

5. **Objective 5: Support researchers**

   - **Enhance HQP experiences and success:** Develop formal programs for assessing HQP experiences and determine areas for improvement. Increase opportunities for mentorship, teaching assistantships and career development.
   
   - **Faculty development and support:** Assess effectiveness of faculty mentorship programs. Establish programs to improve grantsmanship and optimize funding success. Investigate ways to protect sufficient time for scholarly activity, especially for early career clinical faculty.
   
   - **Support programs for postdoctoral fellowships and research professionals:** Determine need and find new opportunities to recruit post docs, associates and senior technicians into leadership training roles.
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<th>Goal 3: Enrich and expand the student experience</th>
<th>Objective 1: Ensure our professional program prepares graduates for engagement in the veterinary profession of the future</th>
<th>Objective 2: Embrace and celebrate diversity and indigenization</th>
<th>Objective 3: Champion student engagement in the community</th>
<th>Objective 4: Enhance clinical experience for DVM students, interns and residents.</th>
<th>Objective 5: Promote a culture of excellence in teaching and learning</th>
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<tr>
<td><strong>1.</strong> Develop a plan for ongoing curriculum renewal: Create a sustainable process for deliberate, thoughtful, evidence-based change while supporting and implementing new and innovative teaching methods</td>
<td><strong>1.</strong> Increase number of indigenous students enrolled in DVM program: Explore different funding opportunities to increase seats available to indigenous students; seek engagement opportunities within indigenous communities throughout western Canada to partner and develop mutual understanding regarding animal health and the veterinary profession.</td>
<td>1. <strong>Objective</strong>: Explore opportunities for a community practice: Expand upon current relationships with underserved communities to provide meaningful clinical experiences for the student body; explore opportunities to engage in inner-city experiences to enhance cultural awareness, innovative application of knowledge and low cost veterinary services while enhancing communication skills.</td>
<td>1. <strong>Objective</strong>: Expand and optimize use of simulation at all levels of the DVM program: explore opportunities for maximizing use of BJ Hughes Centre for Clinical Learning simulation to allow for a low stake learning environment prior to entry into the clinic; integrate clinical skill outcomes with curricular goals.</td>
<td>1. <strong>Objective</strong>: Sustain and expand program of instructional development: Explore approaches to enhance and encourage excellence in teaching; develop methods of recognition within the college for recognition of innovative curriculum delivery; explore the creation of a certificate program in medical education.</td>
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<td><strong>2.</strong> Continue to integrate outcomes assessment: Develop targeted objectives which identify expectations at each stage of the curriculum and ensure curricular alignment.</td>
<td>2. <strong>Objective</strong>: Support curriculum and scholarship in diversity and indigenization: Speakers from the community and WCVM alumni incorporated curriculum for first year students; engaging Elders and knowledge keepers to assist WCVM faculty identify and understand traditional animal health knowledge of Indigenous people</td>
<td>2. <strong>Objective</strong>: Strengthen student and post-graduate engagement in animal-related organizations: Renew our commitment and expand our partnership with the SPCA; seek further opportunities for engagement and support of animal rescue and other animal-related organizations groups to provide further experiential learning.</td>
<td>2. <strong>Objective</strong>: Expand opportunities for the provision of quality clinical experience and training: Explore the establishment of satellite clinics; investigate feasibility of extended clinical rotations.</td>
<td>2. <strong>Objective</strong>: Explore opportunities for mentorship and evaluation of teaching for all college instructors: Investigate methods of teaching assessment for professional medical education to provide both formative and summative feedback.</td>
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<td><strong>3.</strong> Transferable professional skills: support and expand mentee/mentor training program; identify opportunities to develop and build student resilience; professional communication; financial literacy; wellness.</td>
<td>3. <strong>Objective</strong>: Increase the cultural competence of DVM and graduate students: Strengthen support for the Dean’s Advisory Committee on Indigenous Engagement; enhance educational opportunities for students to understand diverse cultural frameworks; continued support for northern service learning rotations and research opportunities; explore other opportunities for engagement with northern and indigenous communities.</td>
<td><strong>Objective 3</strong>: Champion student engagement in the community</td>
<td>3. <strong>Objective</strong>: Develop plan to ensure teaching space and facilities align with enrollment and curriculum needs.</td>
<td><strong>Objective 5</strong>: Promote a culture of excellence in teaching and learning</td>
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<td><strong>4.</strong> Provide and encourage students to engage in experiential learning opportunities: Explore opportunities to enhance and increase experiential learning throughout the curriculum, including research opportunities, service learning northern rotation program, externship opportunities, Interprofessional education and One Health opportunities, year round clinical experiences.</td>
<td><strong>Objective 4</strong>: Enhance clinical experience for DVM students, interns and residents.</td>
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<tr>
<td><strong>5.</strong> Develop plan to ensure teaching space and facilities align with enrollment and curriculum needs.</td>
<td><strong>Objective 5</strong>: Promote a culture of excellence in teaching and learning</td>
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**WCVM Strategic Planning Goals**
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<tr>
<th>Objective 1: Sustain and advance an adaptable, progressive cutting-edge clinical practice.</th>
<th>Objective 2: Improve our client and referring veterinary experience.</th>
<th>Objective 3: Embrace and grow indigenous engagement and community outreach.</th>
<th>Objective 4: Enrich clinical training opportunities</th>
<th>Objective 5: Ensure that hospital operations and facilities are aligned with and optimize the teaching mission.</th>
<th>Objective 6: Become an employer of choice</th>
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<tr>
<td>1. Explore mechanisms to ensure innovative and best practices: Create a team to review, investigate, and implement policies and procedures based on leading evidence and best practice available, and communicate with the hospital; develop, communicate and provide training for implementation of new standard operating procedures. This process will allow buy-in to build naturally.</td>
<td>1. Establish and implement general communication and marketing strategies: Promote services available, highlighting the specialties of the clinic and hospital. 2. Ensure a better client experience while in the hospital: Cultivate relationships with clients from booking through discharge and follow-up; create a standardized approach to address how all clients/patients are treated. 3. Improve the management of client, student, faculty and staff expectations: Target enhanced communication through standardizing processes, emphasizing follow-up and creating concrete feedback strategies.</td>
<td>1. Identify opportunities for meaningful collaboration: Promote collaborative goal setting, learning and enhanced clinical experience for veterinary students and help for underserved communities in western Canada; promote an understanding of cultural and historical impact on medical decision making and cultural competence in clinical practice.</td>
<td>1. Strengthen and advance a commitment to providing quality practical training experience: For undergraduate, post-graduate and specialty practice training, grow and foster a focus on application of knowledge in a safe environment to enhance learning, technical and communication skills of trainees in common and referral cases, engaging with all parts of the community. 2. Explore establishment of satellite clinics: expand opportunities for the provision of quality clinical experience and training to foster the application of knowledge, technical and communication skills in a variety of clinical environments.</td>
<td>1. Conduct a thoughtful and careful review of current operational procedures and spaces: Optimize client, patient, and student experiences; space for rounds and other group teaching to enhance collaboration and communication amongst all staff, faculty and students; consideration for best practices related to patient care; private spaces for client consultations.</td>
<td>1. Invest in personnel: develop strategies and target resources to attract, train, retain excellent faculty and staff; enhance job satisfaction and engagement; 2. Continue the development and implementation of professional behavior as described in the Values Wheel: Expand onboarding for faculty and staff; continue leadership development at multiple levels across the VMC; continue optimizing the implementation of the new VMC structure; continue to focus on core VMC missions of patient care, student learning and discovery. 3. Continue to prioritize safety and wellness for faculty, staff and students</td>
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# GLOSSARY

**AAFC**: Agriculture and Agri-Food Canada  
**AAHA**: American Animal Hospital Association  
**AB or Alta.**: Alberta  
**ABVMA**: Alberta Veterinary Medical Association  
**ACU**: Animal Care Unit, WCVM  
**AVC**: Atlantic Veterinary College, University of Prince Edward Island  
**B.C.**: British Columbia  
**BTU**: Bovine Teaching Unit, WCVM  
**CLS**: Canadian Light Source, the only national synchrotron light source facility in Canada  
**CVBC**: College of Veterinarians of British Columbia  
**Development Office**: Responsible for all of the WCVM’s fundraising and alumni activities  
**DVM program**: Doctor of Veterinary Medicine program, Western College of Veterinary Medicine  
**ELAP**: Emerging Leaders of the Americas Program  
**EPC**: Ryan/Dubé Equine Performance Centre  
**FMV**: Faculté de médecine vétérinaire, Université de Montréal  
**GMTLC**: Gwenna Moss Teaching and Learning Centre, University of Saskatchewan  
**IPA**: WCVM Interprovincial Agreement  
**LACS**: Department of Large Animal Clinical Sciences, WCVM  
**LFCE**: Livestock and Forage Centre of Excellence  
**MB or Man.**: Manitoba  
**MVMA**: Manitoba Veterinary Medical Association  
**NSERC-CREATE**: Natural Sciences and Engineering Research Council of Canada-Collaborative Research and Training Experience Program  
**Nunavut**: Largest and northernmost territory of Canada
N.W.T.: Northwest Territories

OVC: Ontario Veterinary College, University of Guelph

PDS: Prairie Diagnostic Services, Inc.

PHAC: Public Health Agency of Canada

SACS: Department of Small Animal Clinical Sciences, WCVM

SK or Sask.: Saskatchewan

SCCS: Saskatchewan Centre for Cyclotron Sciences, the province’s first cyclotron and radioisotope facility

SVMA: Saskatchewan Veterinary Medical Association

Tri-Council Agencies: Consists of the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC) and the Social Sciences and Humanities Research Council (SSHRC). The Tri-Council funds are a major source of research funding for post-secondary institutions in Canada.

UGSR: Undergraduate student research

UGSSRP: Undergraduate Student Summer Research Program

UACC: University Animal Care Committee

UCVM: University of Calgary Faculty of Veterinary Medicine

U of S: University of Saskatchewan

VBMS: Department of Veterinary Biomedical Sciences, WCVM

VBMS: Veterinary Biomedical Sciences courses (U of S)

VETMICRO: Department of Veterinary Microbiology, WCVM

VETPATH: Department of Veterinary Pathology, WCVM

VIDO-InterVac: Vaccine and Disease Organization-International Vaccine Centre

VLAC: Large Animal Clinical Sciences courses (U of S)

VMC: Veterinary Medical Centre

VSAC: Small Animal Clinical Sciences courses (U of S)

VTMC: Veterinary Microbiology courses (U of S)

VTPA: Veterinary Pathology courses (U of S)

WCVM: Western College of Veterinary Medicine

WCVSA: Western Canadian Veterinary Students’ Association

YK: Yukon
Executive Summary

The mission of the Western College of Veterinary Medicine (WCVM) has always been to provide education for veterinarians in Western Canada, and our college has successfully met this goal for more than five decades. By any measure, our DVM program is extremely successful. We annually attract an impressive pool of applicants: in 2017, we received 457 applicants for 78 seats, a final applicant ratio greater than five to one. Our admissions process is working well, and 99 per cent of our veterinary students complete the program. Based on our analysis of the NAVLE scores, our DVM students are among the top 22 per cent of DVM graduates worldwide (based on those schools participating in the NAVLE). In 2017, the success rate of WCVM students entering clinical internship programs and residencies was 100 per cent and 80 per cent, respectively. The remainder of our students are going into general practice across Western Canada, and based on feedback through our employer surveys, 85 per cent of respondents are either satisfied or very satisfied with their WCVM-educated employees. WCVM students themselves are satisfied with their education, and based on their self-assessments, they are ready for the challenges of general practice. We continue to provide a broad veterinary education and produce graduates who are ready to serve the diverse range of western Canadian communities.

The WCVM is financed primarily through a five-year, shared operating agreement between the four western provinces. This partnership provides stable and predictable funding, which allows the college to manage and invest funds strategically over time to maintain a high standard of facilities, programs and human resources. We have also been able to recruit and retain an exceptional faculty, despite the challenges associated with some clinical specialties. Our geographical position has given us a phenomenal and varied caseload that is ideal for educating veterinary students, interns and residents. The WCVM’s facilities have undergone extensive renovations, and we are fortunate to be in a position where we can offer veterinary students a comprehensive education at one site without the need for additional travel costs. We continue to perform well in research and ensure that all students have a strong basis in research. Through our summer research programs, DVM students also have an opportunity to participate in research and to develop their own projects.

Our previous strategic plan was developed during a seven-year period of expansion and renovation, and the key objectives in the plan were related to completing construction projects. Our current strategic plan is focused on program enhancement and development. Through our planning and priorities, we have begun or improved multiple programs that enhance the student experience, including the following: a successful undergraduate summer scholars program; a service learning program focusing on engagement with local and rural Indigenous communities; a wellness rotation focused on the well-patient visit and responding to stakeholder and employer needs; more organized and strategic international partnerships; and student experiential learning. Our studies have indicated that recent graduates cite a lack of mentoring as a major reason for moving from their initial jobs, and we have identified a global gap in educating students about how to engage in productive mentor-mentee partnerships. To address the transition to practice, mentee training is now embedded in the curriculum, and we have engaged veterinary associations in the process.

Veterinary colleges are increasingly charged with improving education in the non-technical skills, knowledge and aptitudes. These include writing, communication and financial literacy. As an example, we created a summer writing internship and provide writing workshops to summer research students — including how to present scientific information to a general audience. Our students’ work has appeared in a variety of places, including the local city newspaper and the college’s news blog (http://words.usask.ca/wcvm/). We have worked to embrace technical advances in education. A recent gift established the BJ Hughes Centre for Clinical Learning, and our faculty are working to embed
more simulation into the curriculum at multiple levels. A major use of simulation is in core communication courses where students are placed in scenarios that emphasize learning objectives through engagement with standardized patients (trained actors).

We have a significant number of partnerships across campus — including collaborations with the colleges of agriculture, medicine and other health sciences – that address the opportunities and educational imperatives around One Health. We have launched a combined DVM-MBA program in partnership with the U of S business school. We also reached out to the University of Regina’s Faculty of Social Work to create a veterinary social work program that addresses issues such as student stress, mental and social health, learning issues, grief, interpersonal and inter-professional relationships. Our college has become a site for student practicums in social work, which again emphasizes the academic partnership between two diverse faculties in life sciences and social sciences.

Engaging under-represented communities and promoting student accessibility and inclusion are priorities for the WCVM. We are working to increase the number of Indigenous students who are accepted into the DVM program, and we fund seats in each class that are dedicated to equity for First Nations, Inuit and Métis students. We also recognize that to achieve this goal, we must reach out to younger students. Our service learning program is a true partnership with the remote Indigenous community, and as part of the service learning visit, our students visit community schools and meet with local students. The college’s highly successful summer camps also forge links with elementary and junior high school students. To reach further down the education pathway, we have funded two seats in each camp session for Indigenous students who would otherwise be unable to attend. These positive steps are part of an overall college strategy, but during this past academic year, we have become dedicated to a much more robust and encompassing program for Indigenous engagement. A formal Dean’s Advisory Committee on Indigenous Engagement is charged with enhancing our programs in four areas: student complement, faculty and staff complement, curriculum content and environment.

The WCVM’s core-elective curriculum, which was launched 10 years ago, continues to meet the needs of our students and Western Canada. Our graduating students are ready for a broad spectrum of career areas — companion animals, food animals, equine, wildlife, public service, research and industry. We have developed external partnerships and exchange programs to further expand the opportunities available to our students. We are working with education experts to develop entrustable professional activities (EPAs) that define the core competencies for graduation. We can use these tools to arc through the curriculum and identify areas of redundancy or weakness so we can make appropriate modifications. This focus on competency has also led to the development of annual competency exams that dovetail with the completion of the BJ Hughes Centre for Clinical Learning. This simulation centre provides new opportunities for instruction and a safe environment for learning and practice.

The WCVM is an exceptional college that has educated generations of veterinarians in Western Canada since its opening in 1965. We continue to embrace new specialties and new methods of educating students to ensure that we serve the needs of our students as well as the diverse needs of the veterinary profession and the communities of Western Canada.
Standard 1
Organization
Standard 1 Organization

1.1 College mission statement

The mission of the Western College of Veterinary Medicine (WCVM) is to provide veterinary education in Western Canada and to act as a centre of veterinary expertise and research.

1.2 University accreditation

The University of Saskatchewan (U of S) was established by an Act of the Legislative Assembly of the Province of Saskatchewan in 1907 and was subsequently amended in 1995. The university has been a member of Universities Canada (formerly known as the Association of Universities and Colleges of Canada) since 1915. There is no formal body that accredits universities in Canada. However, a provincial charter and a Universities Canada membership are regarded as demonstration of fully accredited status. In addition, the U of S became a member of the U15 Group of Canadian Research Universities in 2011—an organization that recognizes the 15 medical/doctoral research universities in Canada.

1.3 University structure

- See Appendix 1.3, Table A, U of S administrators (July 2017)
- See Appendix 1.3, Figure 1, University structure

1.4 College administration

- See Appendix 1.4, Table B, WCVM administrators
- See Appendix 1.4, Figure 2, WCVM organizational chart

1.5 Internal governance

The WCVM has a structure in place that allows the college’s leadership to form advisory committees in response to new issues or events that arise.

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1. In this context, education includes the following: professional undergraduate education of veterinary students; graduate education for veterinarians and biological sciences at the diploma, master’s and doctoral levels; continuing education for veterinarians; education of animal health technology students (in collaboration with post-secondary technical institutions) and extension education for the public on veterinary issues.

2. Western Canada is defined as Alberta, British Columbia, Manitoba, Saskatchewan, Nunavut, Northwest Territories and Yukon.

3. The college mission includes the provision of leadership and consultative services to the veterinary profession and the public in the following areas: the diagnosis, treatment and prevention of disease in domestic and wild animals; livestock production and management; animal welfare; the occurrence and incidence of disease in animals; and related environmental issues.

4. Part of the college’s mission is to carry out research in veterinary science — in its broad sense — on food animals, companion animals, laboratory animals and wildlife. Relevant disciplines include the clinical and biomedical sciences, comparative medicine, livestock production and management, animal welfare, public health and environmental health.
Dean's Office: The Dean's Office consists of the dean; associate dean (academic); associate dean (research); associate dean (clinical programs); chief operations and finance officer; manager (finance); two faculty research support accountants; manager (student services); manager (admissions and recruitment); executive assistant; human resources and administration officer; director (development); development officer and development assistant; two communications officers; building manager (0.75 FTE); and 6.6 FTE clerical staff. The Goodale Research and Teaching Farm (5.0 FTE), Animal Care Unit (5.0 FTE), BJ Hughes Centre for Clinical Learning (2.0 FTE), the WCVM Imaging Centre (2.0 FTE) and the college's Information Technology Services (7.0 FTE) also fall under the Dean's Office administration. The number of staff members in the Dean's Office and departmental offices is sufficient to meet the administrative needs of the veterinary college.

Faculty Committee: The WCVM Faculty Committee is responsible for the academic programs of the WCVM. A number of college committees report to the Faculty Committee at least three times per year to review college activities (please see Appendix 1.5, Table C, to view the list of committees) and to approve recommendations of the teachers' and examiners' committees with respect to student performance and promotion. Committee membership is reviewed and updated annually by the WCVM Executive Committee. Faculty members are asked to volunteer for committee memberships, and the Faculty Committee makes the final selection. Selection is primarily based on the individual's priority and on the membership needs of the respective committee. An exception is the College Review Committee which has members elected by faculty through secret ballot.

Dean, associate dean and department head appointments: The recruitment and review of out-of-scope senior leadership positions, including deans and associate deans, is led by the U of S Office of the Provost and overseen by the Board of Governors. The recruitment, review and renewal of department head positions is led by the dean in consultation with the in-scope faculty of each department. The procedures for department head recruitment and review are outlined in Article 13.6 of the U of S Faculty Association (USFA) collective agreement.

Executive Committee: The Executive Committee is the senior administrative committee of the WCVM, and its members are advisory to the dean. This committee meets monthly. Its membership includes the dean (chair), associate dean (academic), associate dean (research), associate dean (clinical programs), five department heads, and the chief operations and finance officer.

Dean's Group: The Dean's Group is comprised of the dean, associate dean (academic), associate dean (research), associate dean (clinical programs), and the chief operations and finance officer. The group is consultative and its members meet on a weekly basis to ensure that issues and opportunities affecting the college receive informational discussion and group input before any action or referral.

WCVM Student Liaison Committee: This committee consists of the WCVM Dean's Group, student services manager, the student association president and one representative from each class (Years 1 to 4). This committee meets monthly. The purpose of this committee is to communicate items of importance and provide a forum for the students and the college's administration to discuss items of concern.

VMC Oversight Committee: This committee's membership includes the dean (chair); associate dean (academic); associate dean (research); associate dean (clinical programs); the department heads of Small Animal Clinical Sciences, Large Animal Clinical Sciences, and Veterinary Pathology; and the chief operations and finance officer. Its purpose is to oversee the overall activities of the VMC to ensure that the needs of the academic program are being met, to ensure that the VMC remains financially sustainable, and to review and approve the VMC's major capital purchases and organizational changes.

Dean's Advisory Committee on Indigenous Engagement: The WCVM has recently established this committee. Its mandate is to support cultural diversity and inclusion throughout the college, specifically focusing on the Indigenous communities. For more information about this topic, refer to Standard 9.9.

For a full list of college committees, see Appendix 1.5, Table C, WCVM committee structure.

Other: Over the past seven years, the college has commissioned a number of internal reviews. As part of fulfilling their mandate, these task forces have reported their findings to the WCVM dean and faculty. Examples of these task forces will be discussed in corresponding standards.
**External governance**

**WCVM Interprovincial Agreement (IPA):** The WCVM is a regional college serving the provinces of British Columbia, Alberta, Manitoba and Saskatchewan as well as the Northwest Territories, Nunavut and Yukon. A longstanding agreement among the four provinces spells out the terms with respect to provincial enrolment quotas, residency status of applicants to the college and the cost-sharing formula for funding the regional college at the U of S.

**WCVM Advisory Council:** This council’s Terms of Reference and membership is established in the IPA. The council meets at least once a year. Its membership includes representatives from the provincial governments, the major western provincial universities, the western provincial veterinary medical associations and the Government of Canada. It also includes representatives from the U of S, the WCVM and its students. The council reviews and provides advice on college facilities, equipment and resource needs. It also provides advice on issues of entrance requirements, admissions, residency and provincial quotas. As well, the council serves an important role in providing advice to the WCVM from the perspective of external stakeholders.

**Prairie Diagnostic Services Inc. (PDS):** PDS is a not-for-profit veterinary diagnostic laboratory co-owned by the U of S and the Province of Saskatchewan. The WCVM dean is the university representative in the oversight of PDS. Its mission is to be “… a full-service diagnostic laboratory that supports the program needs of the province, the university and industry.”

**1.6 Organizational changes**

The WCVM is not planning any major changes to its organization.
Standard 2
Finances
Standard 2 Finances

The WCVM receives its operating funding to support the DVM program from three main sources: the four western Canadian provinces that support the college through a cost-sharing agreement, the VMC’s fee-for-service income and tuition. In addition, the Province of Saskatchewan supports the veterinary college’s indirect costs.

The WCVM’s current Interprovincial Agreement (IPA) ended on April 30, 2017. That agreement contains a clause that allows for the continuance of college operations until 2020. The WCVM will continue to receive a two per cent increase to its interprovincial revenue base until a new agreement is reached. Discussions on a new agreement are underway.

Over the past five years, the WCVM has accumulated a budgetary deficit that it has asked to have reinstated in the new agreement. The college has also asked the provincial partners to fund modest program enhancements that will support new positions in the veterinary college. If a reasonable settlement of the IPA is achieved, the WCVM will be on firm financial footing for a number of years. In the meantime, the college has considered some back-up plans should IPA negotiations not be as fruitful as anticipated. Revenue-generating initiatives would include increasing student numbers, operating Indigenous student programs and increasing tuition along with other options.

2.1 WCVM expenditures and revenues

Tables A and B reflect stable or increased revenues over the past five years as well as a corresponding increase in expenditures. The major source of revenues — funding from the western provinces (as dictated by the IPA) — provides predictable revenue that allows us to take a steady approach to planning. Overall revenues have increased by 13.46 per cent, while expenditures have increased by 12.52 per cent.

For new faculty, we offer competitive start-up packages for initial operating, equipment and graduate student stipend funding. We also offer matching funds for Canadian Foundation for Innovation and Tri-Council research grants where appropriate. New faculty are also given priority for receiving summer research student support. See Standard 8.3 for more information.
### Table A Total expenditures for the immediate past five fiscal years

<table>
<thead>
<tr>
<th>Year</th>
<th>Instruction</th>
<th>Academic support</th>
<th>Student services</th>
<th>Teaching hospital</th>
<th>Diagnostic lab</th>
<th>Other</th>
<th>Unsponsored student aid</th>
<th>Sponsored student aid</th>
<th>Sponsored research</th>
<th>Other sponsored activity</th>
<th>Extension &amp; public service</th>
<th>Total direct expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13</td>
<td>17,959,767</td>
<td>2,804,127</td>
<td>24,527</td>
<td>9,412,174</td>
<td>n/a</td>
<td>1,521,579</td>
<td>252,061</td>
<td>1,542,195</td>
<td>11,329,699</td>
<td>1,630,153</td>
<td>307,900</td>
<td>46,784,182</td>
</tr>
<tr>
<td>2013/14</td>
<td>20,571,859</td>
<td>3,162,186</td>
<td>23,103</td>
<td>10,922,416</td>
<td>n/a</td>
<td>1,592,839</td>
<td>303,840</td>
<td>1,539,566</td>
<td>9,768,196</td>
<td>1,047,834</td>
<td>263,000</td>
<td>49,194,839</td>
</tr>
<tr>
<td>2014/15</td>
<td>23,772,638</td>
<td>3,153,270</td>
<td>20,649</td>
<td>12,220,100</td>
<td>n/a</td>
<td>1,654,241</td>
<td>361,685</td>
<td>1,621,177</td>
<td>12,271,308</td>
<td>1,843,273</td>
<td>222,269</td>
<td>57,140,610</td>
</tr>
<tr>
<td>2015/16</td>
<td>22,867,869</td>
<td>3,004,592</td>
<td>70,605</td>
<td>16,088,294</td>
<td>n/a</td>
<td>2,016,260</td>
<td>374,791</td>
<td>2,441,591</td>
<td>12,385,282</td>
<td>1,986,353</td>
<td>260,091</td>
<td>61,495,728</td>
</tr>
<tr>
<td>2016/17</td>
<td>21,237,493</td>
<td>3,207,911</td>
<td>47,705</td>
<td>12,770,812</td>
<td>n/a</td>
<td>1,546,207</td>
<td>445,708</td>
<td>1,705,490</td>
<td>9,612,089</td>
<td>2,136,064</td>
<td>280,000</td>
<td>52,989,479</td>
</tr>
<tr>
<td>% Change</td>
<td>18.25</td>
<td>14.40</td>
<td>94.50</td>
<td>35.68</td>
<td>n/a</td>
<td>1.62</td>
<td>76.83</td>
<td>10.59</td>
<td>-15.16</td>
<td>31.03</td>
<td>-9.06</td>
<td>13.26</td>
</tr>
</tbody>
</table>

### Table B College revenue from all sources for the immediate past five years

<table>
<thead>
<tr>
<th>Year</th>
<th>Provincial appropriation</th>
<th>Tuition and Fees</th>
<th>Is tuition estimated?</th>
<th>Endowment income (current yr.)</th>
<th>Gifts for current use</th>
<th>Sponsored programs/ cost recovery</th>
<th>Other</th>
<th>Teaching hospital</th>
<th>Diagnostic lab</th>
<th>Other rev. from S &amp; S</th>
<th>Reserves and transfers</th>
<th>Total Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13</td>
<td>24,963,630</td>
<td>2,541,603</td>
<td>Yes</td>
<td>3,029,027</td>
<td>1,648,697</td>
<td>9,531,450</td>
<td>583,233</td>
<td>6,284,066</td>
<td>n/a</td>
<td>1,906,596</td>
<td>221,666</td>
<td>50,709,978</td>
</tr>
<tr>
<td>2013/14</td>
<td>25,277,212</td>
<td>2,761,600</td>
<td>Yes</td>
<td>4,937,869</td>
<td>759,384</td>
<td>13,562,532</td>
<td>677,904</td>
<td>6,863,573</td>
<td>n/a</td>
<td>1,592,791</td>
<td>262,570</td>
<td>56,695,435</td>
</tr>
<tr>
<td>2014/15</td>
<td>25,956,853</td>
<td>2,879,800</td>
<td>Yes</td>
<td>4,260,361</td>
<td>1,460,765</td>
<td>12,414,105</td>
<td>694,306</td>
<td>7,687,142</td>
<td>n/a</td>
<td>1,630,964</td>
<td>176,657</td>
<td>57,160,953</td>
</tr>
<tr>
<td>2015/16</td>
<td>26,386,515</td>
<td>3,054,000</td>
<td>Yes</td>
<td>(502,087)</td>
<td>1,403,185</td>
<td>10,527,499</td>
<td>1,048,893</td>
<td>8,287,946</td>
<td>n/a</td>
<td>1,748,885</td>
<td>110,970</td>
<td>52,065,806</td>
</tr>
<tr>
<td>2016/17</td>
<td>26,946,440</td>
<td>3,234,200</td>
<td>Yes</td>
<td>4,302,551</td>
<td>1,209,593</td>
<td>10,348,722</td>
<td>783,880</td>
<td>8,950,427</td>
<td>n/a</td>
<td>1,329,272</td>
<td>428,245</td>
<td>57,533,330</td>
</tr>
<tr>
<td>% Change</td>
<td>7.94%</td>
<td>27.25%</td>
<td>42.04%</td>
<td>-26.63%</td>
<td>8.57%</td>
<td>34.40%</td>
<td>42.43%</td>
<td>-30.28%</td>
<td>93.19%</td>
<td>13.46%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table A: Comments

Instruction: Expenditures in the “Instruction” category have been steady and consistent over the five-year period. Increases in the 2014-15 and 2015-16 years include transfers from our operating funds to “Designated Funds.” We established this category to allow units to set aside funding for individual projects (usually capital in nature). This total also includes funds for non-Canadian fellowships and internship stipends.

Academic support: Funding has been stable over the five-year period.

Student services: These expenditures only include non-salary costs related to the college’s admissions program (mostly travel costs). Some student services staffing costs are included in the “Academic support” category and the “Instruction” category.

Veterinary Medical Centre: Expenditures have risen steadily, matching the increases in VMC revenues. The year 2015-16 reflects transfers to designated funds for equipment as well as the new animal cancer centre project.

Other: This category includes ancillary spending in the college’s fee-for-service units such as the veterinary endocrinology laboratory and the WCVM Imaging Centre. It also includes research wing support, lectureship support and the spendable amount from the endowed Dean’s Fund as well as other non-academic activities that do not directly support the DVM program, the research program or other core programs. This category includes faculty fee-for-service funds, special projects, and some individual continuing education projects.

Unsponsored student aid: Expenditures in this category have increased by 77 per cent for scholarships, bursaries and awards for students.

Sponsored student aid: This category is mostly made up of funds for Interprovincial Graduate Student Scholarships and Fellowships. It also includes university-funded scholarships and awards.

Sponsored research: See Standard 10 (Research) for more details.

Other sponsored activity: This category includes operating budget support for the Goodale Research and Teaching Farm, Animal Care Unit and some capital equipment expenditure transfers.

Table B: Comments

Provincial appropriation: This category encompasses the main source of revenue for the WCVM. It has been increasing and is a stable source of revenue.

Tuition and fees: This category has increased by five per cent per year over the past five years. Tuition for the 2016-17 academic year was $9,934.

Endowment income: This category has increased by 42 per cent. For the 2015-16 year, a downturn in investment revenue resulted in an overall loss of approximately $500,000.

Gifts for current use: These revenues are essentially made up of annual donations to student award and research support funds.

Sponsored programs: See Standard 10 (Research) for more information.

Veterinary Medical Centre: The teaching hospital’s revenues have increased by 42 per cent over the five-year period. This growth in revenue is due to fee schedule increases, increased caseload, new services and improved billing efficiencies.

Other revenues from sales and services: The major source of revenues in this category is fee-for-services revenue brought in by faculty members. This revenue supports their expenses such as research costs and travel. The category also includes a few small cost-recovery units such as the veterinary endocrinology laboratory and the WCVM Imaging Centre.
2.2 Strengths and weaknesses in revenues over the past five years

Strengths

Over the past five years, the WCVM has been on solid, predictable financial footing. The IPA has provided an increase to college revenues of two per cent each year for the five-year term of the agreement. As part of the 2012-17 IPA negotiations, the provincial partners asked the WCVM to manage a deficit budget over the five-year period without jeopardizing the college's accreditation standing. We were quite successful in meeting that challenge by reducing costs, raising additional student revenue and raising VMC revenue. Vacancies in positions occurred each year, and that factor helped us to keep our books balanced.

Any surpluses achieved through operations of the college are retained in the college. We are able to use these funds to upgrade facilities, renew equipment, hire sabbatical replacement faculty and meet other one-time costs. The WCVM maintains a reserves fund that is adequate to meet extraordinary costs. In addition, the WCVM has two large endowment funds — the Dean's Fund and the WCVM Research Trust Fund — to help bridge operations and provide funding for research staffing, operating, infrastructure and new faculty start-up. The Research Trust Fund also supports project seed money, bridging support and other investments in the research enterprise.

VMC client revenue continues to be strong without compromising the teaching program. The college recognizes the importance of not relying on this source of revenue alone. The VMC also maintains a reserve (contingency) fund and an equipment replacement fund that helps to renew facilities and equipment. In an emergency, these funds are also available for use in extraordinary circumstances such as equipment repairs or staffing requirements.

The establishment and subsequent expansion of the WCVM's Development Office has proven beneficial in supporting capital projects such as the new BJ Hughes Centre for Clinical Learning and the Rae-Dawn Arabians Equine ICU and Foal Centre. The Development Office continues to prioritize initiatives such as student scholarships and bursaries. The office also provides development support for the college's internal research funds, including the Companion Animal Health Fund and the Townsend Equine Health Research Fund, and it provides support for faculty chairs and other initiatives.

Weaknesses

The main weakness in WCVM operating revenues is that revenue increases have not kept up with expenditure increases — particularly in areas such as faculty and staff salaries. The college's longer-term strategy includes growing revenues through options such as the funding of new programs, the expansion of existing development opportunities and the possibility of increasing tuition.

While the predictability of operating funding through the IPA facilitates strategic planning, the long-term sustainability of the college will also require adequate levels of operating funding from provincial partners.

The current IPA does not provide operating funds for capital expenses or major equipment purchases. We have addressed this issue by using accumulated surpluses when available, to access campus funding opportunities and revenues generated through our development program.

At this time, the college does not offer any non-DVM undergraduate degree programs.

2.3 Trend analysis of revenue supporting the professional program

The following figure (Standard 2.3, Figure 1) shows the three primary revenue streams (funding from the four western provinces, VMC fee-for-service income and student tuition) that have supported the DVM program over the past five years. The graph also includes revenue from tuition.

This budget has increased steadily over the past five years due to an annual escalator of two per cent that is provided through the most recent IPA. In addition, the WCVM has increased its overall revenues through development revenue, interest income, a modest growth in tuition, a steady increase in VMC revenues, and the acceptance of additional fourth-year DVM students.
Assuming a successful renegotiation of the next IPA, we expect a steady, identified increase to our main revenue source. Although we expect the VMC revenues to continue growing, we anticipate that it will be at a more modest rate. Note: The 2017–18 IPA allocation is confirmed at a rate of two per cent over the 2016–17 allocation.

2.4 Impact of revenues on teaching and support services

Having the operating revenues set out through our interprovincial funding agreement has allowed the WCVM to do predictive modelling and make necessary adjustments to ensure that it provides a high quality, contemporary teaching program. Over that time period, we have managed the finances by reducing expenditures wherever possible and increasing revenues wherever possible (through additional students, development activities and other sources). We continuously review funds to ensure that they meet the needs of the college.

The maturing of the WCVM’s development program has allowed for the introduction of new technologies and teaching methodologies. The WCVM Development Office has raised funds for projects such as the BJ Hughes Centre for Clinical Learning which support the facility’s capital expenditures as well as some of its operating expenditures.

The college expects stable, predictable funding over the next few years from its existing sources — presuming the satisfactory completion of the next IPA. Development revenue opportunities should continue and grow. Trust funds are managed for growth and will continue to allow for flexibility and stability during more difficult periods.
2.5 **VMC income and operating costs**

### 2.5 Table C VMC revenue compared to expenditures

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VMC expenditures</td>
<td>9,412,174</td>
<td>10,922,416</td>
<td>12,220,110</td>
<td>16,088,294*</td>
<td>12,770,812</td>
</tr>
<tr>
<td>VMC revenue</td>
<td>6,284,066</td>
<td>6,863,573</td>
<td>7,687,142</td>
<td>8,287,946</td>
<td>8,950,427</td>
</tr>
<tr>
<td>Percentage of revenue to expenditures</td>
<td>66.8</td>
<td>62.8</td>
<td>62.9</td>
<td>51.5</td>
<td>70.1</td>
</tr>
</tbody>
</table>

* Reflects transfers of VMC operating funds to VMC capital funds

The above table outlines the amount of VMC expenditures funded through VMC revenue proceeds. The percentage remains in the 63 per cent to 70 per cent range — ensuring that clinical services function as instructional resources. The 2015–16 expenditure is skewed upward due to non-operating transfers made to capital funds in that fiscal year. In the future, we expect to maintain the percentage of revenue to expenditures in the 63 per cent to 70 per cent range.

2.6 **Anticipated trends in future revenues and expenditures**

With the successful negotiation and signing of a new IPA, the college's revenues should be stable and predictable — a real benefit during uncertain times for the funding of post-secondary education institutions. This should not place undue pressure on VMC revenues and tuition fees — two other sources of revenue that we expect to increase as in previous years. Through our development program, it is anticipated that some of our endowed trust funds will provide stability to our operations funding as well as to one-time funds for new initiatives at the WCVM.

On the expenditure side, it is expected that favourable collective agreement settlements with unions during the next few years will enable the college to better match expenditure increases with revenue increases.

Overall, as we begin developing the college's next strategic plan, we anticipate adequate resources to continue implementing program enhancements and new initiatives.
Standard 3
Physical Facilities and Equipment
Standard 3 Physical Facilities and Equipment

The activities of the WCVM take place almost exclusively within the one college building situated on the U of S campus in the city of Saskatoon. From 2004 to 2011, the college underwent an $80 million-expansion project that included the construction of a new research wing, an expanded medical centre and a new veterinary diagnostics laboratory complex. The project also enhanced existing clinical, teaching and research areas by renovating more than a third of the original veterinary college. This infrastructure program, which was financed by federal and provincial governments as well as the U of S, was part of a national initiative to upgrade all veterinary colleges across Canada. In the past six years, the WCVM has continued to improve aspects of the building (estimated cost of $5 million), and in particular, the college has upgraded every space primarily used by its veterinary students. The WCVM building is approximately 32,240 square metres (344,023 square feet) in size.

3.1 Use of college facilities

The WCVM facilities are used to meet the needs of the DVM program, the graduate program and the faculty academic program as well as the needs of other services provided at the college (VMC and PDS). Since the last accreditation visit, the following initiatives have been completed:

- All lecture theatres and classrooms (large and small) have been fully upgraded
- The library has been totally remodelled to include a large and secure student learning commons and study area (designed using student input)
- The student “buffeteria” (lunch and meeting space) has been renewed
- Public collaborative spaces have been included in new building construction
- The BJ Hughes Centre for Clinical Learning has been completed
- The large animal housing pens at the rear of the college are undergoing complete renovation. So far, about 50 per cent of the space has been resurfaced and refenced. New animal shelters have been built
- Locker rooms renovation
- Ryan-Dubé Equine Performance Centre
- Rae-Dawn Arabians Equine ICU and Foal Centre
- Graduate student space renovation
- Teaching dog housing facility
- Distance education and video conferencing rooms

Since the end of the expansion, the college has continued to renew and reallocate spaces in the building to ensure that we are meeting the space needs of students, faculty and staff. Future plans include developing or refurbishing additional office, meeting, laboratory and clinical spaces.

See Appendix 3.1, Figure 1, to view the location of the WCVM building on the U of S campus. The on-campus facilities listed below are all easily reached on foot. Parking is available immediately adjacent to the building, and final-year veterinary students are guaranteed a parking space. Students in Years 1 to 3 can apply for a space through the university’s parking “lottery” system. Bicycle parking is available outside the college and there is a major transportation hub on campus. If students are working late, they can call the U of S Security Office and have a security officer accompany
them to their vehicle. The risk of safety-related incidents at the U of S is very low. The WCVM building itself is locked after 6 p.m. and on weekends. Veterinary students are issued a key to the building and the learning commons area to allow for 24-hour access.

The WCVM’s main building was officially opened in 1969, with a second phase completed in 1981. Since 2004 the building has undergone a series of expansion and upgrade projects with renovations continuing up to the present day. The college’s facilities also include four buildings that are located directly behind the college with the animal pens to the north. In addition, the WCVM oversees the college’s beef cattle, deer and bison herds at the Goodale Research and Teaching Farm. These facilities meet all of the undergraduate program’s core educational experiences with the exception of the core communication program that uses the Clinical Learning and Resources Centre (CLRC) in the U of S Health Sciences — a 10-minute walk across campus.

**WCVM main building**

This building is where most of the activities and functions of the WCVM take place. It contains all of the lecture theatres, small classrooms and meeting rooms required to deliver the DVM program and graduate programs:

- Veterinary Medical Centre
- teaching, diagnostic and research laboratories
- Prairie Diagnostic Services Inc.
- veterinary library
- student lounge and student learning commons
- offices of faculty and staff who deliver our programs
- clinical and support services
- administrative offices
- Animal Care Unit

**Other facilities located adjacent to the WCVM building**

The Bovine Teaching Unit (BTU) is used for palpation laboratories and medical/surgical exercises. Next to the BTU is the Reproduction Centre — a building that is primarily used for semen evaluation in bulls and reproduction-related clinical teaching. The Ryan/Dubé Equine Performance Centre is used for teaching, research and service-related activities. It includes a longeing arena, an equine standing MRI unit, a high-speed treadmill, an indoor paved runway and a computerized force plate. The new Facility for Applied Avian Research was completed in 2016 and is now in use. Just north of the WCVM building is a large divided paddock area (2.8 hectares or 6.9 acres in size) that’s used to keep teaching and research animals. The ACU staff manage this area which is accredited by the University Animal Care Committee. The Goodale Research and Teaching Farm is located about 10 miles (16 km) southeast from the WCVM building.

The WCVM also has access to a number of research facilities and national organizations on campus. Please see Standard 11.3.a for more information.

### 3.2 Area maps

- See Appendix 3.1, Figure 2, WCVM area maps
- See Appendix 3.1, Figure 1, U of S area map
3.3 College’s safety plan and facilities management plan

The U of S Protective Services and Safety Resources (PSSR) unit oversees safety measures on the campus. This unit, along with the college, is responsible for ensuring physical/personal, biological, chemical and radiation safety. The unit also ensures that appropriate protocols are followed. The WCVM works closely with PSSR to ensure compliance with provincial and federal regulations on health and safety matters. PSSR also provides compulsory safety training for all employees and summer students. The U of S has an Occupational Health and Safety Committee for the campus. This committee serves as an umbrella organization for the veterinary college’s Local Safety Committee that reports on and investigates any safety issues brought to the committee’s attention.

PSSR is responsible for registering biosafety or radiation permits for laboratories and researchers where there is a biological or radiation risk (note: PSSR classifies the VMC and PDS as laboratories and considers that classification for permits). Biosafety training is required and provided to research personnel. Appropriate protocols must be provided as part of the grant approval process and before grant funds can be spent. PSSR maintains training logs and provides notice for refresher courses and training renewal. Information on training can be found at http://safetyresources.usask.ca. Each WCVM department maintains records of their members and the training courses they have taken.

Biosafety permits mainly apply to research laboratories. However, the U of S considers the VMC and PDS as laboratories that operate under a Risk Group Level 2 Permit. This permit (U of S permit #VMC-001) includes allowance for operational Level 3 — a requirement when dealing with case material where a Risk Group 3 pathogen is suspected. The permits are completely re-evaluated and renewed every five years, but they may be amended as needed with approval by the University Biosafety Approval Committee. In addition, PSSR oversees radiation safety for the following equipment in the VMC: digital X-ray units, computed tomography (CT), fluoroscopy, the nuclear scintigraphy unit, linear accelerator and the radioactive iodine therapy ward.

In addition, the VMC has its own Infection Control Committee that’s responsible for maintaining the University Biosafety permit and overseeing biosecurity issues within all aspects of the VMC. The committee members also review and update the VMC Infection Control Manual.

The WCVM’s building is overseen by the building manager who has held the position for nine years. The building manager is a laboratory technologist who has also earned her designation as a Facility Manager Professional through the International Facilities Manager Association. In addition the building manager has taken training in occupational health and violence threat risk assessment and has completed various safety training courses through the U of S.

Emergency response: The WCVM has a documented fire safety program in place as part of its Emergency Response Plan (ERP). The plan also includes topics such as flood, evacuation, lockdown, violence, severe weather, bomb threats and others. The university’s PSSR arranges the veterinary college’s annual fire drill. A copy of the college’s ERP will be available on site.

Rabies: The college offers a rabies vaccination program for all students, faculty and staff. This program includes monitoring serological titres and organizing vaccination clinics.

The VMC is accredited with the American Animal Hospital Association (AAHA). Every five years the VMC is fully inspected by the Saskatchewan Veterinary Medical Association (SVMA) under the authority of the Saskatchewan Veterinary Act. The facility meets all the rigorous practice standards (https://www.svma.sk.ca/uploads/pdf/Practice_Standards_Guidelines_2014.pdf) as laid out by the SVMA. The last inspection occurred in 2015.

3.4 Adequacy of the college’s facilities

The WCVM facilities are well maintained and are more than adequate to deliver the DVM program. The facilities staff at the veterinary college continuously review the facilities for opportunities to upgrade and/or change the use of spaces to support the college’s mission. Two years ago, we began an initiative to set aside funds for specific projects, for college renovations and for equipment replacement — particularly in the VMC. The WCVM annually reviews its funds to replenish these capital funds for future projects and equipment purchases. For 2017-18 the college has allocated $500,000 for building upgrades and renewal.
The WCVM receives good day-to-day building support services as well as reasonable, ongoing repairs and maintenance of the facilities from the U of S Facilities Management Division.

**Classrooms, teaching laboratories, seminar rooms and other teaching spaces**

These spaces are sufficient in number and size. They are well maintained and equipped to deliver the DVM program, and most of them have been recently upgraded. The recent completion of the BJ Hughes Centre for Clinical Learning adds a complementary capability that will enhance student teaching and learning for years to come. Expansion plans include meeting room spaces that will add to the number of rooms available to support the teaching program (rounds, for example).

**Veterinary Medical Centre**

The VMC (including pharmacy, diagnostic imaging, diagnostic support service, isolation facilities, intensive/critical care, necropsy facilities and ambulatory field service vehicles) develops annual improvement plans for the hospital’s facilities, equipment and teaching needs. The list of recent equipment improvements includes the following:

- a new picture archiving and communications system (PACS), used for teaching modules
- ultrasound units, digital X-ray equipment, viewing monitors, console upgrades to the MRI unit and other enhancements to medical imaging
- new anesthetic machines and numerous surgical instruments
- ophthalmology optical coherence tomography
- new endoscopes and towers
- pneumatic bovine lift table
- new field service vehicles equipped with Bowie boxes (mobile veterinary clinics)
- automated pharmaceutical inventory and control drug dispensing system throughout the VMC. In addition, the hospital updates the reference libraries within the hospital’s clinical areas.

**Pharmacy:** The pharmacy is staffed by one full-time and four part-time licensed pharmacists working in a facility that supports the entire hospital. The automated dispensary units are located throughout the hospital and are accessible 24 hours a day. This system also provides access to all medications after regular hours. The system tracks all medications according to the individual who accessed them and the patient case number. In addition, the recording sheet attached to each vial of controlled substances ensures that we meet all federal, provincial and SVMA regulations relating to the control and dispensing of controlled substances. The pharmacists are also responsible for the preparation and oversight of the use of cytotoxic drugs with the specifically designated cytotoxic drug facility.

**Diagnostic imaging:** The VMC’s diagnostic imaging unit is completely digital and includes radiography, an MRI unit, CT unit, equine standing MRI unit, nuclear scintigraphy and ultrasound equipment. The WCVM uses PACS for image storage and retrieval. The diagnostic imaging service includes three faculty and four staff members. The college is also working on plans to develop a PET-CT unit. With secure funding for this initiative, we expect to begin construction on this project in the fall of 2017.

**Diagnostic support services:** Located in the WCVM building, PDS is a full-service veterinary diagnostic laboratory with necropsy, clinical pathology, microbiology, virology, parasitology, immunology and toxicology divisions.

**Animal Care Unit**

All research and teaching animals are housed and cared for by the ACU. The operation of this facility and the issuance of permits for animal use are under the oversight of the university veterinarian and the University Animal Care Committee (UACC). Visit [http://policies.usask.ca/policies/research-and-scholarly-activities/care-and-use-of-animals-in-research.php](http://policies.usask.ca/policies/research-and-scholarly-activities/care-and-use-of-animals-in-research.php) for more information.
Goodale Research and Teaching Farm

The Goodale Farm plays a significant role in graduate student teaching. Some DVM teaching takes place at the farm. This facility is accredited by the University Animal Care Committee.

3.5 Protocols for isolation facilities

The VMC has six separate isolation facilities. Two isolation stalls for food animals are located at the end of the food animal ward, and two isolation stalls are located at the end of the equine ward. Clinical staff manage scouring calves in a separate isolation ward. There is also an isolation facility adjacent to the Small Animal Clinic. The standard operation protocols for the facilities are outlined in the VMC Infection Control Manual and are posted in the facility. All staff working in these facilities are trained in their use, and all senior veterinary students receive mandatory training in their use as part of the final-year safety orientation program.

3.6 Current plans for improvement

The veterinary college has committed to the following construction projects:

One Health imaging and oncology expansion: This project includes construction of faculty offices, meeting rooms and graduate student spaces. Funding for this initiative has been secured and planning is well underway (estimated cost of $3 million).

WCVM PET-CT suite: This resource will complement existing facilities on campus such as the Saskatchewan Centre for Cyclotron Sciences. The addition of a second PET-CT unit on campus will expand research in areas that will ultimately benefit human and veterinary patients. Funding for this facility has also been secured and planning has begun. The WCVM has submitted a grant application for the purchase of the PET-CT itself (estimated cost of $4 million).

Animal cancer centre: This new centre will bring together a multi-disciplinary team of people including veterinary and human medicine specialists in medical and radiation oncology, comparative cancer biology, medical imaging, surgery and pathology as well as students in undergraduate, graduate and professional health sciences programs at the U of S. The new centre will provide specialized care for animals diagnosed with cancer. It will also help researchers develop new tools for diagnosing and treating cancer in animal and human patients (estimated cost of $18 million).

Livestock and Forage Centre of Excellence: The new centre will unite all areas of livestock and forage research — including the Goodale Research and Teaching Farm — under a single complex of field laboratories and science labs (estimated cost of $38 million).

Flight pens and observation deck: These facilities complement the new Facility for Applied Avian Research (FAAR) and also support activities conducted by the student organization, Wild and Exotic Animal Medicine Society (WEAMS). The estimated cost is $419,000.

Clinical research multi-user laboratory: The WCVM is renovating existing second-floor clinical department laboratories to create a large multi-user research facility (estimated cost of $2 million).

Video conferencing: The WCVM is renewing and expanding its video conferencing facilities (estimated cost of $500,000).

WCVM building renovations and upgrades: The college continues to update and repurpose spaces as opportunities arise (estimated cost of $640,000).
Accessibility and accommodations

In the last few years, we have made several facility improvements to address disability-related issues among our students, faculty, staff and visitors. Two of our faculty members have been confined to wheelchairs, and in these instances, we have worked directly with the individuals to accommodate their mobility issues. Several of our students have disabilities, and once they register with the U of S Disabilities Students Services Office, the college works directly with the student and the U of S office to determine and develop the necessary accommodations.

In addition, several students have experienced the challenge of attending courses and nursing babies. To accommodate their needs, we have made rooms available for nursing and have added changing facilities in several of the college’s washrooms. We continue to adapt our facilities to meet all of the needs of our students, faculty and staff.
The WCVM VMC is in a fortunate position with respect to caseload. We operate the only 24-hour emergency small animal clinic in the city of Saskatoon (population 250,000). We are also the only referral centre in the province of Saskatchewan, and since the region’s other veterinary referral centres are in Winnipeg, Edmonton and Calgary, we are responsible for providing service to a large population of all types of animals. We are particularly fortunate to maintain a significant percentage (about half) of first-opinion cases (see below) in all aspects of the VMC despite the large number of small animal clinics in Saskatoon. This distribution of cases is vital for educating veterinary students for entry to practice, providing them access to the routine cases typically seen in private practice as well as exposure to more complex referral cases — especially in the Small Animal Clinic.

### WCVM VMC in-clinic caseload divided by referral versus first opinion

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<tbody>
<tr>
<td><strong>Small Animal Clinic</strong></td>
<td></td>
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<tr>
<td>First opinion Cases (excluding wellness visits)</td>
<td>6,954</td>
<td>5,774</td>
<td>6,119</td>
<td>6,215</td>
<td>6,698</td>
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<tr>
<td>Wellness visits (cats)</td>
<td>206</td>
<td>356</td>
<td>344</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>Wellness visits (dogs)</td>
<td>440</td>
<td>702</td>
<td>723</td>
<td>812</td>
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<tr>
<td>Referral</td>
<td>5,692</td>
<td>6,432</td>
<td>7,559</td>
<td>8,230</td>
<td>8,827</td>
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<tr>
<td><strong>Large Animal Clinic</strong></td>
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<tr>
<td>First opinion</td>
<td>1,149</td>
<td>985</td>
<td>932</td>
<td>935</td>
<td>990</td>
</tr>
<tr>
<td>Referral</td>
<td>209</td>
<td>210</td>
<td>209</td>
<td>244</td>
<td>227</td>
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* Number of wellness visits (cat/dog) wasn’t recorded until 2013 when the WCVM wellness service was established.

The VMC caseload is more than sufficient for our teaching needs. As a result, we do not require any of our students to take any external clinical rotations in the final year. However, we do partner with external practices and institutions to provide a small number of specialist educational opportunities — such as aquaculture — that can’t be offered in Saskatoon. In addition, students may arrange to do an externship that lasts a maximum of four weeks (two sets of two-week blocks) in another practice. These externships require a faculty adviser and must be pre-approved by the Fourth-year Teachers Committee (See Standard 9).

The WCVM is based in the middle of the Canadian Prairies where agriculture is a major industry. Saskatchewan represents 44 per cent of Canadian agricultural land with a strong arable and livestock section of the economy. The U of S College of Agriculture and Bioresources operates a large dairy barn, a beef cattle feedlot and a cow-calf operation. In addition, the university is involved in the operation of research facilities for swine and poultry. The WCVM provides veterinary services for all of these food animal facilities, and the college’s faculty members are also available as teaching resources. Our field service covers a radius of approximately 60 km (37 miles) around the city of Saskatoon. This area includes a number of cow-calf operations as well as dairy, swine and poultry barns. The immediate area around the city is a growing acreage community with many horses and some "pets/livestock." In addition to the acreage-based equine client work, our horse clientele includes three large equestrian centres, three large breeding...
operations and the local racetrack. We are fortunate that there is almost no competition for equine clinical service in the area, and we have only two other local practices offering bovine clinical services.

Thanks to the regional nature of our college, we have developed partnerships with people and organizations across the four western provinces. With their help, we can provide our students with specific clinical experiences that can’t be found in the immediate area.

The changing economics of cattle production has had a profound impact on the food animal in-clinic caseload. There are fewer, larger farms, and much of the casework has moved to the ambulatory setting. This change is mirrored in private practice across the Prairie provinces. To provide teaching opportunities, we continue to work in partnership with local veterinary practices so we can visit some of their clients for teaching purposes. This arrangement allows us to have access to swine, dairy, sheep and goat operations that supplement our teaching program. It is an extremely valuable arrangement for teaching development, but its numbers are not directly reflected in the summary tables.

### 4.1 Species trends for VMC caseload

The VMC continues to see increases in all aspects of its small animal clinic caseload with notable increases in canine, feline and exotic animal cases (see Appendix 4.1, Figure 1). In the VMC’s large animal clinic, the equine caseload is stable, but the in-clinic bovine caseload is variable and reflects the current situation in food animal practice. The field service (ambulatory) caseload remains robust. Although the service experienced a significant reduction in the number of bovine cases from 2012 to 2014, the total number of calls didn’t change. During this time period, changes in the federal government’s community pasture system, changes in our faculty complement and changes in reporting actual cases versus herd size contributed to the decrease in our cattle case numbers. However, these events have not affected the quality of our teaching program and learning outcomes. The caseload is further broken down by clinical service unit in Appendix 4.1, Table A.

The number of equine calls remains strong, robust and stable. The “other” category for field service calls includes camelids and cervids. The VMC has not offered a specific swine health service for a number of years, and as a result, the college uses several different options for teaching swine health.

The field service serves a clientele typical of Western Canada. As Table B and Table C illustrate (Appendix 4.1), most of the examined animals come from a small number of operations that are formally enrolled in a herd health program or receive regular visits from the VMC field service. Consequently, our well-balanced caseload gives veterinary students plenty of educational opportunities with the ideal balance of routine/herd health and ad hoc/urgent and emergency calls.

### 4.2 Adequacy and use of animals in the teaching program

The VMC caseload is more than adequate, and its diversity is generally reflective of the caseload seen in veterinary practices across Western Canada. Our caseload is a mixture of first-opinion cases from the Saskatoon area as well as referral cases from across Saskatchewan and Western Canada. We ensure that students see cases as outpatients, hospitalized patients and patients in a field setting. See Appendix 4.2, Table F for a breakdown of caseload by clinical service specialty.

It is vital to maintain the first-opinion caseload, and we have taken specific measures to support this area of the practice through the development of two rotations: the small animal wellness rotation focuses on the well-patient visit with emphases on vaccination and preventive care while the small animal elective surgery rotation focuses on routine spay and neuter surgeries. The VMC’s small animal clinic also offers out-of-hours emergency service for the city of Saskatoon and surrounding area. This service provides cases ranging from simple urgent cases that only require advice to cases that require emergency surgery or advanced care in the small animal ICU. Our busy field service provides ample opportunity for first-opinion large animal practice. These experiences ensure that our graduating students are ready for general practice, are knowledgeable about common conditions as well as uncommon disorders, and are well prepared for referral or for careers focusing on more specialization.

Our food animal caseload reflects the realities of food animal practice in Western Canada. Consolidation is happening in all aspects of agriculture: while the livestock numbers are maintained, the number of farming operations has
declined. Producers and their employees deal with much of an operation’s routine animal care and illnesses using protocols developed by herd veterinarians. Very few food animals are ever transported anywhere for care and most veterinary services are performed on the farm. Food animals brought to the VMC’s large animal clinic are typically from small acreages, or they are cattle with lameness issues or high-value breeding stock.

In addition to the VMC’s caseload, the WCVM maintains five groups of teaching animals: approximately 60 dairy cows, two bulls, 25 mares, two stallions, 12 dogs and eight cats. In addition, we bring in a group of 15 pigs for about one week per year. These animals are used in teaching laboratories in all four years of the DVM curriculum, and their teaching use is approved and monitored through the U of S Committee on Animal Care and Supply.

4.3 Unique educational resources or programs

All third-year veterinary students participate in at least one of the Saturday wellness clinics at the VMC’s small animal clinic. Under the supervision of wellness clinicians, the students take histories, perform physical examinations and immunize dogs and cats. The clinics also provide the students with opportunities to interact with the pet owners.

Small animal: In 2013 we developed a fourth-year wellness rotation that focuses on the “well patient” visit. The rotation addresses vaccinations, parasite control, nutrition, routine preventive health care and geriatric care. It’s also an opportunity for students to focus on client communication and cultural diversity.

The elective surgery rotation focuses on spay and neuter surgeries for dogs and cats. The students have complete responsibility for all aspects of each case from admission to post-discharge follow-up. It is a vital rotation that develops surgical skills and core competencies.

In 2013 the WCVM developed the remote service learning rotation as a unique educational experience that’s offered twice a year. The rotation is based around a multi-day visit to an under-served Indigenous community in northern Saskatchewan. During their stay, the team of students, faculty and animal health volunteers provides the community with companion animal veterinary services and operates a spay-neuter clinic. In addition to the veterinary experience, the rotation provides senior students with cultural training, it enhances the college’s partnership with Indigenous communities and it supports the recruitment of under-served students.

Large animal: The WCVM has developed several specialty final-year rotations that focus on herd health and production medicine. These rotations address declining numbers of food animal cases and help to fulfill the requirement of delivering veterinary graduates who are ready for food animal production medicine. While each rotation has its own learning objectives and focus, they all use a combination of seminars, laboratory sessions and field trips to ensure that students meet with expert veterinarians and have opportunities to visit large, successful agricultural operations. Feedlot, swine, dairy and small ruminant programs are examples of these specialty final-year rotations.

Disease Investigation Unit: The Disease Investigation Unit (DIU) is based on a 25-year-old partnership between the WCVM and the Government of Saskatchewan. The government provides up to $50,000 per year to fund investigations of disease outbreaks on agricultural operations. On average, the DIU performs from 18 to 20 investigations per year. Once referring veterinarians report the outbreaks, the program fully funds the investigation process, including transport and diagnostic testing. Faculty, along with graduate students and final-year veterinary students, typically perform the investigations. The investigative team prepares the final report and sends it to the producer, referring veterinarian and provincial government. This process has identified many nutritional and management problems as well as some emerging diseases, including porcine circovirus and ergot poisoning in cattle.

4.4 Off-campus rotation sites

Since we rely on the VMC to provide the core of our veterinary college’s clinical instruction, our senior veterinary students don’t need to take any off-site rotations. However, we recognize the value of using other resources to supplement our own expertise and caseload where appropriate.

The WCVM provides two types of off-campus experience:
• **External rotations** *(Appendix 4.4, Table G)*: The Office of the Associate Dean (Academic) develops and administers our series of external rotations that place students at specific sites where they have access to subject experts (see Standard 9 for an overview of the fourth-year program).

• **Externships**: Individual students organize these experiences under the supervision of faculty members. Each student must develop learning objectives and justify the value of the learning experience before externships can be approved by the Fourth-year Teachers Committee.

Rotation supervisors evaluate students during off-campus rotations using the same assessment forms as other rotations. Each student must also submit a case log and their own assessment of the rotation. The WCVM archives these documents so future students can use the information to plan their own rotations.

The WCVM has relatively informal arrangements with the veterinary practices and organizations that participate in external rotations and externships, and there is no specific contract or payment. The students must register with the respective province’s veterinary medical association, and the WCVM covers the students’ health and liability insurance during their experiences. Many of the participating practices and organizations like to “give back” to the profession and enjoy the chance to provide veterinary students with educational experiences. In return, the WCVM provides the participating practices with access to the U of S library system.

### 4.5 Student involvement in management of patients

The WCVM’s philosophy is that students will learn best by doing, and our goal is to have a veterinary student involved in the care of every patient that presents to the VMC. The student is responsible for greeting the client, collecting the history and performing a physical examination. The student must then develop a problem list as well as a list of differential diagnoses. Next, the student must suggest a plan including diagnostic testing and supportive care as indicated. Students then discuss the case with a faculty member, staff veterinarian or house officer who will confirm the history and clinical findings. When the patient is admitted, the student takes on full responsibility for the case including daily assessments, treatments, medical records and communication with the client. All of these activities are done under direct supervision. If any case requires complex surgery or other advanced treatments, students are included in the process as much as possible.

### 4.6 Integration of subject matter experts into clinical instruction

All WCVM faculty who are hired in a clinical role are required to work in the VMC and supervise fourth-year students on clinical rotations. These same faculty members are responsible for lecture and laboratory instruction in clinical subjects during the first three years of the DVM program. Most of our in-house, fourth-year rotations and all of our core rotations are built around case material presenting to the VMC or to the veterinary diagnostic laboratory (PDS).

### 4.7 Adequacy of medical records

The VMC has a medical records system based on the problem-oriented medical record. The medical records office staff members are qualified in managing health records. Most records are maintained for individual animals, but there are some records for production animals that are herd based. The VMC medical records are now maintained electronically using the database software that manages all aspects of hospital operations. The software, which was built by the college’s IT team, continues to be evaluated and enhanced. While the VMC is moving toward a “paperless” system, employees still record some of the patients’ history, physical examination and daily progress records on paper. Once the patient is discharged, all of the case’s information is scanned into the hospital’s database. During calls, field service clinicians collect information on paper charts and then scan the data once they return to the VMC. All patient records are searchable by faculty or through complex query submitted to the VMC medical records department. Medical records are available to students and faculty for the preparation of case reports, teaching rounds and retrospective studies.

The medical records system is reviewed as part of the accreditation process through the Saskatchewan Veterinary Medical Association (SVMA) and the American Animal Hospital Association (AAHA).
4.8 **Response to changes in caseload**

In the VMC’s small animal clinic, the increase in caseload has led to the hiring of more veterinary technologists. We have created more faculty positions in neurology, clinical nutrition and rehabilitation, and we have expanded areas of strength — ophthalmology, exotics, medical imaging, oncology and small animal surgery. In certain areas, the VMC has also hired new clinical associates (non-faculty staff veterinarians) whose specific roles are to provide clinical services to the clients and supervise fourth-year veterinary students.

In the VMC’s large animal clinic, the reduction in “in-clinic” food animal cases has led to some changes: field service is now part of a core rotation while the large animal medicine rotation is no longer “core.” In addition, large animal medicine clinicians are developing new methods of teaching that use archived case material and the WCVM teaching animals.

The VMC has also added new staff members — veterinary technologists, technicians, clerical staff and client service representatives — to maintain the hospital’s high level of patient and client service.

4.9 **How the value of cases is maximized across the curriculum**

Our students spend most of their final year managing cases in the VMC. While the WCVM’s final-year curriculum is still based around two semesters, we have been slowly developing programs that use case material from the summer. For example, we have developed large animal clinical rotations during the month of May, and we hire veterinary students from all years to work in the VMC’s large and small animal clinic during the summer months.

The advantage of having the VMC on site is that all case material in the small and large animal clinics is of value to students in all years of the DVM program. Students are encouraged to visit the VMC whenever they have time, and the VMC’s large animal clinic has developed case rounds on Tuesday and Thursday mornings that are especially designed for students in Years 1 to 3. The small animal clinic has also developed case side rounds that occur throughout the academic year for members of the WCVM’s small animal club. In addition, our clinical faculty members use case material from current cases in their lectures, and they encourage students to come to the clinic and view the cases themselves. The first-year biomedical rounds course provides vertical integration of the curriculum and was built using clinical cases from the VMC.

Overall, we are fortunate to have an excellent caseload and the support of animal owners from Saskatoon and the surrounding areas. We feel that the VMC caseload is almost ideal for our teaching needs. While the in-clinic bovine caseload can be lacking at times, this minor deficiency is more than compensated by our thriving field service caseload.
Standard 5
Information Resources
Standard 5 Information Resources

5.1 Adequacy of information retrieval and learning resources

The University Library has shifted from print to electronic versions of resources to facilitate off-site and after-hours access. In cases where an electronic version is not available, print materials are still purchased. For 2016-17, the University Library’s acquisitions budget is approximately $15 million. The acquisitions budgets for veterinary medicine- and toxicology-related print and electronic resources are $105,235 and $6,909 respectively. As an interdisciplinary field, veterinary medicine also draws upon material from other subject areas across the library system.

The University Library has negotiated access to 58,215 full text electronic journals (106 specific to veterinary science or toxicology) and 509 databases for use by university faculty, staff and students. About 2.1 million physical items are housed in the university's seven branch libraries and another 740,000 volumes are available electronically. The Veterinary Medicine Library houses about 15,000 print monographs and one to three years of 46 print journal subscriptions. Older print issues of these journals are housed in the Leslie and Irene Dubé Health Sciences Library. Since 2011 the University Library has also enhanced its One Health collections — a signature research area at the U of S.

5.2 Availability of learning and information technology resources support

The Veterinary Medicine Library space is about 381 square metres (1,250 square feet) with eight study carrels, eight soft seats in the serials reading room, eight study spaces, six computer stations and access to photocopying, printing and scanning equipment. All U of S libraries provide wireless access. The University Library has a laptop lending program for students, and the Veterinary Medicine Library provides one laptop for loan.

Basic library services include orientation, information literacy instruction, reference/research assistance, interlibrary loan and/or document delivery, and circulation of materials. WCVM students, staff and faculty can take advantage of reference and research assistance in person or through telephone, email and instant messaging. The U of S Distance and Distributed Library Services provides a range of services to students and faculty who are learning and teaching off campus.

The Veterinary Medicine Library is open and staffed 49 hours per week during the academic term with extended hours (53 hours per week) in September and January. The library is open 40 hours per week in the summer. During regular hours, students have access the atrium and the fourth-floor learning commons — both study areas are connected to the library. They also have 24-hour access to these areas through secure, separate entrances.

To maximize staff expertise and to increase efficiencies, the University Library has centralized all acquisitions, cataloguing and IT functions. As a result, it isn’t possible to determine what proportion of the overall staffing complement specifically supports the broad services delivered through the WCVM location. In total, 1.6 FTE librarians, 2.0 FTE library assistants and 0.56 FTE casual assistants deliver direct services in the Veterinary Medicine Library.

U of S Information and Communications Technologies (ICT) meets the WCVM’s information technology (IT) needs. Seven full-time staff are permanently assigned to the college. The division includes an IT manager and three programmers who maintain the in-house database (VETNET) that is used to run the academic program and room booking as well as the VMC’s medical records. In addition, two IT technicians respond to the college's day-to-day IT needs while a third technician takes care of the college's audio-visual needs. This IT team is exceptionally well trained and dedicated to serving the college. Their primary focus is the college and faculty, but IT technicians also provide support for
veterinary students (to support imaging instruction, all WCVM students are required to have a laptop). The IT team plays a major role in developing, maintaining and upgrading the college’s IT infrastructure, and in recent years the team members have been directly involved in various student-related projects.

Resources are available on campus through the U of S Gwenna Moss Centre for Teaching and Learning where educational specialists are available to provide faculty with one-on-one assistance. Throughout the year the centre also offers courses on software use and the pedagogy of using IT in student education. Other on-campus resources available include the Media Production division whose staff members can assist WCVM faculty in developing instructional videos and can offer a range of filming, editing and dubbing services.

5.3 Methods of access to library information resources

Faculty and students can access most of the University Library’s online information resources on or off campus. Students and faculty can remotely access the library’s electronic resources through the library’s website using their university identity and password. The University Library’s IT unit provides and maintains the hardware, software and network infrastructure.

An Interlibrary Loan/Document Delivery service facilitates access to materials that are unavailable at the U of S. The lending library determines the loan periods and sends the resources to whichever branch library the client requests. Copies of journal articles and book chapters are delivered electronically to the requestor’s desktop through a secure portal. WCVM faculty and graduate students can also use this document delivery system to access journal articles electronically from the U of S Health Sciences Library. Physical journal volumes can also be brought to the Veterinary Medicine Library for photocopying.

5.4 Training and support resources for students

All WCVM students in the DVM and graduate programs have access to adequate information literacy instruction — including scheduled and on-demand sessions — that are delivered by library staff. The library also offers online and video tutorials and drop-in workshops. These sessions cover library services and various research, technical and academic health topics.

5.5 Plans for improvement

The Veterinary Medicine Library underwent a major renovation in late 2014. The library’s fourth floor, which housed print journals, was converted into a student learning commons where new individual and team study rooms are now located. These changes enable the college to ensure that the space meets the students’ needs for examinations and group learning.
Standard 6

Students
Standard 6 Students

As a regional college, the WCVM benefits from a large, competitive pool of highly qualified applicants. The college has sufficient resources to educate our population of students. Based on the WCVM’s IPA, our students come from a diverse geographical area that spans all of Western Canada and the northern territories. The current IPA supports our enrolment of 78 students per year. Students’ homes range from remote agricultural areas and Indigenous communities to large cosmopolitan cities and urban centres. Our student body represents all types of individuals from the region, and in turn, the students are very accepting of their classmates’ diversity. Our tuition policies promote access to education regardless of students’ socio-economic backgrounds.

6.1 Trends in student numbers

Our funding structure, which is based on the college’s IPA, allows for the admission of 78 veterinary students per year. The attrition rate in our DVM student population is very low. We have rare deferrals due to personal or health reasons, and occasionally we will accept an international student on “advanced standing” entry to fill a place when a student defers. In addition, we have agreements with the Caribbean veterinary schools to take up to five final-year Canadian veterinary students for their clinical placement.

Our DVM student numbers have been stable over the past five years (Table A). The number of graduate students in clinical, master’s and doctorate programs at the WCVM has also remained steady (Table B). While we do not run a veterinary technology training program at the WCVM, we continue to offer one-semester clinical placements to all students enrolled in the two-year veterinary technology program at Saskatchewan Polytechnic (Table D).

The student body at WCVM represents the ethnic diversity seen across Western Canada. Due to Canadian law, the WCVM does not identify students from minority backgrounds other than those who self-identify as being of Aboriginal ancestry (Table C). Each year, the college offers two places for Indigenous students through its education equity program. The university and the college are committed to improved Indigenous engagement — including increasing student complement.

6.2 Student services

The WCVM administration puts a high priority on maintaining a positive, open relationship with the student body. We foster this relationship through monthly Student Liaison Committee meetings, the Student/Teacher Educational Progress (STEP) Committee and the informal relationship that members of the Student Services Office have with the student body. The associate dean (academic), the student services manager and the student services officer all have a true open door policy. The manager has 13 years of experience in student services while the student services officer has been involved in the field for five years. Both employees are trained in mental health first aid (MHFA) and applied suicide intervention skills training (ASIST) as well as in programs for assessing violent threats and assisting distressed students. The manager of student services and the college’s veterinary social worker are trained to teach the MHFA course and have completed training 56 faculty, staff and students since 2016.

The associate dean (academic) has been in the position for two years. Beforehand, he was a clinical faculty member and faculty adviser for 15 years. The associate dean (academic) has training in MHFA and in assisting distressed students. He also helped to develop the college’s student mentorship program.
The Student Services Office co-ordinates registration and is responsible for the DVM program’s academic schedule, year timetables and examinations. In addition, its employees provide first-line counselling and advising on academic issues and personal issues such as stress, illness and family emergencies. The office also provides a housing list and co-ordinates veterinary licensing and convocation. The office works collaboratively with the veterinary social worker and, when necessary, refers students to the U of S Student Health Services for additional support.

The office works closely with the U of S Disability Services for Students (DSS) to facilitate academic accommodations for students who have any type of health issue. These issues are managed through a three-way meeting between the college, DSS and the student at least once a year to develop an accommodation plan based on appropriate documentation. The participants can reassess the student’s plan at any time, and in complex cases a student’s accommodation plan may need to be assessed monthly. This process is working extremely well and is becoming the model for use in other professional colleges on the U of S campus.

We have begun to log student interactions with the Student Services Office. The data is incomplete, but in the last academic year, we logged 438 student interactions. Approximately one quarter of the interactions were due to academic difficulties, a quarter were due to health issues and 10 per cent were due to mental health issues. The remainder of the interactions were due to a wide variety of subjects relating to academic, personal and career issues. In addition, the office’s representatives are in regular contact with the WCVM’s Office of Veterinary Social Work.

The Student Services Office manages the faculty adviser program that pairs students with faculty members throughout the four years of the veterinary program. The pairing is initially based on declared interests, but students can change advisers at any time. The program provides a point of contact for every WCVM student and can eventually build into a long-term mentorship. We have also been experimenting with an informal peer mentorship program where students are put in contact with upper-year students who have faced issues similar to those of the students in question. While this program is still ad hoc, it has proven to be very successful in individual cases.

The Student Services Office also co-ordinates all awards and bursaries and manages the emergency student loan service. Full details of all awards, bursaries and the emergency loan program can be found online (www.usask.ca/wcvm/undergrad_students/scholarships/index.php).

The veterinary social work program, which was established by the WCVM Dean’s Office in 2014, includes one full-time veterinary social worker who is specifically trained to provide service through the VMC. The social worker has a master’s degree in social work (University of Regina) and has practised as a registered social worker for more than eight years. She provides social work services to VMC clients as well as WCVM staff, faculty and students. Her workload is split so that she provides service to clients, staff and students, with approximately 27 per cent of her caseload being dedicated to student issues.

### Student societies

- Western Canadian Veterinary Students’ Association
- Animal Welfare Club
- Behaviour Club
- Business Club
- Emergency and Critical Care Club
- Equine Club
- Medical Imaging Club
- Pathology Club
- Production Animal Club
- Small Animal Club
- Wild and Exotic Animal Medicine Society (WEAMS)
- Wildlife Disease Club
- Global Vets
- Pawsative Practice

Visit www.usask.ca/wcvm/undergrad_students/student_organizations.php for more details about student organizations.
6.3 College activities for graduate placement

The Student Services Office maintains a web page that lists all job postings submitted by veterinary clinics and organizations (www.usask.ca/wcvm/employment/index.php). Nearly 90 per cent of WCVM graduates work in Western Canada, and as a result, the veterinary college maintains close ties with the provincial veterinary medical associations in the region.

6.4 Academic catalogues and information for students

- The WCVM admission requirements are also addressed in detail in Standard 7 http://www.usask.ca/wcvm/admissions/
- The academic catalogue and orientation manuals can be found online http://www.usask.ca/wcvm/undergrad_students/Student_Handbook1/index.php
- Degree requirements http://www.usask.ca/programs/colleges-schools/veterinary-medicine/degree.php
- Faculty descriptions http://www.usask.ca/wcvm/wcvm_people/index.php#
- Information on tuition and fees https://students.usask.ca/money/tuition-fees/undergraduate-tuition.php#DentistryMedicinePharmacyandVeterinaryMedicine
- Academic calendar http://www.usask.ca/programs/calendar.php
- National and state requirements for licensure http://www.usask.ca/programs/colleges-schools/veterinary-medicine/index.php

Program withdrawal and deferral requests must be submitted in writing to the associate dean (academic). Deferrals will be granted for medical or other extenuating circumstances. Information on withdrawal deadlines, return of tuition and other related questions can be found on the U of S site: https://students.usask.ca/academics/classes.php#Registrationdeadlines.

6.5 Collection of student suggestions

Student feedback and consultation is very important at the WCVM. The four DVM class presidents are asked to solicit comments and complaints from their classmates. The class president collects these comments and then presents them to the college's associate dean (academic). Class presidents also meet monthly with the college's executive during the Student Liaison Committee meetings to discuss issues and respond to issues raised by individual students. In addition, the WCVM organizes end-of-year review sessions. In advance of these sessions, the Student Services Office randomly selects students from each class year and these students solicit classmates’ comments so they can share the feedback. We also use an extensive graduation survey to collect information. The college's associate dean (academic) and the Curriculum Committee annually review this collected information and use the input to improve the college's DVM program.

6.6 Current plans for improvement of student resources

The current student services model works exceptionally well at the WCVM. In the outcomes survey data (see Standard 11), the Student Services Office typically receives the highest satisfaction rating among the students. In 2016, the WCVM’s manager of student services received the U of S Students’ Union Academic Adviser of the Year Award. While we are always investigating ways to improve our services, our program works well and we have no plans for any significant changes.
Standard 7
Admission
Standard 7 Admission

The WCVM recruitment and admissions program has been highly successful over the past years. We now have more than five applicants per seat and our admission process appears to be working well based upon the performance of our students and the very low attrition rate of our college. The admissions system has been developed and refined over many years using our outcomes data. Based on that information, we believe that our admissions process accurately selects students based on the right balance of academic and non-academic factors, and successful candidates go on to be successful veterinarians.

7.1 Minimum requirements for admission

Admission requirements for the Western College of Veterinary Medicine (WCVM) are listed on the college website (www.usask.ca/wcvm/admissions/). In addition, general and comprehensive information packages are available online and in print.

The minimum pre-veterinary course requirements consist of 60 credits of required and elective courses. One credit represents one lecture-hour-equivalent per week for one term (or approximately one semester hour of credit):

- six credits of biology, chemistry, English and mathematics/statistics
- three credits of organic chemistry, physics, biochemistry, genetics and microbiology
- 21 credits of elective courses

There are no “preferred” electives: the choice of electives should be based upon the requirements of the program in which the student is enrolled or the student’s general interests. Students are encouraged to select electives that will broaden their perspective.

At least two full years of university courses are required to complete the requirements. Most applicants have more than two years of university. However, neither the number of years of pre-professional study nor the degree(s) held are factors in selecting students. All applicants must have a minimum, cumulative average of 75 per cent to be considered for admission.

7.2 Selection process

WCVM admits 78 undergraduate students per year:

- 20 students from each of the provinces of British Columbia, Alberta and Saskatchewan
- 15 students from Manitoba
- one student from Canadian northern territories (Yukon, N.W.T., Nunavut) or with a direct link to the Canadian military or RCMP
- two students of Indigenous ancestry

The education equity (EE) program provides two seats where Indigenous students compete in a separate pool. To qualify for the program, students must present official proof of ancestry. These students are considered in their provincial pool first, then the EE pool. As a result, there is no maximum number of Indigenous students who can be admitted.
in any given year. For example, between four and five Indigenous students have been accepted in each of the past four years.

Each fall, the WCVM’s associate dean (academic) and manager of admissions and recruitment travel across Western Canada to recruit and speak to prospective students and pre-veterinary clubs as well as to university and college counsellors.

The college’s manager of admissions and recruitment co-ordinates the admissions process, and the associate dean (academic) chairs the WCVM admissions committee. The committee includes eight full-time WCVM faculty members (two-year terms) and one full-time member from the U of S College of Agriculture and Bioresources (three-year term). Each year the college holds a mandatory interview training session for all committee members that focuses on the use of the standardized rubric and how to avoid personal biases.

Each year the college holds a mandatory interview training session for all committee members that focuses on the use of the standardized rubric and how to avoid personal biases.

During the admission process, each applicant is assigned an academic score out of 60, whereby 40 marks are based on the overall GPA and 20 marks are based on the student’s best full year. Applicants are then ranked in each provincial pool and the top students are offered an interview. The academic score out of 60 closely correlates with academic performance in Years 1 and 2 of the DVM program.

Four interview panels, each consisting of three members, are assigned to each of the four provincial pools. Each interview panel conducts all interviews for its assigned province in a given year. Each interview panel consists of two members of the admissions committee and one representative nominated by the respective provincial VMA. Provincial interview panels are balanced with at least one experienced committee member as well as representation from both genders and from different types of veterinary professions. The committee members are responsible for training the provincial representative on each interview panel. While the college generally interviews two students for each seat, a slightly higher number of Alberta applicants are interviewed due to the small overlap in acceptances between the WCVM and the UCVM.

### 7.3 Non-academic factors

Non-academic factors are assessed through a reference from a veterinarian and from an individual with an animal- or agricultural-related background.

Members of the interview panel are provided with a summary of each candidate’s application package and reference forms, but they are blinded to the applicant’s academic achievements. A standardized, 40-minute interview format is used with a grading rubric across four categories: community involvement and leadership; experience working with animals and knowledge of animal production; veterinary-related experience and knowledge of veterinary profession; and communication.

The interview generates a score out of 40 that is combined with the academic score to rank candidates for acceptance in each provincial pool. Our review of the admissions process has demonstrated a clear correlation between a student’s performance in the interview and his/her performance in the final clinical year of the program. The student’s interview score inversely correlates with the student’s academic score.

There is normally a 100 per cent acceptance rate (all candidates who are offered a position accept the offer) except in Alberta where candidates may have applied to two veterinary colleges. In the Alberta pool, the college typically requires about five alternates.

### 7.4 Admission data

See Appendix 7.4, Table A, Admission data.


7.5 Plans for changing and assessing admissions process
The WCVM admissions committee annually reviews the admissions process, and this review typically results in minor changes to the interview process. Every three years there is an extensive outcomes-based analysis of the admissions process. The 2014 report is available to accreditation site team members.

7.6 Transfer student policies/procedures
The WCVM no longer accepts transfer students. The last transfer student was admitted in 2015, and in the two previous years (2013 and 2014), one student per year was admitted.
Standard 8
Faculty
**Standard 8 Faculty**

A major strength of the WCVM is the strong commitment and loyalty of the faculty and staff to the college and its programs. We continue to build and support a sense of community among employees and students.

8.1 **Strengths of faculty and support staff**

See Appendix 8.1, Table A and Table B.

The faculty FTE (full-time equivalent) complement supported from all sources is 89.5. Over the last five-year period, that number has grown slightly from 86.2 to 89.5 faculty FTEs. During the same period, the number of non-tenure track clinical associates has increased from 15 to 20.83 FTEs.

The college and the university support a diverse and inclusive work environment. The WCVM has developed and maintains a faculty and staff complement with a broad range of backgrounds and specialty training consistent with the WCVM’s strategic and curricular needs. The college has made significant efforts to recruit, hire and retain high quality faculty and staff.

8.2 **Current number of academic faculty**

See Appendix 8.2, Table C and Table D.

8.3 **Challenges in maintaining faculty**

Although recruitment of new clinical faculty has been challenging for the WCVM, the college has been successful in meeting its core DVM teaching commitments. The college faces significant recruitment competition from both the private sector and other universities in specialties such as small animal surgery and medical imaging. However, we have been successful in acquiring locum specialists to fill short-term gaps in recruitment and to replace faculty during sabbaticals and other types of leaves.

The WCVM employs various options to offer competitive compensation and scholarly opportunities for new faculty members. The U of S also continues to support policies that provide flexibility in starting salaries as well as salary increases due to merit, market demands and anomalies. The college has hired qualified graduates or practitioners and has supported their postgraduate education and specialist training in strategic areas to meet the delivery of our clinical services. WCVM graduates often pursue advanced training, thus increasing our recruitment pool for faculty positions. The college also actively addresses spousal hiring opportunities.

In addition, the WCVM continues to support and prioritize faculty scholarly interests and research and has a standard process to provide competitive start-up funding to attract faculty to the veterinary college.
8.4 Loss and recruitment of faculty

Over the past five years, the WCVM faculty complement has grown slightly. While the college has added faculty or clinical associates in some areas, recruitment in disciplines such as small animal surgery and medical imaging has been challenging. Please view Appendix 8.1, Table A, for more information.

8.5 Summary of tenure and promotion policies

The basis for tenure and promotion within the WCVM is governed by the 2014–2017 Collective Agreement between the university and its faculty association (WCVM Standards for Promotion and Tenure and the USFA collective agreement will be available on site). Key points of the collective agreement are summarized below. The college is also in the process of developing standards to more accurately assess the work of clinical faculty and new faculty hired into academic programming (primarily teaching) appointments.

The standards for promotion and tenure reflect the actual appointment and assigned duties of the faculty. At the point of hiring, each faculty member is assigned to one of two categories: Category 4 is the typical research appointment while Category 5 standards define “the practice of professional skills” for clinical faculty. The categories of college standards for promotion and tenure are the following:

- Academic credentials
- Teaching ability and performance
- Knowledge of discipline and field of specialization
- Research, scholarly and artistic work (OR)
- Practice of professional skills
- Professional practice
- Research, scholarly and artistic work
- Contributions to administrative responsibilities of the department, college or university
- Contributions to the extension responsibilities of the department, college or university
- Public service and contributions to academic and professional bodies

For the purposes of tenure, a faculty member in a similar field from another institution must review the candidate's file. The file is then reviewed and voted on at the department level, college level and university level before any award is made. While a faculty member can decide when to apply for promotion, the individual must apply for tenure within five years of appointment. However, in extraordinary circumstances, faculty members may apply for extensions to this timeline.

The WCVM employs non-faculty clinical associates who provide clinical service and participate in academic instruction. The collective agreement between the U of S and the Administrative and Supervisor Personnel Association (ASPA) governs other non-faculty, long-term professional staff — including clinical associates. Policies in the collective agreements of the USFA and ASPA ensure fair and consistent treatment for faculty and professional staff.

8.6 Estimate of the weight assigned to promotion/tenure

The weight assigned to promotion and tenure for teaching, research, service or other scholarly activities is based upon the assignment of duties and evaluated against the published standards outlined above. Faculty members may be considered for additional compensation based on special circumstances, out-of-hour service and other considerations.

8.7 Available professional development opportunities

Each faculty member at the WCVM receives an annual professional development fund of $2,050 per year. WCVM departments and the Dean’s Office often provide additional funding for professional development opportunities.
This financial support allows them to attend meetings and conferences that are related to their respective disciplines or program priorities. Faculty members routinely attend and speak at meetings organized by regional organizations, provincial veterinary medical associations and the CVMA as well as specialty or international meetings.

All new, pre-tenure faculty members are provided with a mentorship committee that is charged with providing support and direction for developing a research and teaching program.

The U of S Gwenna Moss Centre for Teaching and Learning (GMCTL) is devoted to improving teaching and learning on campus, and many of our faculty participate in workshops organized by the centre. Additionally, many of our faculty use the U of S College of Medicine’s Educational Support and Development section. The college works closely with the GMCTL, and we have recently arranged for an educational specialist to be assigned to the college for two days per week. With the specialist’s assistance and with grant funding from the GMCTL, we are helping faculty develop a supportive teaching community at the college.

The WCVM collaborates frequently with the university’s Council of Health Sciences, the Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac) and others. The college also has funds available to support visiting scholars and academic consultants.

The collective agreement between the U of S and the university’s faculty association outlines the sabbatical leave program for all faculty on campus — including faculty at the WCVM. After six years of service, faculty are permitted to take a 12-month leave at 90 per cent pay or a six-month leave at 100 per cent pay. Thereafter, faculty can take a six-month leave every three years at 90 per cent pay. If needed, the college provides resources to meet the academic needs of the department during a faculty member’s leave.

8.8 Plans or major changes in the program affected by faculty change

There are no plans or major changes in the DVM program that would be affected by faculty retirements, recruitment or retention. The college continues to replace retiring faculty as needed and to address our long-term academic plan for faculty. In fact, the college has used anticipated faculty retirements as an opportunity to use bridge funding for cluster hiring and subsequent department rejuvenation. This approach has allowed the new faculty to focus on research and teaching development with a reduced administrative and teaching load during their first year.

8.9 Measures taken to attract and retain a diverse faculty

The WCVM widely advertises available faculty positions in a variety of publications and through various organizations to ensure that the information reaches a diverse population. In addition, the U of S assists the college in navigating international recruitment services and in interpreting immigration processes and procedures — vital resources that allow the WCVM to attract prospective faculty applicants from a large global pool of candidates. The university has placed great emphasis on promoting international and Indigenous engagement, and as part of every on-campus job posting, the U of S states, “The U of S values diversity and Aboriginal engagement as a strategic priority.”

The WCVM’s faculty remuneration package is competitive. As previously described, the college has options available to provide competitive salaries in response to market pressures. The compensation package includes a comprehensive medical plan and pension, a professional development fund and the opportunity for sabbatical leaves. We also offer a spousal hire program. In addition, the U of S offers an interest-free housing loan to assist new faculty and their families.

8.10 Delivery of curricular content by individuals not employed full time

Fortunately, the WCVM can achieve nearly all of its clinical and preclinical teaching using college faculty and staff. We are also fortunate to have specialists embedded in the college from the Public Health Agency of Canada and Agriculture and Agri-Food Canada. These individuals contribute their expertise to the DVM program.

During the 2016-17 academic year, we supplemented our own “in-house” expertise in the following areas:

- Year 1: Approximately six per cent of teaching in Year 1 (nutrition and business — on campus faculty)
• **Year 2:** Approximately 2.4 per cent of teaching in Year 2 (poultry, on campus faculty, and dermatology, hired sessional lecturer)

• **Year 3:** Approximately nine per cent of core teaching (dermatology and business (hired sessional lectures). We also use some sessional lecturers in our third-year elective courses

For the past few years, we have used a number of clinical locum instructors to cover faculty vacancies, maternity leaves and sabbatical leaves in small animal dentistry, small animal surgery, medical imaging and large animal medicine. We also opted to bring in an occasional board-certified veterinary dermatologist to provide clinical service and to supervise final-year clinical rotations on a short-term basis. These individuals provide a valuable opportunity to share experiences and new perspectives.

On occasion, veterinary pathology graduate students and PDS specialists or staff pathologists, who are typically adjunct faculty members in the Department of Veterinary Pathology, supervise veterinary students on their core fourth-year veterinary pathology rotation. However, the direct responsibility for students on this rotation always rests with the supervising faculty member.

### 8.11 Role of interns, residents and graduate students in teaching

In the preclinical years, graduate students are often employed as instructors in laboratories (mainly anatomy and physiology courses, VBMS 220 and 224). Graduate students have also played an important part in our first-year bio-medical rounds course (VBMS 208).

Clinical interns and residents form a vital component of the clinical team and assist in supervising students on clinical rotations. Consequently, they play an important role when the clinical division meets to grade student performance on a rotation. Their involvement with students always occurs under the supervision of a faculty member.

Each discipline section is responsible for its own residency program. In addition to the clinical supervision of students, many sections will develop a process that allows residents to gain teaching experience during rounds, clinical laboratories and lectures. Learning how to evaluate student performance is part of this process.
Standard 9
Curriculum
Standard 9 Curriculum

The WCVM curriculum extends over four years with a 32-week final clinical year based primarily in the college’s VMC (senior veterinary students are not required to take external rotations). The WCVM Veterinary Undergraduate Curriculum Committee and the members of the Year Teachers Committees (Years 1 to 4) oversee the curriculum.

The associate dean (academic) chairs the Curriculum Committee which consists of the five department heads as standing members. Each Year Teachers Committee elects a representative for a two-year term and two faculty members at large also serve a two-year term. The course co-ordinators for each course taught in a single year form the respective Year Teachers Committee along with the chairs of the three other Year Teachers Committees. These committees are responsible for overseeing the teaching in each year of the curriculum.

The last major review of the WCVM curriculum took place in the fall of 2015. The GMCTL assisted the review that involved all faculty sitting on the WCVM’s Year Teachers Committees. The review was a comprehensive assessment based on all the outcomes data available to the college. The WCVM Curriculum Committee now meets monthly to review all forms of feedback and outcomes assessment on the curriculum. The committee is beginning the process of targeted curriculum renewal (see Standard 9.7).

9.1 Objectives of the curriculum

The WCVM undergraduate curriculum has two main objectives:

- The WCVM wants to prepare veterinary students for entering general practice in Western Canada. Our goal is to ensure that the students have met the basic competencies that will allow them to practise on routine cases in common species.
- The WCVM needs to prepare students for a lifetime of learning and career development. All veterinary graduates will need to continue their education beyond WCVM no matter what type of career they choose. They must also be prepared for the possibility of specializing through an internship or residency program, or furthering their education through an advanced degree.

These objectives are the focus of our plan to continuously re-evaluate the content of our curriculum. See Appendix 9.1, Table A, to view how the DVM program’s curricular core courses co-ordinate with the evaluation rubric.

9.2 Major curricular changes

In 2007, the WCVM completely overhauled its original curriculum and moved to a core-elective model. In the past decade, the college has made a number of minor changes. Based on collected data and evidence, the college continues that process of ongoing renewal to ensure that the WCVM’s curriculum remains current and relevant.

Curriculum map: In 2014, we worked with our in-house IT department to develop a curriculum map database with each course being mapped to the level of the individual lecture and laboratory session. Data encompassed in the map includes the objectives of the session, the key words and the method of instruction. Each session is also linked to the competencies outlined by the AVMA Council on Education.
Communication: Fourteen WCVM faculty members have received training in veterinary communication through the Bayer Animal Health Communication Project. These faculty members have developed a communication course that spans the first three years of the DVM program. The course includes lectures and workshops in Years 1 and 2, culminating in a variety of sessions in Year 3 using standardized patients (trained actors) at the U of S Clinical Learning Resource Centre. The college also offers a third-year elective course for students who wish to further develop their skills in this area.

Competencies and simulations: In response to the college’s outcome surveys, we recognize the need to ensure that students are both confident and competent in their practical skills. The WCVM is now making the transition to incorporating competency-based assessment throughout the DVM curriculum — a change that has been enhanced by the development of the college’s new BJ Hughes Centre for Clinical Learning. We are developing specific competency lists for each of the first three years of the DVM curriculum, and in turn, we are ensuring that the competencies are taught and that students have ample opportunity to practise them. The plan is to evaluate students’ learning at the end of each year using objective structured clinical examinations (OSCEs). During the spring of 2017, we completed this process for the first-year students in the DVM program.

Veterinary business: Three years ago, in response to our outcomes data, we reassessed the way in which business is taught at the veterinary college. We have introduced a 12-hour introductory course in the first year and made the third-year business course a compulsory requirement. We have also expanded the focus to include financial literacy. These changes have resulted in a marked improvement in the outcomes data.

Nutrition: The outcomes data suggested that students did not feel adequately prepared in the field of clinical nutrition. In response, the WCVM hired a board-certified small animal clinical nutritionist in 2015, and with her input, the college is reviewing the way that introductory nutrition is taught during the first year of the DVM program. In addition, the WCVM has made it compulsory for third-year students to take at least one of three elective courses in nutrition (small animal, equine or bovine nutrition). The small animal nutrition elective rotation for fourth-year students has also been completely overhauled.

Mentorship: In 2014, in response to comments from provincial veterinary medical associations, the WCVM established a committee to look at issues relating to mentorship in the veterinary profession and improving the transition to practice for new and recent graduates. With the guidance of a veterinary education consultant and after a global review of mentoring programs, the WCVM developed an innovative and integrated curriculum to help students develop mentee skills and prepare themselves to actively engage in mentoring after graduation. The WCVM’s new mentorship program is now integrated into the four years of the DVM program.

Mindfulness: In response to concerns about the rise of mental health issues among members of the veterinary profession, we have been offering a two-credit course in mindfulness as part of the third-year elective course offerings for the past nine years. The course is capped at 24 participants and is always full. Other opportunities for mindfulness training are also available on campus.

Dentistry: The college also developed a stand-alone, third-year course in small animal dentistry in response to our outcome measures that recognized the importance of small animal dentistry in general practice and the importance of students demonstrating competency in this area. Dentistry is now included as a stand-alone core subject in Year 3. In response to our outcomes data that identified veterinary dentistry as a weakness, we have also expanded the offerings in Year 4 of the DVM program.

Public health: Public health is an important component of the curriculum and results from our employer outcomes survey indicate that our students are well prepared in this area. Based on course evaluations and information in our new curriculum map, the public health course was eliminated. The material is provided in related courses such as Evidence-based Medicine and Ecology of Disease.

Course electives and clinical rotations: The required credits in third-year elective courses was slightly reduced to better balance learning opportunities with students’ schedules. In the fourth-year clinical program, the college developed new and diverse rotations (see Curriculum Digest).
9.3 Curriculum assessment

The WCVM regularly assesses its curriculum in a number of ways. For each course, students and instructors can use an assessment tool that’s built into the college’s management software. The online course assessment forms, which are approved by the U of S, allow the veterinary college to collect all responses anonymously. The college shares instructor evaluations with individual faculty members and their department heads, while the Curriculum Committee reviews course evaluations.

We also hold focus groups with each class at the end of each year, and we use a standard format to collect the students’ views. Each year’s teachers committee reports to the Curriculum Committee. The curriculum map is also used to assess overlaps, redundancies and omissions. In 2015, we conducted a review of the entire curriculum.

Based on results, the college is developing entrustable professional activities (EPAs). These are units of professional practice, described as tasks or responsibilities that can be entrusted to the unsupervised execution by a trainee once he or she has attained sufficient specific competence. Once defined, the EPAs can be traced back through the four-year curriculum as curricular arcs to search for deficiencies and redundancies. A copy of the curriculum review data will be available to accreditation site visit members.

9.4 Curriculum strengths and weaknesses

The greatest strengths of the WCVM’s curriculum are the following:

- The curriculum’s core-elective model ensures that all students reach a basic level of competency in all forms of practice, but it allows them to develop additional skills and confidence in their own areas of interest. This style of curriculum is ideal for the college’s mandate, which is to provide veterinarians for all types of practice in Western Canada. This model also fits in well with the fact that approximately 50 per cent of WCVM graduates enter mixed animal practice.
- The core-elective model of curriculum is supported by the college’s diverse clinical caseload that provides access to all common species and the ideal mix of referral cases and first-opinion cases.
- WCVM’s position within Western Canada (geographically and through its interprovincial agreement) means that the college is deeply embedded in the pet-owning and agricultural communities. As a result, the college can provide our students with access to all types of clinical and teaching case material.
- The WCVM curriculum has been developed to specifically minimize student stress by specifically managing course and exam schedules. See Standard 11.4 for more details.

The two main weaknesses of the WCVM curriculum are the following:

- At times, the WCVM has challenges recruiting faculty members to fill some specialties.
- Over time, faculty have attempted to cover an increasing amount of content in the space available. Some instructors tend to cover specialized material that goes beyond the core knowledge required of new veterinary graduates. We will address this issue in the curriculum renewal.

9.5 Preceptorships and externships

The final-year clinical program consists of 32 weeks. Of these, 18 weeks are considered core and consist of the following:

- Diagnostic pathology – two weeks
- Medical imaging – two weeks
- Small animal medicine – four weeks
- Anesthesiology – four weeks

Students can choose the remainder from a variety of rotations (see Curriculum Digest). While most of these rotations are offered at the WCVM, a small proportion of them are offered at external sites (external rotations) to take advantage of specific specialties or caseloads (see Curriculum Digest).
In addition, students can participate in up to four weeks of elective programming. In the case of electives, students must work with a faculty adviser to develop their own rotation at an off-campus site. They must develop their own learning objectives, and the rotation must be approved by the Fourth-year Teachers Committee.

**Assessment:** Based on our outcomes assessment data, we recognized that our fourth-year grading system needed improvement. We are in the process of completely overhauling our final-year assessment methods with the goal of developing a more standardized, objective measure that directly relates to the COE competencies.

### 9.6 The Curriculum Digest

A copy of the WCVM curriculum digest is available to the accreditation site team members. See Appendix 9.1, Table A, which demonstrates where key areas are taught in the curriculum.

### 9.7 Plans for curricular revisions

Now that the WCVM has completed its 2015 curriculum review, the college is focusing on a comprehensive curriculum renewal. Our primary goal is to continue to refine learning objectives and outcomes, and then develop clearly defined entrustable professional activities (EPAs). These EPAs will be broken down into a series of directly observed procedures (DOPs) and objectively scored clinical examinations (OSCEs). Curricular arcs will be traced back through all four years and will facilitate the ongoing process of identifying redundant and omitted materials.

### 9.8 Testing/grading

The following information is found in the WCVM student handbook that will be available to the accreditation site team (www.usask.ca/wcvm/undergrad_students/Student_Handbook1/index.php).

**Standards of academic performance**

- The minimum passing grade for all courses in the DVM program is 50 per cent.
- To be promoted, a student must pass all courses (50 per cent) taken during the regular academic year and must attain a weighted average of 60 per cent or better.
- At the end of each academic year, faculty will review the performance of all students and make recommendations according to accepted policy.
- The following applies to the VINT 580 course (fourth-year clinical rotations):
  - i. A minimum grade of 50 per cent is required in each rotation and a cumulative average of 60 per cent is required for successful completion.
  - ii. A student obtaining less than 50 per cent 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 in accordance with the individual rotation requirements as outlined in the 580 Student Handbook. This privilege will be granted only once for the entire academic year.
  - iii. Failure to successfully upgrade the rotation …, failure of a second rotation or failure to obtain a weighted average of 60 per cent constitutes failure of the course. *(Note: Such a student, at the discretion of the faculty, may be permitted an alternative opportunity to improve their grade or to repeat the year. A student repeating the year would be required to meet the requirements for promotion as outlined above).*

The academic standards at WCVM are overseen by the U of S and are documented in the University "Academic Courses Policy on Class Delivery, Examinations, and Assessment of Student Learning," [http://policies.usask.ca/policies/academic-affairs/academic-courses.php](http://policies.usask.ca/policies/academic-affairs/academic-courses.php)
9.9 Cultural opportunities for students

In the first-year Survey of Veterinary Medicine course, veterinarians from all walks of life and backgrounds come to talk about their careers and life experiences with the veterinary students. The guest speakers include veterinarians from Indigenous backgrounds and veterinarians who are working with under-served communities.

In the second-year Production Animal course, we discuss cultural differences in food and food supply. Students have also had the opportunity to participate in the Muslim holiday feast — Eid al-Adha — at a local sheep farm. In the third-year Sustainable Development elective course, students are exposed to the cultural, political and social factors that affect developing countries.

In the final year, our wellness rotation provides routine small animal veterinary services to the public including low-income families and the SPCA. This rotation involves dealing with all groups of society, and it covers some of the professional skills required to interact effectively with these groups. Our field service rotations also provide opportunities to interact with all aspects of the public.

Our major development in this area has been our final-year Service Learning Program that we operate in partnership with remote and under-served Indigenous communities in northern Saskatchewan. We offer two rotations with instruction on cultural awareness before the students travel to the area where they work with volunteers to operate an intensive animal care clinic with vaccines, routine wellness and a spay-neuter program.

The WCVM established the Dean’s Advisory Committee on Indigenous Engagement. The committee has four goals: to enhance the Indigenous student numbers, to increase the numbers of Indigenous faculty and staff, to incorporate aspects of Aboriginal culture, history and knowledge in the content of the DVM curriculum, and to create a welcoming environment for Indigenous people. We completed a major Indigenous mural on the first floor and have installed several other examples of Aboriginal artwork throughout the college. The committee has also developed a lunchtime lecture series that has been running throughout the past year. More details about these activities will be available in the study room.
Standard 10
Research Programs
Standard 10 Research Programs

Research funding at the WCVM has continued to be strong and stable. With rare exceptions, all WCVM faculty engage in research activity varying from 0.3 to 0.6 FTE. The numbers of graduate students, peer-reviewed publications and undergraduate research students have all increased slightly or remained stable over the last five years — a reflection of the health and sustainability of our research program.

One Health is a signature research area for the U of S, and the WCVM has significantly increased its participation in this area over the past seven years. For example, the college led the creation of an international partnership in graduate education — the Integrated Training Program in Infectious Diseases, Food Safety and Public Policy (ITraP). Veterinary students from the WCVM and partner institutions have participated in the program’s international summer schools in Saskatchewan, Germany and India, and they have attended One Health workshops held at the U of S. This successful initiative has helped to increase the WCVM’s global profile in One Health and is one example of how the WCVM’s thriving research program has enriched the learning experience for veterinary students at the college.

10.1 Research areas of emphasis and excellence

With overlap, research at the WCVM fits within one of three major theme areas:

- biomedical research
- One Health research
- animal health and management

In these major theme areas, the WCVM identifies five areas of emphasis and excellence. In virtually all of these signature areas, the college’s faculty have developed successful research teams investigating different aspects of basic and clinical sciences. Examples of undergraduate research in these areas are included in Appendix 10.3.

Reproduction physiology and medicine: The highly productive One Reproductive Health Research group focuses its research on the regulation and manipulation of ovarian follicular growth and ovulation, reproductive endocrinology, molecular aspects of placentation function, and gamete handling and freezing. The group’s members work with domestic farm animals, native hoofstock and animal-based models for investigating human reproduction. The researchers collaborate with scientists from the colleges of medicine and agriculture along with researchers embedded in our college from Agriculture and Agri-Food Canada (AAFC). Many of the college’s DVM students have worked alongside these specialists on a variety of projects through summer student research placements and have received valuable mentorship.

Epidemiology, food safety and public health: The WCVM is recognized for its expertise and research activity in these areas. Some of the faculty in epidemiology have joint appointments with the U of S School of Public Health and work with an embedded scientist from the Public Health Agency of Canada. Faculty are involved in research that addresses One Health, infectious disease, water security and food security — all major signature areas of research at the U of S. Their research focuses on everything from zoonotic diseases of companion animals in northern rural, remote or First Nations communities to epidemiological factors affecting the health and productivity of cow-calf herds. In 2016 this group created the U of S Centre for Applied Epidemiology, which provides statistical and experiment design support to the WCVM Disease Investigation Unit and to faculty, undergraduate summer research students and graduate students.
Toxicology and aquatic ecology: A number of our faculty have joint appointments with the U of S Toxicology Centre. Their research areas include both biomedical and environmental toxicology. This group has wide-reaching collaborations with industry and governmental agencies and is arguably the strongest group of its kind in Canada. This research area also supports a very robust undergraduate and graduate research program, and some toxicology students go on to apply for the college's DVM program.

Infectious diseases and vaccinology: The WCVM has a significant strength in pathobiology. Faculty have gained international and national recognition for their work in the following areas: the biology of circoviruses and herpesviruses, antimicrobial resistance, coronavirus infections in bats, bovine mastitis, zoonotic protozoal and parasitic diseases in livestock and wildlife, bovine mastitis, pulmonary and gastrointestinal diseases in poultry and swine, and research work in porcine reproductive and respiratory syndrome virus. The new Level 3 International Vaccine Centre (part of VIDO-InterVac) has further strengthened programs. The Canadian Wildlife Health Cooperative (CWHC), a national partnership of Canadian veterinary colleges and the B.C. Animal Health Centre, has its headquarters at the WCVM and is actively involved in wildlife health surveillance research. Students are eager to conduct summer research with this group since their work often involves field work in the Canadian Arctic and other regions of the country.

Translational and comparative research in equine and companion animals: Examples of this group's research efforts include translational research in oncology and medicine, stem cell therapy for wound management in horses, and endometritis research using canine models. Their research includes spontaneous and inherited animal diseases as well as animal models to investigate aspects of pathobiology or response to treatment. WCVM faculty collaborate broadly across campus including the colleges of medicine, pharmacy, engineering and agriculture. Internal grants provide significant research support and these projects are frequently part of clinical MSc-MVSc resident training programs. Several faculty members routinely mentor veterinary students through the college's summer research program. In turn, these students work closely with clinical residents on their projects and gain firsthand experience with graduate-level clinical research and education.

10.1.a Faculty research activity

Faculty research activity is supported by a wide variety of research facilities including an Animal Care Unit (ACU) for small and large animals, the Goodale Research and Teaching Farm, and a research wing with two well-equipped, multi-user laboratories. The WCVM building also includes individual faculty labs, and the college plans to continue upgrading these lab spaces and its graduate student offices. In addition, the new WCVM Imaging Centre provides U of S researchers with access to specialized scanning and transmission microscopes. WCVM faculty members have contributed to the college's research planning through their participation on two research task force reports. The WCVM is working in partnership with the U of S College of Agriculture and Bioresources, the provincial and federal governments, and several livestock industry partners to build the Livestock and Forage Centre of Excellence (LFCE) as a hub for research, teaching and outreach. The LFCE will include a new 1,600-head beef cattle feedlot, a 500-head cow-calf facility and extensive renovations to the Goodale Farm. The LFCE's first two phases will be completed by March 2018.

Please review the following tables in Appendix 10 for more details about faculty research activity:

- Appendix 10.1.a, Table D, Presentation of original research in scientific meetings
- Appendix 10.1.a, Examples of research awards won by WCVM faculty (2012-2017)
- Appendix 10.1.a, Table E, Faculty research activity
- Appendix 10.3.b, Table B, Faculty involvement in research
- Appendix 10.3.c, Table C, Research grants sponsored extramurally

10.2 Student experiences

See Appendix 10.2 for a complete description of research-related topics that are presented in the college's DVM curriculum, based on data gathered through the college's curriculum map.
10.2.a Opportunities for DVM students to participate in research

The WCVM’s Undergraduate Student Summer Research Program (UGSSRP) is a flagship program at the U of S. The program’s main goal is to provide undergraduate students with an experiential learning opportunity that engages them in basic or clinical science research. Through this experience, our DVM students explore research as an alternative career opportunity and the role of research in driving progress and innovation in animal health and welfare.

The UGSSRP receives stable funding through college operating funds, provincial agriculture development support (for promoting undergraduate livestock research), the Merck/NIH Veterinary Scholars program, the Zoetis Summer Student research funding, and the U of S Office of the Provost. Some students — mostly non-DVM undergraduate students — are also supported through external faculty grants such as NSERC and the Saskatchewan Health Research Foundation (SHRF).

All DVM summer research students are required to participate in the WCVM’s annual Undergraduate Summer Student Research Poster Competition and many students present their research at national and international conferences. Seminars and training programs enrich the student experience and include topics such as library resources/literature review, statistics, effective oral abstract presentations, career opportunities, laboratory safety, ethics, biosafety and animal care. The college provides communications workshops with the goal of teaching the students to concisely present their research to a general audience. Students are also required to write a research news article for publication in the college’s online news site. Appendix 10.2.a summarizes the trends in our undergraduate summer research program over the last six years and shows a slight growth in the number of students enrolled in the college’s dual DVM-MSc program.

Programs that promote research and extension for veterinary students include the Emerging Leaders of the Americas Program (ELAP). Administered by Global Affairs Canada, this program allows WCVM faculty to host DVM undergraduate students or DVM graduate students from several South American countries for a four-month or six-month research externship, respectively. Since the college began participating in this program in 2013, three of the nine ELAP veterinary students have returned to pursue graduate degrees at the college. Global Vets is another program that supports veterinary students’ research and extension efforts. With annual support from the WCVM, veterinary students can investigate international animal health care challenges in various countries through the Global Vets program.

10.2.b College research seminars and presentations for veterinary students

Throughout the academic year, undergraduate students are invited to attend all WCVM research seminars — including presentations that are part of the college’s visiting lecturer and visitorship programs. One prime example is the WCVM’s prestigious D.L.T. Smith Lecture Series that enables the WCVM community to interact with preeminent scientists from around the world. Their visits enrich the college’s teaching and research programs as well as its clinical and diagnostic services. Their valuable presentations are available to faculty, staff, graduate and undergraduate students as well as to other members of the U of S community. They help to profile the role of research as well as the diverse roles that veterinarians play in advancing animal and human health. In addition, these seminars inspire faculty and students and help to highlight the rewards of being engaged in the scientific discovery mission. See Appendix 10.2.b for a list of speakers who have been invited for the D.L.T. Smith Lecture series.

During the academic year, the WCVM hosts numerous other seminars that highlight current research or showcase external speakers to introduce new ideas and knowledge. The college’s student associations organize some of these special presentations. All WCVM departments have a graduate student seminar series during which graduate students present their research findings or summarize the latest knowledge and research related to a specific disease or condition. Undergraduate students are welcome to attend, and in many cases, senior students on clinical rotations are required to attend these seminars. The WCVM annually hosts both a graduate and undergraduate research poster competition, and each event usually attracts between 30 and 40 competitors. A panel of judges reviews all posters and allocates awards for the top presentations. Awards are also given to DVM students for the best research images.
10.2.c Veterinary student research and graduate education

Veterinary students who participate in our undergraduate student research program have faculty role models who support their individual research projects. In addition to this program, veterinary students can also take research electives in the third and fourth years of the DVM program. During their third year, students can devote two to four weeks to a research project that’s arranged in collaboration with a faculty mentor. While there are no formal seminars for this elective course, students are expected to have regular contact with their supervisors and most of their course grade comes from an objective component. Students must complete a small prospective or retrospective research project, develop a research article based on a previous summer research project or conduct a literature review along with a grant proposal. The fourth-year research elective consists of a two-week rotation with formal, research-related seminars. Students must attend all seminars and produce a research paper that forms the basis of their final grade.

See Appendix 10.2 to view a list of DVM courses that feature research topics. Veterinary students who work in the VMC’s small and large animal clinics during the summer months or during fourth-year rotations may also participate in data collection with residents-graduate students so they can gain first-hand experience with clinical research. Based on our outcomes data, a proportion of our graduates will enter advanced graduate training programs several years after graduation. This was particularly true for the college’s Class of 2014: two years after graduating, nearly 25 per cent of respondents were enrolled in post-graduate training. For students selected to be in the Merial Veterinary Scholars program, 50 per cent of students have pursued further graduate training.

10.3 Additional research information

- Appendix 10.3.a, Table A, Veterinary student involvement in research
- Appendix 10.3.b, Table B, Faculty involvement in research
- Appendix 10.3.c, Table C, Research grants sponsored extramurally
Standard 11
Outcomes Assessment
Standard 11 Outcomes Assessment

The WCVM employs a wide variety of methodologies and measures for assessing learning outcomes and competencies in the DVM curriculum. These outcomes are collected and analyzed to inform our ongoing curriculum enhancements. Launched with a comprehensive curriculum review in the fall of 2015, the college has continued to implement a co-ordinated, competency-based evaluation program and process for improvement.

Recognizing an ongoing emphasis on clinical competencies and building on our relationships with medical schools at the U of S and University of Toronto, we are working to define and assess entrustable professional activities (EPAs) for new veterinary graduates. EPAs are tasks or responsibilities that are entrusted to the learners' unsupervised execution once they have demonstrated appropriate competence. An EPA may include multiple competencies and may be mapped to multiple points in the curriculum. Demonstrated EPAs (DEPAs) are typically assessed through direct observation, particularly in the clinical setting. Other assessment methods may include simulation exercises, objective structured clinical examinations (OSCEs), and case or chart reviews.

The college’s primary measures used for assessing learning outcomes include the following:

- NAVLE results (full analysis 2007-2016)
- Comprehensive Insightsrix surveys
  - Annual exit surveys: 2008 to present
  - Post-graduation surveys: 2006 to present (conducted every other year)
  - Employer surveys: 2010 to present (conducted every other year)
- Annual student focus groups
  - Random selection of students from each class meet with Student Services for a comprehensive debrief at end of year. Years 1 to 3: 2010 to present; Year 4: 2016, 2017
- Graduate self-assessment competence survey (new in 2016)
- Ongoing informal feedback from graduates, employers, clients and stakeholders
- Third- and final-year skills logs
- Final-year DEPAs
- Final-year clinical rotation assessments:
  - direct observation
  - case review
  - records and chart review
- Years 1 to 3 courses (selected courses with specific competency-based learning objectives including surgery courses, bovine clinical procedures, radiology, clinical pathology, communication). Assessments include the following:
  - simulation exercises
  - direct observation of skills and performance
- Ongoing external survey data: (survey of veterinarians for common skills)
- OSCE evaluation in Years 1 to 3

11.1 Student educational outcomes

11.1.a Attaining entry-level competence in skills

The goal of the curriculum is to ensure that all graduating veterinarians develop and demonstrate EPAs across all competency areas. Final-year assessments document that students are meeting the core competencies required for entry into veterinary practice. We document core competencies in the final year through assessments in the 18 weeks
of core rotations and through demonstrated EPAs (formerly called OSCEs). The students can further develop selected skills and competencies during the 14 weeks of elective rotations.

Analysis of outcomes demonstrates that the system to measure competence is working well to:
- identify students with deficiencies and provide formative, timely feedback so they can improve their skills
- identify students who need remediation and ensure that they improve or correct their performance
- provide feedback to faculty and the Curriculum Committee for continuous program improvement

Determining the core competencies of graduating students with diverse career paths is a challenge, especially given the general nature of the veterinary practices in the four western Canadian provinces. Balancing the expectations of faculty who are experts in their field and the expectations of students who have a clearly defined career path with the principles of general graduate competency provides continual opportunities for curriculum development.

The WCVM's most recent graduating class is an ideal example of that career diversity for which the curriculum must prepare. The 2017 graduates' career choices included:
- aquaculture (one)
- poultry production (two)
- swine production (three)
- dairy practice (three)
- laboratory animal medicine (one)
- beef production (five)
- advanced reproductive technologies for cattle (one)
- internship programs in small animal (nine) or equine practices (four)

The remainder of the class have accepted a variety of mixed/large animal positions (44 per cent of graduates) and predominately small animal practices (53 per cent of graduates) across the four western provinces.

Core competencies are documented through the assessments in the 18 weeks of core rotations in the final year (VINT 580) program and DEPAs. The students can further develop their program through the remaining 14 weeks of elective rotations. Competencies are also measured strategically during Years 1 to 3. The following tables outline competency assessment. Note: the methods of assessment in final-year clinical rotations that do not involve DEPAs include direct observation, case review, and records and chart review.

### Competency 1

Comprehensive patient diagnosis (problem-solving skills), appropriate use of diagnostic testing, and record management

<table>
<thead>
<tr>
<th>Competency Measures</th>
<th>Graduating year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Physical exam DEPA</td>
<td>85.8 (5.3)</td>
</tr>
<tr>
<td>Medical imaging DEPA</td>
<td>86.5 (6.4)</td>
</tr>
<tr>
<td>Pathology DEPA</td>
<td>84.6 (5.6)</td>
</tr>
<tr>
<td>Clinical pathology DEPA</td>
<td>79 (10.1)</td>
</tr>
</tbody>
</table>

We have introduced a new specific DEPA in medical records for 2017-2018. Before this year, it was indirectly assessed through the clinical rotation grade. Our medical records are evaluated regularly through the SVMA accreditation practice that view completeness of medical records as a serious issue.
**Competency 2**

Comprehensive treatment planning including patient referral when indicated

**Outcome Measure**

<table>
<thead>
<tr>
<th>Graduating year</th>
<th>Class average (SD): No. requiring remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Diagnostic approach final year DEPA</td>
<td>86.3 (7.3)</td>
</tr>
</tbody>
</table>

In addition to the DEPA, we indirectly assess problem solving, interpretation of diagnostic tests, diagnostic approach and judgement through our 580 rotations — specifically through evaluation of the daily SOAPs.

**Competency 3**

Anesthesia and pain management, patient welfare

**Outcome Measure**

<table>
<thead>
<tr>
<th>Graduating year</th>
<th>Class average (SD): No. requiring remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Anesthesia DEPA</td>
<td>91.8 (5.6)</td>
</tr>
</tbody>
</table>

Patient welfare is addressed during the wellness and field service rotations.

**Competency 4**

Basic surgery skills and case management

**Outcome Measure**

<table>
<thead>
<tr>
<th>Graduating year</th>
<th>Class average (SD): No. requiring remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Surgery DEPA</td>
<td>88.5(4)</td>
</tr>
<tr>
<td>Surgery core 580</td>
<td>79.5</td>
</tr>
<tr>
<td>Large animal surgery 580</td>
<td>76.8</td>
</tr>
</tbody>
</table>

Surgical skills are clearly assessed through OSCEs in Years 1 to 3 and the final-year DEPA. Case management is assessed through the 580 rotations. External validation from employer survey: 72 per cent satisfaction for small animal surgery.

**Competency 5**

Basic medicine skills and case management

**Outcome Measure**

<table>
<thead>
<tr>
<th>Graduating year</th>
<th>Class average (SD): No. requiring remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Large animal medicine 580</td>
<td>79.5</td>
</tr>
<tr>
<td>Small animal medicine 580</td>
<td>75.5</td>
</tr>
<tr>
<td>Large animal surgery 580</td>
<td>76.8</td>
</tr>
</tbody>
</table>
Graduating year

<table>
<thead>
<tr>
<th>Class average (SD): No. requiring remediation</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field service 580</td>
<td>77.8</td>
<td>79.9</td>
<td>80.6</td>
<td>79.5</td>
<td>78.6</td>
</tr>
<tr>
<td>Wellness 580</td>
<td>*</td>
<td>81.2</td>
<td>79.2</td>
<td>79.9</td>
<td>79.9</td>
</tr>
</tbody>
</table>

*The wellness rotation was created in 2013.

Medicine skills and case management are largely assessed through direct observation and chart review during the 580 rotations. In addition, skill performance is directly assessed through the final-year, student skill logs. External validation from employer survey: 93 per cent satisfaction for food animal medicine and 94 per cent satisfaction for small animal medicine (two of our highest-rated outcomes).

Competency 6

Emergency and intensive care case management

Outcome Measure

| Graduating year |
|-----------------|------|------|------|------|------|
| Class average (SD): No. requiring remediation | 2013 | 2014 | 2015 | 2016 | 2017 |
| Large animal medicine 580 | 79.5 | 80.9 | 82 | 81.7 | 80.1 |
| Small animal medicine 580 | 75.5 | 74.9 | 75.6 | 2 | 75.8 |
| Large animal surgery 580 | 76.8 | 78.3 | 77.4 | 76.6 | 78.7 |
| Field service 580 | 77.8 | 79.9 | 80.6 | 79.5 | 78.6 |

Emergency and critical cases are seen daily, mainly through the small animal medicine and small animal surgery rotations. Large animal emergency and critical cases are seen through large animal medicine, large animal surgery and field service rotations. The philosophy of this school has been that all cases should be approached in the same way, and that part of the assessment should include prioritizing need and allocating resources as required. That is why we do not have a separate rotation to cover Competency 6 (emergency and intensive care case management), as it has been subsumed under the other services and rotations. Based on results collected through our employer surveys, this approach appears to work well. External validation from employer survey: 68 per cent were satisfied or very satisfied.

Competency 7

Understanding of health promotion and biosecurity, prevention and control of disease including zoonoses and principles of food safety

Outcome Measure

| Graduating year |
|-----------------|------|------|------|------|------|
| Class average (SD): No. requiring remediation | 2013 | 2014 | 2015 | 2016 | 2017 |
| Evidence-based medicine VLAC 320 | 83.4 | 86.1 | 84.1 | 84.1 | 86.4 |
| Food animal production medicine VLAC 482 | 72.1 | 73.4 | 73.6 | 78.5 | 76.5 |

This material is assessed throughout the curriculum — particularly in the second-year evidence-based medicine course that covers all aspects, and in the third-year food animal production course that has a focus on biosecurity, disease control and food safety. External validation from employer survey: 73 per cent satisfaction in food safety.
### Competency 8

**Client communication and ethical conduct**

**Outcome Measure**

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Graduating year</th>
<th>Class average (SD): No. requiring remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
<td>2014</td>
</tr>
<tr>
<td>Year 3 communication</td>
<td>n/a</td>
<td>85.4</td>
</tr>
<tr>
<td>Standardized patient scenarios VINT 415</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History taking DEPA</td>
<td>86.6(6)</td>
<td>1</td>
</tr>
<tr>
<td>Discharge notes DEPA</td>
<td>84.5(6.7)</td>
<td>82.3 (8.2)</td>
</tr>
</tbody>
</table>

Client communication is assessed in the DVM program’s final year through the two DEPAs. However, it is also directly assessed through the observation of student interactions with standardized patients in the third-year communication course (the evaluation in this course is based almost entirely on the student performance in the standardized patient sessions). Professionalism and ethical conduct are assessed on all final-year rotations — based in part on expectations from the veterinarians’ oath and regulatory standards — and students have been successfully remediated in all cases where issues are observed. External validation from employer survey: 78 percent satisfaction in communication skills.

### Competency 9

**Critical analysis of new information and research findings relevant to veterinary medicine**

**Outcome Measure**

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Graduating year</th>
<th>Class average (SD): No. requiring remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
<td>2014</td>
</tr>
<tr>
<td>Evidence-based medicine course VLAC 320</td>
<td>83.4</td>
<td>86.1</td>
</tr>
<tr>
<td>Year 3 nutrition courses</td>
<td>VSAC 445</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>VLAC 493</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>VLAC 490</td>
<td>n/a</td>
</tr>
</tbody>
</table>

The entire curriculum is based on critical analysis of new information. Examples include specific evaluation in Years 2 and 3 based on critical review of the literature. In the evidence-based medicine course (Year 2), students are assessed on critical review of a research paper. In the nutrition courses, students are assessed on the ability to pose a question, research the question and present an answer based on critical review of the literature.

Assessments in our final-year program ensure that WCVM students are meeting the core competencies required for entry to veterinary practice. The system is operating well at finding deficiencies and providing formative feedback to students so they can improve their skills. When necessary, it also gives them opportunities to remediate their performance.

One of the WCVM’s current initiatives is to expand the use of a recently developed curriculum map. Competencies are increasingly being measured incrementally during Years 1 to 3. We most commonly assess certain clinical and non-clinical skills through a number of class evaluations. In 2017 we introduced OSCEs to measure knowledge and skill development in Year 1. Stations included topics such as dosage calculation and identification of anatomic landmarks. Initial student feedback was very positive — students indicated that the process improved their confidence and preparedness for clinical jobs during the summer months. Many of these competencies are examples of “scaffolded learning” where material from each year is built upon in subsequent years to develop the final competencies and EPAs.
Based on assessment of our learning outcomes, we plan to add four additional DEPAs for 2017-2018: medical records, referral, transfer of cases and treatment planning.

11.1.b NAVLE school score report data and passage rates

Our students perform well above average on the NAVLE, and in the past five years, all but two WCVM students have passed the exam at graduation with a 98 per cent first-pass rate and an average score of 522 (see Appendix 11.1.b, Table A). It is also noteworthy that our students perform above average in all species, validating that our students are well prepared for mixed animal practice and supporting our mandate from the western provinces.

We have recently developed a technique for using the NAVLE school report to benchmark the WCVM against other veterinary colleges by using Z-scores. This allows us to standardize student performance and compare year to year or with other veterinary colleges (see Appendix 11.2.d, Figure 6). Our students score 0.75 standard deviation above the mean, placing them in the top 22 percentile of all students taking the exam. In addition, the overall trend is one of improvement.

11.1.c Assessment of graduating students and alumni

For the last decade, we have employed Insightsrix, a Saskatoon-based survey and analysis company, to administer surveys of our graduating students and alumni two years after graduation. The surveys also collect demographic and employment information, and we use results to assess all aspects of the DVM program and to indicate how well alumni believe their education prepared them for a veterinary career. Copies of all surveys will be made available to the accreditation team.

Graduates and alumni consistently express overall satisfaction with the program (see Appendix 11.1.c, Figure 1 and Figure 2). Here are some key findings:

- approximately 80 per cent of graduating students are satisfied or very satisfied with the program. The satisfaction ratings have been above 70 per cent for the last eight years.
- over the past 10 years, more than 90 per cent of alumni express satisfaction two years after graduation
- 98 per cent of alumni felt they were prepared for their careers two years after graduation

It is worth noting that the results of satisfaction two years after graduation are greater than they are at the point of graduation. These results indicate that our students exhibit a degree of unconscious competence at the time of graduation.

At graduation, students identify areas of strength to include small animal medicine, ophthalmology and clinical pathology. Areas identified for improvement include nutrition, exotics, equine medicine/surgery and veterinary business. However, on a scale from 1 to 5, most aggregate scores are above 3 (see Appendix 11.1.c, Figure 1). At two years after graduation, WCVM alumni identify similar strengths, but acknowledge that there is still room for improvement in the areas of dentistry, exotics and nutrition (see Appendix 11.1.c, Figure 3).

The data relating to specific subject areas can be difficult to interpret as it is aggregate data from the entire class with varied areas of interest. Regardless, the data has been used over the past 10 years to continuously improve outlying classes. Examples of changes and progress include:

- Dentistry (developing a stand-alone course in Year 3 and increasing fourth-year elective access)
- Oncology (increasing student exposure in Year 3 and increasing fourth-year elective access)
- Exotics (hiring a second faculty member)
- Medical imaging (hired new faculty)
- Veterinary business skills (increasing the third-year core course and developing a new first-year introductory course)
- Nutrition — hiring a new clinical nutritionist; requiring a nutrition course in Year 3; and beginning an overhaul of the introductory nutrition course in Year 1
While perceptions of practice management skills have improved, we have also become aware that our expectations in this area are incorrect. Since "practice management" is not considered an entry-level skill for veterinarians, we must focus on basic financial literacy and business competence in the curriculum. For more meaningful assessment, the survey should also be reworded to accurately reflect the entry-level learning objectives. The changes made in nutrition are more recent and will not show up in the graduate and alumni survey reports for several years.

Graduating students have identified the instruction of equine medicine and surgery as one opportunity for improvement. To address this area, we will reallocate the topics and material presented in the core and elective components so the core material addresses competencies necessary for the graduating mixed animal practitioner. The elective material will expose interested students to the skills required for an emphasis on equine practice. In addition, adding the busy field service as a core rotation should expose students to more cases and help students develop and refine the necessary competencies. In general, we need to clearly articulate the entry-level learning objectives and organize the curriculum to develop those competencies.

A second area for improvement relates to critical care, which also requires the establishment of appropriate learning objectives. True critical care is not an entry-level skill, and our employers are generally satisfied in this area (employer survey reports 68 per cent satisfaction). This year, we have made changes to the fourth-year small animal medicine clinical rotation that restrict student work hours. We will also implement a redesign of this rotation into three areas of focus that include emergency, first opinion and referral service. We anticipate that these changes will help to improve client management and student learning in each area of focus.

Graduates and alumni identified a third opportunity for improvement: including more hands-on experience in the DVM program. We continue to address this need in a variety of ways, and the BJ Hughes Centre for Clinical Learning is one of the most recent and exciting additions to our program. This simulation centre will provide new opportunities for students to develop their clinical skills and to further support the move toward a competency-based curriculum. WCVM faculty are developing learning objectives for clinical skills that include various levels of simulation fidelity, which will be incorporated at multiple levels within the curriculum.

In 2016, we also began a self-assessment graduation survey based on a tool developed by the University of British Columbia's Faculty of Medicine. While this tool is still under development, the initial survey results show that our veterinary students recognize their own competency at the point of graduation.

11.1.d Assessments by employers of graduates

Insightrix is also employed to administer a similar survey to western Canadian veterinary practices about their experiences employing our graduates (copies of all surveys will be made available to the accreditation team). The employers’ responses are interesting as they are observing competency. As well, they only answer questions relating directly to their area of practice — meaning that the data is more objective and more targeted (see Appendix 11.1.d, Figure 4 and Figure 5).

Our very diverse employers say that they are generally satisfied to very satisfied with entry-level competencies across a wide range of practice types (79 per cent). They are particularly satisfied with food animal medicine, food safety, small animal surgery, diagnostic pathology and small animal medicine. By identifying these areas as the top five, the employers’ responses indicate the breadth of our program and our ability to serve the mixed animal community. The employer survey results are similar to the results from the graduate surveys except that employers generally express a higher level of satisfaction for all aspects of the college’s DVM program.

Data from the surveys show that the WCVM is performing well in all areas, but we continue to use the survey responses to fine tune and improve the program.
11.2 Program outcomes

11.2.a Attrition rates

The relative attrition rate is low at WCVM, and prior to this last year, absolute attrition was almost non-existent (see Appendix 11.2.a, Table B). We credit this to the success of our admissions process, our support services and the quality of our program.

Students who actually fail the year are rare. These students are given the opportunity to repeat the year, and they go on to be successful in their careers. A number of students have faced health or family-related emergencies, and these students may defer the year and return when they are ready. In 2016, one month into the program, a first-year student permanently withdrew from the program for personal reasons. In 2016–17, one first-year student was dismissed for academic misconduct, and one final-year student left the program after the NAVLE results were published. This particular student refused any assistance from the Student Services Office.

Action required: None

11.2.b Employment rates of graduates

Our employment rate is measured three weeks before graduation. By that time, most of our students have already finalized employment contracts with an employment rate above 80 per cent. Our employment data is based on the Insightrix survey that is administered in the first week of April every year. Not all students have started to look for work at that stage. However, we still easily meet the accreditation requirements. While the response rate to our two-year post-graduation survey isn't as strong, we still have employment rates in the veterinary field above 95 per cent. See Appendix 11.2.b, Table C, for employment statistics.

Action required: None.

11.2.c Assessment by faculty

Our faculty has the facilities and equipment required to teach effectively. The VMC services are split into three sections: Large Animal, Small Animal and Field Service. Leadership is provided by the new associate dean (clinical programs) as of August 1, 2017. In addition, a faculty assistant director supports each section of the VMC. The assistant directors hold meetings with the faculty, staff and clinicians who are working in their area of the clinic. We have recently begun the process of exit interviews for all residents, and we will include their feedback for consideration of program, operational and facility improvements.

The VMC is also overseen by the college's executive through the VMC Oversight Committee that reviews facility and equipment needs as well as the VMC caseload and trends. An adequate budget for maintenance and new or replacement equipment is prepared each year, and the sections are consulted as part of the process of determining a prioritized list. Most requests have been accommodated, and the hospital is well equipped.

At the completion of each academic year, the performance of each class is assessed by the respective Year Teachers Committee. The WCVM Faculty Committee reviews overall student performance and then votes to promote the successful students and develop remediation strategies for students who have not been successful. Faculty members are routinely satisfied with the transitions between the years in the program.

11.2.d Additional assessments

A variety of other direct and indirect measures are considered for assessing program outcomes. These include the success of our students in entering advanced training programs (see Appendix 11.2.d, Table D) as well as student awards.

Our college has established a significant fund of awards and bursaries: each year, the college distributes approximately $300,000 in academic awards to the undergraduate student body for excellence in the veterinary program, leadership, and other related technical and non-technical skills.

We review the AAVMC comparative data report to benchmark aspects of our program against other veterinary institutions. We use detailed student focus groups and student self-assessment to continuously benchmark our program.
against previous performance. As discussed previously, we have also developed a method of using the NAVLE data to benchmark our performance over time and to allow direct benchmarking with other institutions using the aggregate data (see Appendix 11.2.d, Figure 6).

### 11.3 Institutional outcomes

#### 11.3.a Adequacy of resources and organizational structure

The WCVM is a regional college that is supported by a five-year interprovincial funding agreement. As such, the college operates with some degree of independence from the U of S in managing its resources, essentially employing a responsibility centred management (RCM) model. The operating budget and all tuition come directly to the college. Funds can be strategically allocated within the college and carried over annually. This model allows the college to manage funds and support the program strategically. The operating budget allocation has annually increased by two per cent since 2012. While this increase does not equal the cost to continue, we have managed a balanced budget through the strategic use of resources and other revenue streams.

Our location at the U of S offers great opportunity for program support. Agriculture is a major industry in the province, and this important sector of the provincial economy supports a strong agriculture college at the university. Our close relationship with the U of S College of Agriculture and Bioresources provides excellent opportunities for traditional production animal partnerships and collaboration. In addition, the U of S is the only university in Canada with a full range of health science colleges and schools located on the same campus. This provides excellent structure and opportunities to capitalize on partnerships with the health sciences and to support One Health activities. The U of S is also home to two national-level facilities that have an impact on the college. The Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac) is closely aligned with the college and enhances research and graduate training in the area of infectious disease. The Canadian Light Source (CLS) includes a unique biomedical beamline that provides WCVM researchers with the opportunity to use enhanced imaging in animal health research.

The first live animal scan was conducted by the college as part of an interdisciplinary prostate study.

Our academic engagement with the health sciences includes the U of S Clinical Learning Resource Centre (CLRC). This modern, expansive simulation centre provides opportunities to take a large cohort of students through communication scenarios in a clinical setting using standardized patients managed and trained by CLRC professionals. Faculty members have also engaged in simulation training and joint scenarios. The CLRC group played an active, consulting role in the establishment of the veterinary college’s new BJ Hughes Centre for Clinical Learning, and they partner with us in ongoing development of simulation pedagogy.

The college also works closely with the U of S Gwenna Moss Centre for Teaching and Learning (GMCTL), which is a tremendous resource for faculty to engage in development of their pedagogy and scholarship of education. A GMCTL consultant has been consistently working with the college in education development. The WCVM also works with a veterinarian who specializes in human family practice and continuing medical education at the University of Toronto. This consultant has worked with the college in developing learning objectives and assessments — including the concepts of EPAs. These are two examples of how the college can commit resources to support the academic program and faculty development.

Teaching and learning have always been high priorities for WCVM faculty. To further reinforce this commitment, the College Review Committee has ensured that the scholarship of education is clearly supported and accepted as faculty creative activity for promotion and tenure. We have a large cohort of pre-tenure clinical faculty members who are working to expand research in teaching and learning.

The college participates in an integrated strategic planning process on the U of S campus, and we are just beginning a new round of planning. During our seven years of expansion and renovation, the strategic plan focused on completion of construction projects. The most recent strategic plan focused on curriculum and development of new academic programs — such as the college’s new Service Learning Program. The RCM budget model allows the college to invest in people and facilities in support of the academic programming and research enterprise. Examples include spousal hire opportunities, recruitment and retention efforts, and strategic bridging of positions. In addition, we have been able to continue with facility enhancements and upgrades. In particular, we have upgraded classrooms, locker
rooms, the cafeteria and student lounge area, the library and the new learning commons — all of the areas where students spend their time.

The college has strategically addressed our structure in the VMC and leadership in clinical programming. We are in the process of changing from a hospital director model to an associate dean (clinical programs) model. This new structure places the VMC more directly under academic leadership. This change in structure is in response to assessments from faculty, staff and students who have all indicated that the teaching hospital’s integration in the academic mission should be strengthened. We have significant support from the GMCTL and from an external leadership consultant to help guide this change management. This change is another example where the freedom to manage college resources and the availability of resources on campus is beneficial for addressing academic program needs.

In summary, the college has adequate resources and appropriate organizational structure to support the academic mission. Over the last seven years, we have made significant investments in and improvements to the program and facilities.

11.3.b Evaluating progress in meeting the college’s mission

“The mission of the Western College of Veterinary Medicine is to provide veterinary education in Western Canada and to act as a centre of veterinary expertise and research.”

To ensure that we meet the needs of Western Canada, we invite the WCVM Advisory Council to gather at the college every year. The Advisory Council consists of representatives from the U of S, the four provincial veterinary medical associations, the offices of the provincial veterinarians, Canada’s chief veterinary officer, representatives of the region’s major educational institutions, representatives from the Ministry of Advanced Education (all four provinces), and WCVM student representatives. At this meeting, the college presents an annual report that outlines the college’s “deliverables” or commitments in seven key areas that are outlined in the IPA. WCVM representatives provides the Advisory Council with highlights from the past year and respond to any questions or comments raised by our provincial partners.

The WCVM dean is ex officio on two of the western provinces’ veterinary medical association councils and regularly attends all associations’ annual meetings. In addition, the dean meets regularly with representatives of the four provincial governments as well as representatives of the federal government. The college uses occasional surveys and multiple engagement opportunities with alumni, veterinary colleagues and the veterinary medical associations across the four western provinces to gather feedback and to ensure that it continues to meet its mission.

11.3.c Assessment of other outcomes

In 2016, we commissioned a U.S. firm — RTI International from North Carolina — to produce a socio-economic impact study that reported on the college’s impact on the four western provinces (a copy of the full report will be made available to the accreditation team). Key findings include the following:

- 2,491 of the 2,799 graduates of WCVM reside in Western Canada, representing 54 per cent of all veterinarians in the region.
- WCVM graduate work in all areas of veterinary medicine including industry, government, academia and public health.
- In the year of the study, the VMC cared for more than 37,000 animals including first-opinion cases, referral cases and cases managed through the field service.
- The WCVM has a culture rooted in partnerships with provincial governments and other stakeholders.
- WCVM research has made an impact on food animal health through discoveries in management practices, vaccinology and drug residue avoidance.
- One Health is a major area at WCVM with a focus on antimicrobial resistance and infectious disease. This focus is enhanced by the multi-disciplinary nature of the U of S campus.
- WCVM led the development of of VIDO-InterVac, the U of S Toxicology Centre and the Canadian Wildlife Health Cooperative.
• The WCVM is committed to equity and social justice. Examples include the service learning program that works in cooperation with First Nations communities, research that addresses Indigenous issues and the college’s Education Equity program for admissions. It is also expanding its partnerships worldwide in Australia, Brazil, Germany, India and Uganda.

A measure of the success of our teaching program is in our teaching honours. In addition to four annual WCVM teaching awards, we have had a faculty member receive one of the annual U of S Provost’s teaching awards for the last four years and WCVM faculty are typically nominated for University Students’ Union teaching awards. In the last year, we also had a faculty member receive the prestigious University Master Teacher Award.

11.4 Use of outcomes findings to improve the educational program

The college annually reviews all of the outcomes assessments, working to identify outliers and collaborative solutions that result in improvement to the curriculum and student learning. Specific interventions that have already been described have resulted in positive change in the areas of dentistry, medical imaging, oncology, nutrition and financial literacy. We are making small changes all the time, and the following three examples indicate more significant curricular changes.

Clinical skills: Review of our outcomes surveys indicated a desire for more hands-on training. We initially addressed this point through the implementation of our four-year surgical skills program that was developed by the small animal surgeons. Surgical skills are incrementally built over four years. We have now developed a comprehensive, competency-based assessment in Years 1 to 3 — an initiative that was facilitated through the development of the BJ Hughes Centre for Clinical Learning. While it is too soon to measure the impact of these changes, the results of our most recent focus groups have been encouraging.

Student experience: Multiple studies have identified the significance of stress and mental health in veterinary careers. Based on our monthly interactions with the Student Liaison Committee and our end-of-year student focus groups, we try to continuously implement changes to improve the student experience at WCVM and to model good life skills. Examples of these enhancements include the following:

• ensuring that Wednesday afternoons remain free without exception
• scheduling all exams for Monday and Thursday at 8:30 a.m.
• developing the Veterinary Social Work Program
• developing and refining the Accommodation Planning Committees
• developing a safe student learning commons
• developing mental health first aid (MHFA) training for students, faculty and staff
• developing a mindfulness elective
• restricting student work hours on final-year rotations
• developing formal training in mentorship and incorporating these skills into all years of curriculum

Small animal medicine: Recent modifications to this clinical rotation is one example of how the college has used student feedback to improve the overall learning experience. During this busy rotation, students are part of the receiving section of the teaching hospital and provide service to most of the small animal referral, first-opinion and emergency cases. While WCVM graduates report that this four-week rotation does a very good job of preparing them for private practice, their feedback identified that the rotation’s high level of after-hours emergency workload was affecting the quality of their learning experience.

Based on these responses, we instigated a program to cap the number of hours that students work per week. We continue to adapt the rotation and now have a redesign (beginning in the fall of 2017) that separates the three sub-services (referral, first-opinion, and emergency services) and has students rotating among them with scheduled time off. These changes should result in clearly defining the diagnosis and treatment of critical and emergency cases, and we will closely follow the outcomes from the changes this academic year. In addition, we have created a much more objective assessment process for the rotation with a greater opportunity for students to receive timely and formative feedback that allows them to improve their skills during the rotation.
Appendix 1
Organization
1.3 Table A, University of Saskatchewan administrators (July 2017)¹

Chancellor .............................................. Roy Romanow
President .................................................. Peter Stoicheff

Vice-Presidents

Provost and Vice-President, Academic .............. Tony Vannelli
Research ...................................................... Karen Chad
Finance and Resources .................................. Greg Fowler
University Relations .................................... Debra Pozega-Osburn

University Secretary ..................................... Beth Bilson

Associate Vice-Presidents

Technology .................................................... Shari Baraniuk, AVP Technology and Chief Information Officer
Research (Acting) ........................................... Kevin Schneider
People and Resources ..................................... Cheryl Carver
Services ......................................................... Wade Epp
Finance and Resources ................................... Janelle Hutchinson, Chief Strategist
Health Research (Interim) ................................. Darcy Marciniuk
Facilities Management ................................... Brad Steeves, Operations
Communications .......................................... Vacant
Alumni .......................................................... Vacant
Development ................................................ Danielle Dunbar

Vice-Provosts

Faculty Relations ........................................... Jim Germida
Teaching and Learning ..................................... Patti McDougall
Indigenous Engagement .................................. Jacqueline Ottmann

Associate Provost

Institutional Planning and Assessment (Interim) ...... John Rigby

¹ As of July 2017, the U of S is in the process of making changes to its senior administration structure. An updated list of U of S administrators will be available during the site visit.
Appendix 1  |  University Structure

1.3 Figure 1, University Structure
1.4 Table B, WCVM Administrators

Dean
D.A. Freeman, BS, DVM, MS, PhD, Diplomate (ACT)
Oversees and directs all aspects of the WCVM and VMC

Associate Dean (Academic)
C. Clark, VetMB, PhD, Diplomate (ACVIM)
Responsible for all academic-related programs (Years 1 to 3), admissions and student services

Associate Dean (Research and Graduate Studies)
E. Snead, BS, DVM, MS, Diplomate (ACVIM)
Responsible for all research-related programs and graduate studies.

Associate Dean (Clinical Programs)
S. Manning, DVM, MSc, Diplomate (ACT)
Responsible for the Year 4 academic program and the VMC

Chief Operations and Finance Officer
R. Hildebrandt, BComm, BA, Cert. HCA
Responsible for building, operations and overall resources

Directors

Development
J. Molloy, BA, CFRE
Responsible for development and alumni activities

Communications
M. MacDonald, BA (Eng.) BA (Journ.)
Responsible for communications and media relations

Department Heads

Large Animal Clinical Sciences
D. Wilson, DVM, Diplomate (ACVS)
Responsible for all activities of department

Small Animal Clinical Sciences
C. Shmon, DVM, DVSc, Diplomate (ACVS)
Responsible for all activities of department

Veterinary Biomedical Sciences
G. Muir, DVM, PhD
Responsible for all activities of department

Veterinary Microbiology
J. Hill, BSc, PhD
Responsible for all activities of department

Veterinary Pathology
S. Gomis, BVetSc, MVetSc, PhD, Diplomate (ACVP)
Responsible for all activities of department
Appendix 1  |  University Structure

1.4 Figure 2, WCVM organizational chart

Department Heads
- Large Animal Clinical Sciences – D. Wilson
- Small Animal Clinical Sciences – C. Shmon
- Veterinary Biomedical Sciences – G. Muir
- Veterinary Microbiology – J. Hill
- Veterinary Pathology – S. Gomis

WCVM Social Worker
- E. Watson

Chief Operations and Finance Officer
- R. Hildebrandt
- Financial Services (4.5)
- Information Technology (5)

Associate Dean (Academic)
- C. Clark
- Admissions (2)
- Student Services (2)
- Continuing Education (1)

Associate Dean (Research and Graduate Studies)
- E. Snead
- Animal Care Unit (10)
- BJ Hughes Centre for Clinical Learning (1)

Associate Dean (Clinical Programs)
- S. Manning
- Goodale Research and Teaching Farm (5)
- Research Facilitator (1)

Advancement Development
- J. Molloy
- Communications
- M. MacDonald

Executive Assistant
- D. Hunt

HR and Administration Officer
- C. Holstein

Associate Dean (Clinical Programs)
- S. Manning

Advisor
- M. MacDonald

Dean
- D.A. Freeman
### 1.5 Table C, WCVM committee structure

<table>
<thead>
<tr>
<th>Faculty Committees that report directly or provide information to the WCVM Faculty Committee</th>
<th>Advisory Committees that report or advise directly to the WCVM Dean</th>
<th>Administrative Committees that report directly to the WCVM Dean</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Year Teachers and Examiners (four separate committees; one per program year)</td>
<td>• Dean's Group</td>
<td>• Dean's Group</td>
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<tr>
<td>• Admissions</td>
<td>• Executive</td>
<td>• Executive</td>
</tr>
<tr>
<td>• Veterinary Technology Program</td>
<td>• Faculty</td>
<td>• WCVM Student Liaison</td>
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<td>• Awards</td>
<td>• Indigenous Engagement</td>
<td>• Veterinary Medical Centre Oversight</td>
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<td>• Companion Animal Health Fund Management</td>
<td>• Operations</td>
<td>• WCVM/PDS Strategic Oversight</td>
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<td>• Continuing Education</td>
<td>• Simulation</td>
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<td>• Curriculum</td>
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<td>• Goodale Research and Teaching Farm</td>
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<td>• Graduate Education</td>
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<tr>
<td>• Human Resources Development</td>
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<tr>
<td>• Lecture Co-ordinating</td>
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<td>• Library</td>
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<tr>
<td>• Townsend Equine Health Research Fund Management</td>
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<tr>
<td>• Wildlife Health Fund</td>
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</table>

**Other**

- Local Safety

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* Members are elected by faculty through secret ballot
3.1 Figure 1, U of S map
3.1 Figure 2, WCVM area maps

First Floor
See the directory on page 61.

Indicates Elevator
Second Floor

See the directory on page 61.
### Directory

#### First Floor

<table>
<thead>
<tr>
<th>Room</th>
<th>Description</th>
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<tbody>
<tr>
<td>1106.1</td>
<td>General WCVM Receiving and Loading Dock</td>
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<tr>
<td>1109.1</td>
<td>AV Services</td>
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<tr>
<td>1259</td>
<td>Molecular Microbiology Research Laboratory</td>
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<td>1301</td>
<td>Veterinary Biomedical Sciences</td>
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<tr>
<td>1622</td>
<td>Veterinary Pathology</td>
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#### Veterinary Medical Centre

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<tbody>
<tr>
<td>1401</td>
<td>Large Animal Clinic Reception</td>
</tr>
<tr>
<td>1420</td>
<td>Administration</td>
</tr>
<tr>
<td>1501</td>
<td>Small Animal Clinic Reception</td>
</tr>
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<td>1525</td>
<td>Pharmacy</td>
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#### Prairie Diagnostic Services Inc.

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<td>1318</td>
<td>Endocrinology</td>
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<td>1582</td>
<td>Clinical Pathology</td>
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<td>1690</td>
<td>PDS Multi-use Lab</td>
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<td>1701.1</td>
<td>Pathology Demonstration</td>
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<td>1710</td>
<td>Necropsy</td>
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<td>1724</td>
<td>Diagnostic Sample Receiving</td>
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<td>Administrative Office</td>
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#### Second Floor

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<td>2259</td>
<td>Westgen Research Laboratory</td>
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<td>2401</td>
<td>Large Animal Clinical Sciences</td>
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<td>2520/2524</td>
<td>Computing Services</td>
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<td>2529</td>
<td>Small Animal Clinical Sciences</td>
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<td>2538</td>
<td>Video Conference</td>
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<td>2601</td>
<td>Veterinary Microbiology</td>
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<tr>
<td>2644</td>
<td>Glassware Media Preparation</td>
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<td>2683</td>
<td>Cooperative Wildlife Health Centre (CWHC)</td>
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#### Third Floor

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<td>3101</td>
<td>General Office</td>
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<td>3103.1</td>
<td>Dean</td>
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<td>3104</td>
<td>Dean’s Conference Room</td>
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<tr>
<td>3105</td>
<td>Alberta Room</td>
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<tr>
<td>3111</td>
<td>Library</td>
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#### Fourth Floor

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<th>Description</th>
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<td>4101/112</td>
<td>Finance and Operations</td>
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<td>Research Office</td>
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<td>4104.3</td>
<td>Admissions</td>
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<td>4108/4109</td>
<td>Alumni &amp; Development</td>
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<td>Vet Continuing Education</td>
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<td>Associate Dean (Academic)</td>
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Appendix 4
Clinical Resources
4.1  **Figure 1, Trends in VMC in-clinic caseload over the past five years**

![Graph showing trends in VMC in-clinic caseload over the past five years for different animal categories.](image-url)
### 4.1 Table A, WCVM VMC in-clinic caseload by species

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4.1 Table B, Ambulatory/field service program

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### 4.1 Table C, Herd/flock health program

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**Note:** We also have access to a large number of poultry flocks through the U of S poultry extension specialist. We access swine herds through two local swine practices that allow us to visit their clients. We work with practitioners in Alberta to access a large goat diary and a large intensive sheep flock. Our partnership with the B.C. Animal Health Centre and with AVC (University of Prince Edward Island) is used to gain access to aquaculture operations.
### Table F, Caseload by clinical service specialty division

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6.1 **Table B, Interns, residents and graduate students**

View Table B on the following page.

6.1 **Table C, DVM students per year for the last five years**

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*In accordance to Canadian law, the WCVM can not identify students from minority backgrounds other than those who self-identify as being of Indigenous ancestry

6.1 **Table D, Number enrolled in other educational programs**

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### 6.1 Table B, Interns, residents and graduate students

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WCVM Accreditation Self-Study Report 2017

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### 7.4 Table A, Admission data

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<td>2016</td>
<td></td>
<td>British Columbia</td>
<td>116</td>
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<td></td>
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<td>Alberta</td>
<td>157</td>
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<td>27</td>
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<tr>
<td></td>
<td></td>
<td>Saskatchewan</td>
<td>94</td>
<td>20</td>
<td>21</td>
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<td></td>
<td></td>
<td>Manitoba</td>
<td>66</td>
<td>15</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Education equity</td>
<td>21</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>460</td>
<td>78</td>
<td>87</td>
</tr>
</tbody>
</table>

<sup>1</sup> There were no non-residents or contract students.

<sup>2</sup> Other: Students from northern territories and students with direct links to the military or RCMP.

<sup>3</sup> Other applicant not eligible. Seat moved to EE (2013)
## 8.1 Table A, Loss and recruitment of faculty (both tenure track and clinical track)

<table>
<thead>
<tr>
<th>Department</th>
<th>Number Lost</th>
<th>Discipline / Specialty</th>
<th>Number Recruited</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACS</td>
<td>0</td>
<td>Dentistry</td>
<td>1</td>
<td>2011 / 2012</td>
</tr>
<tr>
<td>SACS</td>
<td>0</td>
<td>Imaging</td>
<td>1</td>
<td>2011 / 2012</td>
</tr>
<tr>
<td>VBMS</td>
<td>0</td>
<td>Fish behaviour</td>
<td>1</td>
<td>2011 / 2012</td>
</tr>
<tr>
<td>VBMS</td>
<td>0</td>
<td>Food safety</td>
<td>1</td>
<td>2011 / 2012</td>
</tr>
<tr>
<td>VBMS</td>
<td>1</td>
<td>Toxicology</td>
<td>0</td>
<td>2011 / 2012</td>
</tr>
<tr>
<td>Pathology</td>
<td>1</td>
<td>Anatomic pathology</td>
<td>2</td>
<td>2011 / 2012</td>
</tr>
<tr>
<td>Microbiology</td>
<td>0</td>
<td>Immunology / virology</td>
<td>1</td>
<td>2011 / 2012</td>
</tr>
<tr>
<td>SACS</td>
<td>0</td>
<td>Surgery</td>
<td>1</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>SACS</td>
<td>1</td>
<td>Dentistry</td>
<td>1</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>SACS</td>
<td>1</td>
<td>Emergency and critical care</td>
<td>1</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>SACS</td>
<td>1</td>
<td>Imaging</td>
<td>0</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>LACS</td>
<td>0</td>
<td>Biostatistics</td>
<td>1</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>LACS</td>
<td>0</td>
<td>Large animal internal medicine</td>
<td>1</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>LACS</td>
<td>2</td>
<td>Theriogenology</td>
<td>0</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>VBMS</td>
<td>0</td>
<td>Behaviour</td>
<td>1</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>VBMS</td>
<td>0</td>
<td>Endocrinology</td>
<td>1</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>VBMS</td>
<td>0</td>
<td>Reproduction</td>
<td>1</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>Microbiology</td>
<td>0</td>
<td>Antimicrobial resistance</td>
<td>1</td>
<td>2012 / 2013</td>
</tr>
<tr>
<td>SACS</td>
<td>2</td>
<td>Internal medicine</td>
<td>2</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>SACS</td>
<td>2</td>
<td>Medical imaging</td>
<td>1</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>SACS</td>
<td>1</td>
<td>Surgery</td>
<td>0</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>SACS</td>
<td>1</td>
<td>Emergency and critical care</td>
<td>0</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>SACS</td>
<td>1</td>
<td>Nutrition</td>
<td>0</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>LACS</td>
<td>0</td>
<td>Equine field service</td>
<td>1</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>LACS</td>
<td>0</td>
<td>Theriogenology</td>
<td>1</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>LACS</td>
<td>1</td>
<td>Bovine field service</td>
<td>0</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>VBMS</td>
<td>1</td>
<td>Physiology</td>
<td>0</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>Microbiology</td>
<td>1</td>
<td>Parasitology</td>
<td>0</td>
<td>2013 / 2014</td>
</tr>
<tr>
<td>LACS</td>
<td>0</td>
<td>Food animal</td>
<td>2</td>
<td>2014 / 2015</td>
</tr>
<tr>
<td>LACS</td>
<td>2</td>
<td>Internal medicine</td>
<td>0</td>
<td>2014 / 2015</td>
</tr>
<tr>
<td>SACS</td>
<td>0</td>
<td>Surgery</td>
<td>1</td>
<td>2014 / 2015</td>
</tr>
<tr>
<td>SACS</td>
<td>1</td>
<td>Medical imaging</td>
<td>0</td>
<td>2014 / 2015</td>
</tr>
<tr>
<td>Microbiology</td>
<td>0</td>
<td>CWHC</td>
<td>1</td>
<td>2014 / 2015</td>
</tr>
<tr>
<td>Pathology</td>
<td>1</td>
<td>CWHC</td>
<td>0</td>
<td>2014 / 2015</td>
</tr>
<tr>
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<td>0</td>
<td>Exotics</td>
<td>1</td>
<td>2015 / 2016</td>
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<tr>
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<td>1</td>
<td>Internal medicine</td>
<td>0</td>
<td>2015 / 2016</td>
</tr>
<tr>
<td>SACS</td>
<td>0</td>
<td>Nutrition</td>
<td>1</td>
<td>2015 / 2016</td>
</tr>
<tr>
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<td>0</td>
<td>Internal medicine</td>
<td>1</td>
<td>2015 / 2016</td>
</tr>
<tr>
<td>LACS</td>
<td>0</td>
<td>Swine behaviour</td>
<td>1</td>
<td>2015 / 2016</td>
</tr>
<tr>
<td>LACS</td>
<td>1</td>
<td>Theriogenology</td>
<td>0</td>
<td>2015 / 2016</td>
</tr>
<tr>
<td>Microbiology</td>
<td>1</td>
<td>Bacteriology</td>
<td>0</td>
<td>2015 / 2016</td>
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</table>
### Table B, Staff support for teaching and research

<table>
<thead>
<tr>
<th>Area</th>
<th>FTE Clerical</th>
<th>FTE Technical</th>
<th>FTE Admin.</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical teaching</td>
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<td>68.00</td>
<td>13.25</td>
<td>22.00</td>
</tr>
<tr>
<td>Non-clinical teaching</td>
<td>4.00</td>
<td>5.00</td>
<td>1.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Research</td>
<td>1.00</td>
<td>21.00</td>
<td>2.50</td>
<td>0.00</td>
</tr>
<tr>
<td>Dean's Office</td>
<td>6.50</td>
<td>2.00</td>
<td>11.25</td>
<td>1.00</td>
</tr>
<tr>
<td>Total</td>
<td>40.50</td>
<td>96.00</td>
<td>28.00</td>
<td>26.00</td>
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</tbody>
</table>

### Table C, Non-veterinarians

<table>
<thead>
<tr>
<th>Title</th>
<th>BSc</th>
<th>MSc/ MVetSc/ DVSc</th>
<th>PhD</th>
<th>Board-certified</th>
<th>Board-certified &amp; MS</th>
<th>Board-certified &amp; PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Professor</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Associate professor</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Assistant professor</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Instructor</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>Lecturer</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Part-time faculty (&lt;75%)</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
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<td>0</td>
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</table>
## 8.2 Table D, Veterinarians

<table>
<thead>
<tr>
<th>Title</th>
<th>DVM or Equivalent</th>
<th>BSc</th>
<th>MS/ MVetSc/ DVSc</th>
<th>PhD</th>
<th>Board-certified</th>
<th>Board-certified &amp; MS</th>
<th>Board-certified &amp; PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
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<td>1</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Professor</td>
<td>25</td>
<td>3</td>
<td>14</td>
<td>13</td>
<td>12</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Associate professor</td>
<td>14</td>
<td>10</td>
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<td>9</td>
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<td>9</td>
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</tr>
<tr>
<td>Assistant professor</td>
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<td>9</td>
<td>6</td>
<td>10</td>
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<td>3</td>
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<tr>
<td>Instructor</td>
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<td>0</td>
<td>0</td>
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<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>Lecturer</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Part-time faculty (&lt;75%)</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>0</td>
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</table>
### 9.1 Table A, Mapping assessment rubric to curricular core courses in DVM program

<table>
<thead>
<tr>
<th>Standard 9 evaluation rubric</th>
<th>Year in the program when the course is taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum content provides current concepts and principles that underlie animal health and disease</td>
<td>1: Every course</td>
</tr>
<tr>
<td>Curriculum covers mechanisms from the molecular and cellular level to organismal and population manifestations</td>
<td>VBMS 220, VBMS 231</td>
</tr>
<tr>
<td>Evidence of students’ understanding of normal function, homeostasis, pathophysiology, mechanisms of health/disease, and the natural history and manifestations of important domestic animal diseases is adequate</td>
<td>VBMS 220, VBMS 231, VBMS 224, VTMC 238</td>
</tr>
<tr>
<td>Evidence of students’ understanding of normal function, homeostasis, pathophysiology, mechanisms of health/disease, and the natural history and manifestations of important foreign animal diseases is adequate</td>
<td>VBMS 220, VBMS 231, VBMS 224, VTMC 238</td>
</tr>
<tr>
<td>Curricular delivery is rooted in scientific, discipline-based instruction</td>
<td>Every course</td>
</tr>
<tr>
<td>Evidence of high quality and effective instruction in theory and practice of medicine and surgery applicable to a broad range of species is adequate</td>
<td>VBMS 208, VSCA 205</td>
</tr>
<tr>
<td>Instruction includes principles and hands-on experience in physical and laboratory diagnostic methods and interpretation (including diagnostic imaging, diagnostic pathology, and necropsy)</td>
<td>VSAC 362, VTPA 346, VTPA 353</td>
</tr>
<tr>
<td>Instruction includes principles and hands-on experience in disease prevention</td>
<td>Field Service, Wellness</td>
</tr>
<tr>
<td>Instruction includes principles and hands-on experience in biosecurity</td>
<td>VLAC 320</td>
</tr>
<tr>
<td><strong>Standard 9 evaluation rubric</strong></td>
<td><strong>Year in the program when the course is taught</strong></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Instruction includes principles and hands-on experience in therapeutic intervention (including surgery)</td>
<td>1</td>
</tr>
<tr>
<td>• VSAC 205</td>
<td>• VSAC 357</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction includes patient management and care (including intensive care, emergency medicine and isolation procedures)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction includes principles and hands-on experience involving clinical diseases of individual animals and populations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction emphasizes problem-solving that results in making and applying medical judgments</td>
<td>• VBMS 208</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction includes principles of epidemiology, zoonoses, food safety, the interrelationship of animals and the environment, and the contribution of the veterinarian to the overall public and professional healthcare teams</td>
<td>• VTMC 438</td>
</tr>
<tr>
<td>Instruction allows for opportunities for students to learn how to acquire information from clients (e.g. history) and about patients (e.g. medical records).</td>
<td></td>
</tr>
<tr>
<td>Instruction allows for opportunities to obtain, store and retrieve medical records information, and to communicate effectively with clients and colleagues.</td>
<td></td>
</tr>
<tr>
<td>Standard 9 evaluation rubric</td>
<td>Year in the program when the course is taught</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
</tbody>
</table>
| Opportunities are available throughout the curriculum for students to gain an understanding of professional ethics, influences of different cultures on the delivery of veterinary medical services, delivery of professional services to the public, personal and business finance and management skills | 1 • TIPS  
• VINT 210  
• VINT 211                                                                 |
|                                                                                          | 2                                                                 |
|                                                                                          | 3 • VINT 411                                                                 |
|                                                                                          | 4 • Service learning                                                                 |
| Opportunities are available throughout the curriculum for students to gain an understanding of the breadth of veterinary medicine, career opportunities and other information about the profession. | 1 • VINT 210                                                                 |
|                                                                                          | 2                                                                 |
|                                                                                          | 3                                                                 |
|                                                                                          | 4                                                                 |
| Curriculum provides for knowledge, skills, values, attitudes, aptitudes and behaviors necessary to address responsibly the health and well-being of animals in the context of ever-changing societal expectations | 1 • TIPS  
• VINT 211                                                                 |
|                                                                                          | 2                                                                 |
|                                                                                          | 3 • VINT 411  
• VINT 415                                                                 |
|                                                                                          | 4 • All clinical 580 rotations                                                                 |
Appendix 10  |  Research Programs

10.1.a Table D, Presentation of original research in scientific meetings

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral abstract presentations</td>
<td>139</td>
<td>112</td>
<td>134</td>
<td>151</td>
<td>536</td>
</tr>
<tr>
<td>Poster abstract presentations</td>
<td>117</td>
<td>110</td>
<td>127</td>
<td>115</td>
<td>469</td>
</tr>
<tr>
<td>CE invited lectures</td>
<td>95</td>
<td>137</td>
<td>89</td>
<td>76</td>
<td>397</td>
</tr>
<tr>
<td>Round tables, expert panels and workshops</td>
<td>6</td>
<td>11</td>
<td>8</td>
<td>16</td>
<td>41</td>
</tr>
<tr>
<td>Symposium</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Faculty research honours and awards¹²</td>
<td>9</td>
<td>18</td>
<td>17</td>
<td>9</td>
<td>53</td>
</tr>
</tbody>
</table>

¹. At the time of writing/printing of this document, no data was available for 2016–2017
². Does not include any awards for posters or presentations by graduate or undergraduate students

10.1.a Examples of research awards won by WCVM faculty (2012–2017)

- **VBMS:** John Giesy, recipient of the SCOPE-Zhongyu Environmental Sciences Life Achievements Awards (2012). Dr. Giesy was also elected Fellow of the Society of Environmental Toxicology and Chemistry (2014)
- **LACS:** Reuben Mapleton, Lyall Petrie and Albert Barth – Life Membership in Western Canadian Bovine Practitioners (2012)
- **VBMS:** Gregg Adams, Theriogenologist of the Year, American College of Theriogenologists (2013), and IETS Mentor of the Year Award (2015)
- **VBMS:** Suraj Unniappan, Pickford Medal in Comparative Endocrinology (2013), and Yoshitaka Nagahama Lecture-ship and Award in Fish Endocrinology from the International Society of Fish Endocrinology (2015)
- **Microbiology:** Emily Jenkins, Genome Alberta Scholarship (2013)
- **Pathology:** Susan Detmer, Boehringer Ingelheim Vetmedica PRRS Research Award (2014)
- **VBMS:** Jaswant Singh, Nil's Lagerlof Memorial Award from the Indian Society for Animal Reproduction (2015)
- **VBMS:** Maud Ferrari, University of Saskatchewan New Research Award (2017)

10.1.a Table E, Faculty research activity

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisory board member</td>
<td>9</td>
<td>11</td>
<td>17</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Member of board of directors</td>
<td>8</td>
<td>8</td>
<td>12</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Member of editorial review board</td>
<td>23</td>
<td>20</td>
<td>23</td>
<td>21</td>
<td></td>
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<tr>
<td>Committee or task force: member</td>
<td>79</td>
<td>72</td>
<td>71</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Committee or task force: chair</td>
<td>21</td>
<td>25</td>
<td>28</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Professional consultations</td>
<td>25</td>
<td>31</td>
<td>29</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Reviewer of grant proposals</td>
<td>26</td>
<td>34</td>
<td>31</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Technical reports written</td>
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<td>16</td>
<td>13</td>
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</tr>
</tbody>
</table>

¹. At the time of writing/printing of this document, no data was available for 2016–2017.
10.2 Courses and curriculum that include research topics

The following courses have a very strong research component. For example, they include topics such as study design and statistical analysis and interpretation, or the courses include completion of a research project.

**Preclinical**

**Disease ecology and epidemiology / VTMC 238:** Students are taught basic approaches for describing and quantifying diseases in population along with topics such as causation. Over several lectures students learn about testing causal hypotheses for infectious disease including considerations such as study design and statistical analysis.

**Evidence-based medicine / VLAC 320:** Research skills are taught in the context of applying evidence-based medicine to veterinary practice. Students develop skills in critical appraisal of scientific literature with an emphasis on clinical trials, evaluation of diagnostic tests, and investigation and control of disease outbreaks.

**Selected topics / VINT 400 (06):** An elective offered under special circumstances to allow in-depth studies of topics not covered in other courses and which may include a research project.

**Research selected topics / VINT 438 (12):** An elective course specifically designed to allow DVM students to develop and complete a research project during their program.

**Introduction to epidemiology for regulatory medicine and public health / VLAC 455:** The structure of this course is dependent on student interest but includes the study of specialized research tools that can be used to address problems in regulatory medicine in public health. Topics include disease mapping, risk analysis, infectious disease modelling, research synthesis methods and decision analysis.

In addition, nearly three dozen pre-clinical and clinical courses have been identified in our curriculum map as specifically addressing and articulating the role of research in veterinary medicine as it applies to each of the areas covered in the courses. Examples of course topics include biochemistry, neuroscience, embryology, clinical pathology, regulatory pharmacology, surgery, medicine and production medicine.

Some clinical rotations also include topics such as study design and statistical analysis including Ecosystem Health, Saskatchewan Provincial Government and Summer — Beef Cow Calf Production. As well, some courses emphasize the role of research in the practice of veterinary medicine by specifically incorporating the discussion and critical evaluation of published scientific literature in order to develop the necessary skills for critically reviewing scientific literature in the practice of medicine.
10.2.b Research activities (examples)

**DLT Smith Lecture Series**

**2012–2013 (6):**
- Dr. James Belknap, Ohio State University  
  Sept. 25, 2012
- Dr. Trevor Ames, University of Minnesota  
  Oct. 17, 2012
- Dr. Kathryn Huyvaert, Colorado State University  
  Nov. 6, 2012
- Dr. Etienne Cote, University of PEI  
  Nov. 20, 2012
- Dr. Scott Weese, University of Guelph  
  Dec. 4, 2012
- Dr. Jules Minke, France  
  Mar. 12, 2013

**2013–2014 (8):**
- Dr. Alfonso Lopez, Atlantic Veterinary College  
  Oct. 3, 2013
- Dr. Frederik Jan Derksen, Michigan State University  
  Oct. 8, 2013
- Dr. Karen Young, University of Wisconsin-Madison  
  Oct. 10, 2013
- Dr. Mark Stidworthy, International Zoo Veterinary Group  
  Nov. 26, 2013
- Dr. Marilyn Dunn, University of Montreal  
  Jan. 21, 2014
- Dr. Andria Jones Bitton, University of Guelph  
  Feb. 4, 2014
- Dr. Nigel French, Massey University  
  Mar. 11, 2014
- Dr. Suzanne Millman, Iowa State University  
  Apr. 8, 2014

**2014–2015 (6):**
- Dr. David Vail, University of Wisconsin-Madison  
  Sept. 9, 2014
- Dr. Richard Dubielzig, University of Wisconsin-Madison  
  Sept. 23, 2014
- Dr. Gayle Johnson, University of Missouri  
  Oct. 2, 2014
- Dr. Terry Lake, Kamloops, B.C.  
  Oct. 24, 2014
- Dr. Jason Clay, World Wildlife Fund  
  Dec. 2, 2014
- Dr. Manon Simard, Makivik Corporation, Quebec  
  Feb. 4, 2015

**2015–2016 (5):**
- Dr. Stephen May, Royal Veterinary College  
  Aug. 27, 2015
- Dr. Karrie Rose, Australian Registry of Wildlife Health  
  Sept. 30, 2015
- Professor Shayan Sharif, University of Guelph  
  Nov. 5, 2015
- Dr. Sebastien Monette, Memorial Sloan-Kettering Cancer Ctr  
  Mar. 18, 2016
- Dr. Donald Thrall, North Carolina State University  
  Apr. 5, 2016

**2016–2017 (9):**
- Dr. William Eward, Duke University  
  Sept. 8, 2016
- Dr. John Cullen, North Carolina State University  
  Oct. 4, 2016
- Dr. Ian Tizard, Texas A&M University  
  Oct. 19, 2016
- Dr. Pietro Baruselli, Brazil  
  Oct. 24, 2016
- Dr. Marie-Odile Benoit-Biancamano, Saint-Hyacinthe, QC  
  Oct. 25, 2016
- Mr. Phil Arkow, Stratford, NJ  
  Nov. 2, 2016
10.3 Examples of summer student research (student authors in green)

**Research area: Reproduction physiology and medicine**

**Research area: Epidemiology, food safety and public health**

**Research area: Toxicology and aquatic ecology**

**Research area: Infectious diseases and vaccinology**

**Research area: Translational and comparative research**
**10.3.a Table A, Veterinary student involvement in research**

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¹ No CV data for 2016–17 year is available at the time of writing this report.
² Does not include any non-DVM undergraduate research students working with professors (another five to 15 students per year).
³ Data underestimates total number of publications since this information has not been regularly tracked.
### 10.3.b Table B, Faculty involvement in research

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1. Full- and part-time faculty only counted. Faculty in senior administration roles were counted in their respective departments.
2. Research faculty: faculty with ≥ 20 per cent time devoted to research activity.
3. Data for 2016-17 is not available at this time. An updated table will be available during the site visit.
10.3.c Table C, Research grants sponsored extramurally

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<td>1</td>
<td>750,000.00</td>
<td>1 825,000.00</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>21</td>
<td>3,786,192.16</td>
<td>27</td>
<td>1,859,006.85</td>
<td>69 3,270,757.94</td>
</tr>
</tbody>
</table>
Appendix 11
Outcomes Assessment
### 11.1.b Table A, NAVLE results

<table>
<thead>
<tr>
<th>Graduating year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students taking exam(s)</td>
<td>76</td>
<td>76</td>
<td>81</td>
<td>78</td>
<td>79</td>
</tr>
<tr>
<td>Students passing exam(s) first attempt (students passing the exam at graduation)</td>
<td>74 (76)</td>
<td>72 (75)(^2)</td>
<td>78 (81)</td>
<td>78 (78)(^3)</td>
<td>77 (78)(^4)</td>
</tr>
<tr>
<td>Average scores</td>
<td>516</td>
<td>512</td>
<td>509</td>
<td>512</td>
<td>559</td>
</tr>
</tbody>
</table>

1. 2017 data is based on preliminary (fall) report only as the full report was not available at the time of submission.
2. One student withdrew from the year and did not write the exam.
3. One student did not register for the exam.
4. One student registered for the exam but did not write; one student did not register and withdrew from the program.
11.1.c Figure 1, WCVM graduate exit survey

Insightrix administers this survey at the end of the students’ final year. Response rate: 81 per cent.

Executive summary

Importance and preparedness – clinical subjects

- The most important clinical subjects to graduates based on average ratings are Anesthesiology (4.6), Small Animal Medicine (4.6) and Medical Imaging (4.6). The least important are Exotics (2.7), and Equine Medicine and Surgery (2.7).
- Graduates feel most prepared for Clinical Pathology (4.2) and Ophthalmology (4.1) and least prepared for Critical Care (2.6).
- Compared to 2016, average ratings of preparedness increased the most in Theriogenology (+0.2) and Oncology (+0.2).

Importance and preparedness – career areas

- The most important areas to 2017 graduates based on average ratings continue to be Interpretation of Lab Results (4.7) and Small Animal Medicine and Surgery (4.5). Least important are Food Animal Production (3.0) and Equine Medicine and Surgery (2.6).
- Relative to 2016, graduates in 2017 feel more prepared for Food Animal Production (increased by +0.3 points) and Small Animal Medicine and Surgery (increased by +0.2 points).

Program perceptions and satisfaction

- Overall satisfaction (79 per cent rating four or five out of five) has held steady since 2016. Satisfaction among graduates is highest with the variety of electives available (4.1), and lowest with acquiring practice management skills (2.9).
- Graduates continue to like the overall experience they received (51 per cent) but would like to see changes that reflect more clinical training experiences (33 per cent).
- Similar to 2016 (17 per cent), roughly two in 10 (21 per cent) in 2017 plan to pursue graduate studies in future.
11.1.c Figure 2, Survey of WCVM alumni (two years after graduation)

*Survey question:* Please rate how well the college prepared you for starting your veterinary career?

![Survey of WCVM alumni chart](chart.png)
11.1.c Figure 3, Survey of WCVM alumni two years after graduation: 
student preparedness

Survey question: On a scale of 1 to 5 where 1 is “not at all prepared” and 5 is “very well prepared,” please rate how well the college prepared you in each of the following areas.
Appendix 11 | Outcomes Assessment

11.1.d Figure 4, Employer survey: satisfaction with new WCVM graduates (in animal care types)

Every two years, Insightrix administers this survey to employers who have employed WCVM graduates in the last four years. Total: 95 respondents.

Executive summary

Graduate/employee profile

- Overall, 93 per cent of hired graduates were working in clinical care upon starting at a new practice.
- The majority of graduates in 2016 were employed on a full-time basis when they were hired (98 per cent).
- Consistent since 2010, 59 per cent of graduates are currently working as employees at the practice where they were hired. Most commonly, 48 per cent of graduates are earning an annual salary between $70,000 and $80,000.
- On average, in 2016, graduates were spending about 49 per cent of their time working with dogs.

Satisfaction with performance

- Overall employer satisfaction with graduate performance has increased since 2014. Average satisfaction (5-point scale) increased from 3.98 to 4.14 in 2016.
- Regarding satisfaction in areas of study, Basic Sciences and Pharmacology receive the highest ratings while Nutrition receives the lowest.
- Satisfaction with animal care areas is highest for Food Animal Medicine and Food Safety. It is comparatively lowest for Equine Surgery.
- On average, job performance area satisfaction is highest for dealing with animal death and medical record recording skills. It is lowest for necropsy skills.
- Regarding professional skills, employers are most satisfied with a graduate’s client relationship skills and working effectively with others. It is comparatively lowest for developing and forecasting budgets.

Future recommendations and demand

- About one-third of employers (32 per cent) believe that WCVM needs to provide its graduates with more practical experience in order to improve performance.
- Further, three-quarters of employers believe it is difficult to hire qualified veterinarians due to geographic location of the business (50 per cent) and a lack of qualified candidates (43 per cent).
- Most commonly, 37 per cent of employers expect to hire one new veterinarian in the next two years. However, 28 per cent do not expect to hire any new vets.
**Survey question:** On a scale of 1 to 5 where 1 is “not at all satisfied” and 5 is “very satisfied,” please rate how satisfied you are with the proficiency or performance of new WCVM graduates you have hired since 2013 in each of the following types of animal care.
11.1.d Figure 5, Employer survey: overall satisfaction with performance of new WCVM graduates

Survey question: On a scale of 1 to 5 where 1 is “not at all satisfied” and 5 is “very satisfied,” please rate how satisfied you are overall with the proficiency or performance of new WCVM graduates you have hired since 2011.
### 11.2.a Table B, Attrition

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Attrition¹</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Reason for</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>attrition²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Academic</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>failure/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>additional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Personal</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>• Transfer³</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Absolute</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>attrition⁴</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Number</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>• Percentage</td>
<td>0</td>
<td>1.3</td>
<td>0</td>
<td>0</td>
<td>3.9</td>
</tr>
</tbody>
</table>

1. Absolute plus relative attrition
2. Relative attrition: encompasses students moving to another class or transferring to another professional veterinary program, plus number of students moving to a different (earlier class)
3. Students who transfer to another veterinary medicine professional program
4. Students who leave and never return

### 11.2.b Table C, Employment rates of WCVM graduates

<table>
<thead>
<tr>
<th>Graduating Class</th>
<th>2013 (2-year survey)</th>
<th>2014 (2-year survey)</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no.</td>
<td>76 (62)</td>
<td>76 (64)</td>
<td>76(45)</td>
<td>81 (70)</td>
<td>81 (69)</td>
</tr>
<tr>
<td>graduates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(number of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>respondents)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. employed in</td>
<td>51</td>
<td>47</td>
<td>45</td>
<td>33</td>
<td>58</td>
</tr>
<tr>
<td>field related to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>veterinary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of graduates</td>
<td>10</td>
<td>1</td>
<td>12</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>in advanced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>clinical training (internships)</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>No. of graduates</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>in advanced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>academic training (residencies/masters/PhD)</td>
<td>98%</td>
<td>100%</td>
<td>94%</td>
<td>96%¹</td>
<td>99%</td>
</tr>
<tr>
<td>Employment rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>based on number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of respondents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. One graduate could not find a job. One student submitted “Other reasons” as a response.

### 11.2.d Table D, Veterinary Internship and Residency Matching Program (VIRMP): WCVM graduate success

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internship</td>
<td>14</td>
<td>12</td>
<td>7</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>applicants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matched</td>
<td>9</td>
<td>9</td>
<td>5</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>internships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Success rate (%)</td>
<td>64</td>
<td>75</td>
<td>71</td>
<td>91</td>
<td>100</td>
</tr>
<tr>
<td>Residency</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>applicants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matched residency</td>
<td>5</td>
<td>3</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Success rate (%)</td>
<td>50</td>
<td>42</td>
<td>80</td>
<td>66</td>
<td>80</td>
</tr>
</tbody>
</table>
11.2.d Figure 6, Benchmarking of NAVLE performance (total)
Date of site visit: October 1-5, 2017

Site Team:
- Dr. Peter Conlon, Chair, COE
- Dr. Christina Tran, COE
- Dr. David Scammell, Canadian VMA
- Dr. Jack Cameron, Canadian VMA
- Dr. Nicole Gallant, Canadian VMA

Observer:
- Dr. Caroline Zeiss, COE

COE Staff:
- Dr. Karen Martens Brandt

PRINCIPAL UNIVERSITY ADMINISTRATIVE OFFICERS:

President:
- Dr. Peter Stoicheff

Provost, Vice President Academic:
- Dr. Tony Vanelli

Vice President Finance and Resources:
- Dr. Greg Fowler

Vice President University Relations:
- Dr. Debra Pozega Osburn

Vice President Research:
- Dr. Karen Chad

Dean, Western WCVM:
- Dr. Douglas Freeman
Standard 1, Organization

1.1 The college must develop and follow its mission statement.

Intent: A well-developed mission statement is helpful in communicating the values and purpose of the college, as long as it is followed and reflected in the actual practices of the college.

What to look for: Evidence of overall teaching, research, and service commitment; commitment to professional DVM program or equivalent; commitment to provide instruction and clinical opportunities for students in a wide variety of domestic species, including food animal, equine, and companion animal; commitment to excellence in program delivery.

The college has a well-developed mission statement that is followed.

1.2-1.3 An accredited college of veterinary medicine must be a part of an institution of higher learning accredited by an organization recognized for that purpose by its country’s government.

Intent: The COE is recognized by the US Department of Education and Council on Higher Education Accreditation as a programmatic accreditor and does not evaluate independent veterinary colleges. Institutional accreditation in the United States, provincial recognition in Canada, and governmental recognition in other countries provides a measure of institutional quality assurance and accountability beyond the college level.

What to look for: The institutional accrediting body has been identified; the accreditation status of the university is provided; deficiencies noted by the accreditor that may impact compliance with the Standards of Accreditation are being addressed adequately.

The college is part of an institution accredited or federally recognized for this purpose.
1.4 A college may be accredited only when it is a major academic administrative division of the parent institution and is afforded the same recognition, status, and autonomy as other professional colleges in that institution.

Intent: Effective veterinary colleges are complex, multidisciplinary, and resource intensive. Access to senior institutional leaders is essential to ensure ongoing needs are fully appreciated and adequate resources are made available to sustain the teaching, research, and service mission of the college.

What to look for: A flow chart indicating the position of the college of veterinary medicine in the university structure; lines of authority and responsibility are shown; names and titles of principal administrative officers are provided to the level of college.

The college is a major academic administrative division of the university afforded the same recognition, status, and autonomy as other professional colleges. ☒ ☐ ☐

1.5-1.6 The chief executive officer or dean must be a veterinarian, and the officer(s) responsible for the professional, ethical, and academic affairs of the veterinary medical teaching hospital must also be (a) veterinarian(s).

Intent: Veterinary medicine is a unique, multidisciplinary health profession. Decisions affecting the education of veterinarians are best understood and administered by veterinarians.

What to look for: A flow chart of the organizational design of the college, listing names, titles (deans or chief executive officer, associate/assistant deans, directors, department heads, etc.), academic credentials, and assignments of the college administrators. Verify that the dean and chief academic officer of the hospital (or the individual with senior leadership responsibility for the clinical programs) are veterinarians.

The dean and academic head of the veterinary teaching hospital are veterinarians. ☒ ☐ ☐
1.7-1.8 *There must be sufficient administrative staff to adequately manage the affairs of the college as appropriate to the enrollment and operation.*

**Intent:** Administrative staff (including administrators) play an essential role in all phases of college operation. The administrative staff and structure must be adequate to support students and faculty and fulfill the teaching, research and service mission of the college.

What to look for: Description of the role of administrators (deans, associate/assistant deans, directors, department heads, including academic credentials), faculty, support staff, and students in the governance of the college; listing of major college committees including committee charge, appointment authority, terms of service (term length/rotation), and current members.

College committee structure, representation, and function are adequate to meet the operational needs of the college effectively.

Sufficient administrative staff is present to support the operational needs of the college.

Does the college plan to change its current organization?

**Intent:** Accreditation site visits represent a snapshot of current conditions. However, program sustainability can be positively or negatively impacted by planned organizational changes.

What to look for: A rationale and summary of planned organizational changes including timelines and how the planned changes are expected to improve the existing conditions or address anticipated future needs.

**Comments:**

Based on comments from various groups with which the site team met, the creation of the Associate Dean (Clinical Programs) position and the restructuring of management within the hospital has been met with widespread support.

**Overall, can the college be said to be in compliance with Standard 1?**

<table>
<thead>
<tr>
<th>Y</th>
<th>MD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Standard 2, Finances

2.1 Finances must be adequate to sustain the educational programs and mission of the college.

Intent: Veterinary colleges must have adequate, sustainable financial resources to fulfill the teaching, research, and service mission.

What to look for: Documentation and data including a financial summary and analysis of actual revenues and expenses for the past five years; actual or projected revenues and expenses for current year; and actual or projected revenues and expenses for next year. Financial analyses must demonstrate adequate, sustainable financial resources to fulfill the teaching, research, and service mission.

Analysis of revenues and expenditures for the past five years demonstrate adequate, sustainable financial resources to fulfill the teaching, research, and service mission.

Financial resources are adequate and deployed efficiently and effectively to:

- Support all aspects of the mission, goals, and strategic plan
- Ensure stability in the delivery of the program
- Allow effective faculty, administrator, and staff recruitment, retention, remuneration, and development
- Maintain and improve physical facilities, equipment, and other educational and research resources
- Enable innovation in education, inter-professional activities, research and other scholarly activities, and practice
- Measure, record, analyze, document, and distribute assessment and evaluation activities
- Ensure an adequate quantity and quality of practice sites and preceptors are provided to support the curriculum, as needed.

Comments:
The college is currently in negotiations with the four western provinces regarding the Interprovincial Agreement (IPA). Near the end of the site visit the dean informed us that he had just been notified that the province of Alberta plans to leave the agreement beginning in 2019. The province will continue to fund their remaining students until their graduation.

Additional Reporting:
The college must include in its interim reports an update on the status of the IPA.
### 2.2 Colleges with non DVM undergraduate degree programs must clearly report finances (expenditures and revenues) specific to those programs separately from finances (expenditures and revenues) dedicated to all other educational programs.

**Intent:** It is important to evaluate the impact non DVM, undergraduate degree programs offered by the college have on the professional program.

**What to look for:** Clear reporting of the expenditures and revenues specific to non DVM, undergraduate degree programs offered by the college and impact on the DVM program.

Non DVM undergraduate degree programs offered by the college do not adversely affect resources available to deliver the professional program.

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>MD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☒</td>
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</tbody>
</table>

### 2.3 Clinical services, field services, and teaching hospitals must function as instructional resources. Instructional integrity of these resources takes priority over financial self-sufficiency of clinical services operations.

**Intent:** Efficient operation of clinical services is highly encouraged, but must not take precedence over the educational mission of the college.

**What to look for:** Evidence that adequate resources for instruction and clinical opportunities are provided for students in a wide variety of domestic species, including food animal, equine, and companion animal; commitment to excellence in program delivery.

Clinical services, field services, and teaching hospitals function as instructional resources.

Instructional integrity of these resources takes priority over financial self-sufficiency of clinical services operations (educational objectives take priority).

**Overall, can the college be said to be in compliance with Standard 2?**

<table>
<thead>
<tr>
<th>YES</th>
<th>MD</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>☒</td>
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<td></td>
</tr>
</tbody>
</table>
Standard 3, Physical Facilities and Equipment

3.1-3.7 All aspects of the physical facilities must provide an appropriate learning environment. Safety of personnel and animals must be a high priority. Classrooms, teaching laboratories, teaching hospitals, which may include but are not limited to ambulatory/field service vehicles, seminar rooms, and other teaching spaces shall be clean, maintained in good repair, and adequate in number, size, and equipment for the instructional purposes intended and the number of students enrolled.

Administrative and faculty offices and research laboratories must be sufficient for the needs of the faculty and staff.

An accredited college must maintain an on-campus veterinary teaching hospital(s), or have formal affiliation with one or more off-campus veterinary hospitals used for teaching. Appropriate diagnostic and therapeutic service components including but not limited to pharmacy, diagnostic imaging, diagnostic support services, isolation facilities, intensive/critical care, ambulatory/field service vehicles, and necropsy facilities to support the teaching hospital(s) or facilities must be provided to support the teaching hospital(s) or facilities with operational policies and procedures posted in appropriate places.

Intent: Colleges must have adequate and appropriate physical facilities to facilitate interaction among administration, faculty and students. The physical facilities must meet legal standards and be safe, well maintained, and adequately equipped. Colleges must demonstrate compliance with relevant institutional practices and the American Disabilities Act to provide appropriate access to learning and clinical facilities for students with disabilities.

What to look for: Evidence that all aspects of the physical facilities provide an appropriate learning environment for the number of students enrolled, including students with disabilities. Effective biosecurity and safety measures are in place and regularly monitored.

Classrooms, teaching laboratories, teaching hospitals, which may include but are not limited to ambulatory/field services vehicles, seminar rooms, and other teaching spaces are:

- Clean and well maintained
- Adequate in number, size, and equipment for the instructional purposes intended
- Adequate in number, size, and equipment for the number of students enrolled.

Y  MD  N
☒ ☐ ☐ ☐
Administrative and faculty offices and research laboratories are sufficient for the needs of faculty and staff.

Adequate on-campus veterinary teaching hospital(s), or formal affiliation with one or more adequate off-campus veterinary hospitals are provided for teaching.

Diagnostic and therapeutic service components, including but not limited to the following are available that reflect contemporary standards and provide an adequate learning environment:

- Pharmacy
- Diagnostic imaging
- Diagnostic support services
- Isolation facilities
- Intensive/critical care
- Ambulatory/field service vehicles
- Necropsy facilities.

Effective college and/or institutional biosecurity officer/committee and safety officers responsible for clinical and research facilities in place.

Evidence that building materials, especially flooring and wall surfaces are in good repair, promote animal and personnel safety, and can be adequately disinfected for infectious disease control.

Operational policies and procedures are posted in appropriate places.

Protocols (SOP’s) for Isolation units or other biosecurity areas are posted or readily accessible.

If Isolation units do not have separate external entrances, appropriate protocols for admission of isolation patients are in place.

Evidence of appropriate controlled substance management and auditing in the hospital pharmacy, at distributed dispensing sites in clinical facilities and in ambulatory facilities, including policies related to student access to/use of controlled substances.
Evidence of safe handling of chemotherapeutic/cytotoxic drugs.  

Y MD N  
☒ ☐ ☐

Evidence of regular monitoring of radiation safety.  

Y MD N  
☒ ☐ ☐

Evidence of regular monitoring of formaldehyde levels in anatomy laboratories and compliance with OSHA or other state regulations.  

Y MD N  
☐ ☒ ☐

Evidence that learning and clinical facilities are accessible to disabled students.  

Y MD N  
☒ ☐ ☐

Comments:

Isolation protocols were not posted for the calf and equine isolation areas. Also, one of the two bovine isolation areas did not have a posted isolation protocol.

Formaldehyde levels in the anatomy laboratory were last evaluated when the body cavity of dog cadavers were opened in an anatomy laboratory in November 2016. At that time some of the readings were above allowable maximum provincial levels. The college has plans to retest formaldehyde levels in November 2017 at the time the dog cadaver body cavities are opened during anatomy laboratories.

The pharmacy narcotics safe is secured at all times; however, the key to the safe housing the controlled substances was located in an easily accessible desk drawer in an open office within the pharmacy.

Expired drugs and fluids were present in various areas of the hospital, including small animal isolation and wildlife wards.

Dean’s Comments:

Minor deficiency regarding posting of isolation protocols.

Response: All isolation facilities now have clearly identified SOP’s posted.

Minor deficiency related to management of the pharmacist’s key to the controlled substances safe in the pharmacy.

Response: The desk drawer where the safe key is kept will now be locked, and the pharmacy office door will be closed and locked at all times. Currently, only Pharmacy and Materials Management staff have a key and a security code to enter the department. However, only pharmacy staff will have a key for the pharmacy office door and desk drawer that contains the safe key.

Note: The expired medications have been removed from all facilities, including small animal isolation and the wildlife ward. The drugs identified in the visit predate the introduction of Pyxus. With the Pyxus system now in place, improved oversight of medications will be facilitated.

Minor deficiency related to schedule for monitoring formaldehyde levels in the anatomy lab.

Response: The formaldehyde levels will be tested in the fall 2017 semester, during the lab when cadaver handling creates the worst potential formaldehyde concentrations. We have
already made operational changes to the laboratory which were suggested by our Facilities
Division; these include ensuring that cadaver bags are not left open on the floor and that table
vents are not covered. The testing is expected to confirm that these changes will reduce the
concentrations to an acceptable level and that no additional steps are required to address the
formaldehyde levels. The college plans to test regularly and include a “worst case scenario”
laboratory. Current plans are for twice yearly testing and adjust as indicated.

Site Team’s Assessment:
Photographic evidence needs to be provided of the posting of the isolation protocols.

Deficiencies (Major/Minor):
Appropriate diagnostic and therapeutic service components including but not limited to
pharmacy, diagnostic imaging, diagnostic support services, isolation facilities, intensive/critical
care, ambulatory/field service vehicles, and necropsy facilities to support the teaching
hospital(s) or facilities must be provided to support the teaching hospital(s) or facilities with
operational policies and procedures posted in appropriate places.

All aspects of the physical facilities must provide an appropriate learning environment. Safety
of personnel and animals must be a high priority.

Directives:
Provide evidence that controlled substances in the pharmacy are secured.
Provide evidence that formaldehyde levels are acceptable and establish a plan for regular
monitoring.

3.8-3.9 Facilities for the housing of animals used for teaching and research shall be sufficient
in number, properly constructed, and maintained in a manner consistent with accepted
animal welfare standards. Adequate teaching, laboratory, research, and clinical equipment
must be available for examination, diagnosis, and treatment of all animals used by the
college.

Intent: Teaching and research animals must be maintained and cared for in accordance
with the accepted animal welfare standards including the Animal Welfare Act.

What to look for: Evidence that the housing and care provided for teaching and
research animals is consistent with the Animal Welfare Act and other accepted animal
welfare standards, for example, an appropriately functioning Institutional Animal Care
and Use Committee (IACUC) is in place, favorable USDA inspection reports, and AAALAC
accreditation (not required). Evidence that the college/institutional biosecurity/safety
committee is appropriately structured and functions effectively are covered in 3.7
above.
Housing for teaching and research animals provides sufficient space that is properly constructed and maintained in accordance with accepted animal welfare standards.

Adequate teaching, laboratory, research, and clinical equipment are available for examination, diagnosis, and treatment of all animals used by the college.

Adequate safety and facilities management plans are in place and followed.

Comments:
Various groups with whom the site team met, reported that students and staff were at times working alone in the large animal hospital, including treating horses in their stalls by themselves. The college has a policy that staff ideally should never enter large animal stalls alone.

The site team also heard that students may be working in the anatomy lab alone after hours.

Dean’s Comments:
Regarding the standard concerning adequate safety and facilities plans that are in place and followed, referring to students and staff reporting that they worked alone in the large animal clinic or anatomy lab after hours.

Response: To insure student safety and prevent students from working alone in the anatomy laboratory, a new “out of hours” procedure has been developed and implemented for the anatomy laboratory:

1. Students may have access to the anatomy laboratory out of hours for self-directed study. The laboratory will be locked at 10pm every night.
2. Students can only access the laboratory in groups of 3 or more.
3. Students may have access to all prepared specimens in the main laboratory.
4. Students may access preserved specimens in bags or on dissection tables in the cooler.
5. Students are prohibited from using the overhead hoist system.
6. It is the students’ responsibility to ensure that the lab is left clean and tidy.
7. Failure to comply with these procedures will be considered a major infraction of student professional behavior.

To address concerns regarding the hoist system; please note that we have now moved to using calves and miniature horses to facilitate the ease of storage and movement of the preserved specimens. These specimens are kept on examination tables with lockable wheels. Animals are no longer suspended using the overhead hoist system.
Regarding safety and working in clinic, the Veterinary Medical Centre (the hospital) has rewritten the policy for working in the Large Animal Clinic as follows:

“Staff and students must never be alone in the Large Animal Clinic when examining or treating an animal in a stall or pen. It is mandatory that a minimum of two people are present and that adequate restraint is in place for all large animal procedures.”

This policy will be posted in the equine and food animal wards, and the isolation stalls of the Large Animal Clinic, and will be published in the VINT 580 manual (fourth year handbook), in the orientation manuals for Large Animal Medicine, Large Animal Surgery, and Theriogenology rotations, and in the hospital policy manual.

Presently, the Large Animal Clinic is staffed by at least one Registered Veterinary Technologist 5 days a week (Monday to Friday 7:00 am until 6:00 pm) and 7 nights a week (7:30 pm until 7:00 am). Additional support staff (animal attendants) are present from 8:00 am until 5:00 pm 7 days a week. It is expected that fourth year students assigned to cases within the Large Animal Clinic will participate in all treatments and examinations of their patients, with the assistance of technical and/or support staff. Additionally, it is expected that veterinary house officers (interns and residents) and/or faculty will be present to assist with all treatments and examinations if and when adequate technical, support staff or student assistance is not available, or that treatment and examination schedules after hours will be adjusted when necessary to ensure adherence to the safe working policy.

New initiatives that the Veterinary Medical Centre has undertaken since the accreditation site visit to address this issue include:

1. Establishment of a casual pool of RVT’s for the Large Animal Clinic. The casual pool is a resource to be used when technical help is needed due to illness or other absence, or when extra technical help is needed in times of high clinical demand. The casual pool has been utilized several times since its inception.

2. A casual pool of senior (4th year) DVM students has been established for similar purposes. Students who are on the casual pool can be called in, and are paid to provide assistance with clinical cases on an as needed basis. This pool has been utilized once since its inception.

3. A volunteer list of junior veterinary students (Years 1 through 3) is being established. These students will volunteer to be available to provide after hours and weekend assistance with cases in the Large Animal Clinic on an as needed basis. We have utilized volunteer student help already, and will continue to develop the volunteer program, specifically with respect to equine ICU and high risk pregnant mare cases.

4. The VMC Management Team is evaluating options for increasing RVT coverage in the Large Animal Clinic, specifically on weekends. Options include instituting a weekend day shift for the existing large animal technologist complement (4 FTE technologists and 1 Lead Hand), and/or an additional .5-1.0 FTE RVT position.

5. The existing RVT complement (4 FTE) is currently not fully staffed. The hospital is prioritizing these positions, and we expect to return to full staffing within 30 days as
our recruitment process proceeds. Once a full complement is in place, we will begin cross training all RVTs in the Large Animal Clinic, to ensure that all members can provide service in all areas of the clinic when and as needed.

The policy prohibiting students or staff from treating or examining large animals alone is crystal clear and will be well communicated. In addition, the variety of options now in place and being utilized for after-hours work in the large animal clinic should remove any reason for a student, staff member or house officer to hesitate in seeking help. While we will monitor to ensure compliance, it is reasonable and appropriate to expect everyone to work with professionalism and to adhere to VMC policies.

Site Team’s Assessment:

Evidence of the new “Out of Hours” procedure and how students and staff are informed about it needs to be provided.

Updates on the implementation of the new initiatives needs to be provided.

Deficiencies (Major/Minor):

Safety of personnel and animals must be a high priority.

Directives:

Provide evidence that protocols for student and college personnel safety when working in the large animal hospital and anatomy laboratory have been developed, implemented, communicated, and followed (attach documentation including photographic evidence where appropriate).

Overall, can the college be said to be in compliance with Standard 3?  

YES MD NO ☒ ☐ ☐
Standard 4, Clinical Resources

4.1-4.5 Normal and diseased animals of various domestic and exotic species must be available for instructional purposes, either as clinical patients or provided by the institution. While precise numbers are not specified, in-hospital patients and outpatients including field service/ambulatory and herd health/production medicine programs are required to provide the necessary quantity and quality of clinical instruction. The program must be able to demonstrate, using its assessment of clinical competency outcomes data, that the clinical resources are sufficient to achieve the stated educational goals and mission.

It is essential that a diverse and sufficient number of surgical and medical patients be available during an on-campus clinical activity for students’ clinical educational experience. Experience can include exposure to clinical education at off-campus sites, provided the college reviews these clinical experiences and educational outcomes. Further, such clinical experiences should occur in a setting that provides access to subject matter experts, reference resources, modern and complete clinical laboratories, advanced diagnostic instrumentation and ready confirmation (including necropsy). Such examples could include a contractual arrangement with nearby practitioners who serve as adjunct faculty members and off-campus field practice centers. The teaching hospital(s) shall provide nursing care and instruction in nursing procedures. A supervised field service and/or ambulatory program must be maintained in which students are offered multiple opportunities to obtain clinical experience under field conditions. Under all situations students must be active participants in the workup of the patient, including physical diagnosis and diagnostic problem oriented decision making.

Intent: The clinical resources available through the veterinary college should be sufficient to ensure the breadth and quality of outpatient and inpatient teaching. These resources include adequate numbers and types of patients (e.g., species, physiologic status, intended use) and physical resources in appropriate learning environments.

What to look for: Documentation and analysis of caseload in the Teaching Hospital, Ambulatory/Field Service, Herd/Flock Programs, and Off-campus Facilities for the past five years; Analysis must demonstrate the availability of adequate, sustainable numbers of diseased animals to fulfill the teaching, research, and service mission. The number and variety of normal animals must be consistent with student enrollment. Assess the college response to increasing/decreasing medical resources and efforts to maximize the teaching value of each case across the curriculum. Core off-campus clinical sites must provide an appropriate learning environment.

There are adequate numbers of normal and diseased animals; analysis of five year caseload data are consistent with student enrollment.  

There is an adequate mix of domestic and exotic animal species.
There are adequate numbers of in-hospital patients and outpatients. Y MD N ☒ ☐ ☐ ☐

There is adequate access to a reasonable number of surgical and medical patients. Y MD N ☒ ☐ ☐ ☐

There are adequate number of patients available for instructional purposes, either as clinical patients or provided by the institution. Y MD N ☒ ☐ ☐ ☐

Core off-campus clinical experiences occur in settings/field practice centers that provide:

- Consistent and appropriate access to subject matter expertise Y MD N ☒ ☐ ☐ ☐
  N/A ☒ ☐ ☐ ☐

- Adequate reference resources Y MD N ☒ ☐ ☐ ☐
  N/A ☒ ☐ ☐ ☐

- Access to modern and complete clinical laboratories Y MD N ☐ ☐ ☐ ☐
  N/A ☒ ☐ ☐ ☐

- Sufficient access to advanced diagnostic instrumentation and ready confirmation (including necropsy) Y MD N ☐ ☐ ☐ ☐
  N/A ☒ ☐ ☐ ☐

- Appropriate numbers of adjunct faculty members. Y MD N ☒ ☐ ☐ ☐
  N/A ☒ ☐ ☐ ☐

Students have multiple opportunities to obtain clinical experience under field conditions. Y MD N ☒ ☐ ☐ ☐

Students are active participants in the workup of the patient including physical diagnosis and diagnostic problem oriented decision making and client communication. Y MD N ☒ ☐ ☐ ☐

Comments:
The Goodale Research and Teaching Farm is used to teach students basic cattle handling techniques in first and second year and in fourth year field service rotations. All wellness rotation students spend time at the SPCA doing wellness exams, vaccinations and deworming. The implementation of the BJ Hughes simulation laboratory, and the collaboration with other health sciences colleges on campus and with Syndaver, have provided and will continue to provide, a rich environment for students to enhance their clinical skills acquisition.
4.6 Medical records must be comprehensive and maintained in an effective retrieval system to efficiently support the teaching, research, and service programs of the college.

Intent: Comprehensive, retrievable medical records are an essential instructional resource for student learning and fulfillment of the research and service mission. Although not specifically mentioned in the P&P, it is understood that the medical records include the record keeping and tracking of controlled substances. This is considered under pharmacy in Standard 3 but should be documented within this standard as well.

What to look for: Evidence of effective, retrievable medical recordkeeping across clinical service areas.

A comprehensive medical records system is maintained and kept in an effective retrieval system for major species.

Overall, can the college be said to be in compliance with Standard 4?

YES MD NO
### Standard 5, Information Resources

#### 5.1-5.6 Timely access to information resources and information professionals must be available to students and faculty at core training sites. The college shall have access to the human, digital, and physical resources for retrieval of veterinary and supporting literature and development of instructional materials, and provide appropriate training for students and faculty. The program must be able to demonstrate, using its outcomes assessment data that students are competent in retrieving, evaluating, and efficiently applying information through the use of electronic and other appropriate information technologies.

**Intent:** Timely access to information resources and information professionals is essential to veterinary medical education, research, public service, and continuing education.

**What to look for:** Evidence that the college provides adequate access to the human, digital, and physical resources for students, faculty, staff, and graduate students for information retrieval and the development of instructional materials.

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<th>Access to information resources for students and faculty is adequate on and off-campus.</th>
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<th>The qualifications of personnel who support learning and information technology resources for faculty and students are adequate.</th>
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<th>Access to personnel who support learning and information technology resources for faculty and students is adequate.</th>
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<th>Access to qualified personnel necessary for development of instructional materials is adequate.</th>
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<th>The college provides adequate access to the information technology resources necessary for development of instructional materials.</th>
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<tr>
<th>The college provides adequate resources (training, support) for students to improve their skills in accessing and evaluating information relevant to veterinary medicine from sources in various media.</th>
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<th>Current plans for improvement are adequate, if indicated.</th>
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**Comments:**

College faculty are provided strong support and opportunities for training in teaching methodologies by the Gwenna Moss Centre for Teaching and Learning.
Overall, can the college be said to be in compliance with Standard 5? YES MD NO ☒ ☐ ☐
Standard 6, Students

6.1-6.2 The number of professional degree students, DVM or equivalent, is consistent with the resources and the mission of the college. The program must be able to demonstrate, using its outcomes assessment data that the resources are sufficient to achieve the stated educational goals for all enrolled students

Intent: Accredited colleges must have sufficient resources to accommodate the number of students enrolled and meet the stated mission.

What to look for: Evidence that the facilities, number of faculty and staff, and pre-clinical/clinical resources are sufficient to meet student needs. Analyze five-year trends for enrollment, the percent minorities, and the number of students in other educational programs offered by the college.

Facilities, number of faculty and staff, and pre-clinical/clinical resources are sufficient to meet student needs. Y MD N ☐ ☒ ☐

Comments:
Several groups with whom the site team met indicated that short staffing of technicians in the hospital has contributed to students administering treatments to horses alone in the stall, including the equine isolation facility. Currently the college has three anesthesia and six small animal open positions posted for veterinary technicians in the hospital.

Dean’s Comments:
Minor deficiency related to adequate faculty and staff to meet student needs, based on reports that short staffing led to students working alone in the large animal clinic.
Response: See response to same issue in Standard 3 above, addressing the issue with multiple options.

Site Team’s Assessment:
Actions described will need to be followed up in the interim report.

Deficiencies (Major/Minor):
The number of professional degree students, DVM or equivalent, is consistent with the resources and the mission of the college.

Directives:
The number of staff must meet student needs to safely deliver the educational program.
6.3 Colleges should establish post-DVM/VMD programs such as internships, residencies and advanced degrees (e.g., MS, PhD), that complement and strengthen the professional program and not adversely affect the veterinary student experience.

Intent: Post-DVM training programs and the presence of interns, residents, and graduate students enrich the learning environment for professional students.

What to look for: The number of post-DVM students over the last five years and evidence of appropriate integration of interns, residents, and graduate students into the education of professional students. On clinical rotations, there should be sufficient caseload to support the education of professional students and interns and residents with appropriate balance between professional student and intern exposure to, and opportunity to participate in, entry-level clinical skills/competencies.

College has established post-DVM/VMD programs such as internships, residencies and advanced degrees (e.g., MS, PhD), that complement and strengthen the professional program. ☒ ☐ ☐

6.4 Student support services must be available within the college or university. These must include, but are not limited to, appropriate services to support student wellness and to assist with meeting the academic and personal challenges of the DVM program; support for students with learning or other disabilities; and support of extra-curricular activities relevant to veterinary medicine and professional growth.

Intent: To ensure student support services are readily available and adequate.

What to look for: Evidence that the college provides adequate student services for the number of students enrolled, including registration, testing, mentoring/advising, counseling (career and mental health), tutoring, services for students with disabilities, financial aid, peer assistance, and clubs and organizations.

Adequate student support services are available within the college or university. ☐ ☒ ☐

Comments:
The college has an active program to recruit indigenous persons into the student body, staff and faculty. In addition, the college has held a number of activities to promote cross-cultural learning within the college community and sponsored the painting of a mural by indigenous artists within the hospital.

Based on comments made by DVM students with whom the site team met, student support services are available in Western College of Veterinary Medicine (WCVM) and the University, and students can
easily access the college’s Student Services Office. Students indicated that staff in this office make great efforts to be available to students.

However, students raised two issues: there are sometimes longer than what they believe to be desirable wait times to access both the social worker in the college and university counsellors; and a number of students from different years reported that they have concerns with the ability of the Student Services Office staff to maintain confidentiality about students’ personal matters. This latter issue has led to some students not feeling comfortable connecting with the office. The University has recently expanded the number of counselors available to students.

Dean’s Comments:

Minor deficiency regarding wait time and confidentiality of student support services.

Response: As discussed during the accreditation site visit in October, there have been major changes to the office of Students Services on the university campus with regard to student access of all health services. The university’s Wellness Centre facility is located within a 5 minute walk from the WCVM building – (https://students.usask.ca/health/centres/wellness-centre.php). Mental Health Services have been combined with the Student Health Centre to create one holistic service. In particular, the Wellness Centre has developed a student affairs and outreach team currently comprised of four social workers. This team is responsible for intake appointments where they perform a complete evaluation and referral as indicated by the student’s need to the appropriate service. The new system appears to be working well and students in years one through three have all had a presentation from the senior Social Worker on how to use the new service. Many students may not have experienced the enhanced services at the time of the site visit and been able to document firsthand the improvements in place. Students are made aware that there are immediate services available in addition to the Veterinary Social Worker, who also provides service to clients and staff in the VMC.

The WCVM takes the student concerns with regard to confidentiality very seriously. The college also relies on data collected in our outcomes surveys of graduating students and alumni at two years post-graduation. These surveys consistently rate the Students Services office highest in their satisfaction with WCVM, as demonstrated in the results from the 2017 exit survey:

Q12. On a scale of 1 to 5, where “1” is Not at all Satisfied and “5” is Very Satisfied, how satisfied are you with the Veterinary College in each of the following:

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<td>Variety of electives available in the curriculum</td>
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<tr>
<td>Access to college administrative and support services</td>
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<td>4.2</td>
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<tr>
<td>Quality of interactions with college administrative and support services</td>
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<tr>
<td>Acquiring problem solving skills</td>
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<td>4.1</td>
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<td>3.8</td>
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We recognize that in a small school keeping information confidential presents many problems, not just through the Students Services office. However, based on comments reported by the site team, we are taking the following steps. We are scheduling a meeting with student representatives and the Associate Dean Academic to further clarify exactly what the concerns are and to ensure that we respond to those concerns. We have reached out to the University Privacy Officer to create new procedures to minimize any breaches or perceived breaches of confidentiality within the college. In house, we are in the process of moving the Students Services office to a less public space on the 4th floor, which will provide all students greater privacy.

While our outcomes data indicates strong satisfaction with access to and quality of student services available in the college, there are a variety of other resources available. Any student at the WCVM has access to faculty mentors, the WCVM Student Services office, the Veterinary Social Worker, the University of Saskatchewan Wellness Centre, and public sector resources for any concerns they do not feel comfortable disclosing.

**Site Team’s Assessment:**
Actions described will need to be followed up in the interim report.

**Deficiencies (Major/Minor):**
Student support services must be available within the college or university. These must include, but are not limited to, appropriate services to support student wellness and to assist with meeting the academic and personal challenges of the DVM program; support for students with learning or other disabilities; and support extra-curricular activities relevant to veterinary medicine and professional growth.

**Directives:**
The college must ensure that appropriate policies and procedures are developed, implemented, and monitored to ensure that the confidentiality of students’ personal information is maintained by the Student Services Office.

**Suggestions:**
The college is encouraged to continue to evaluate the availability of student counseling resources.

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**6.5 In relationship to enrollment, the colleges must provide accurate information for all advertisements regarding the educational program by providing clear and current information for prospective students. Further, printed catalog or electronic information, must state the purpose and goals of the program, provide admission requirements and procedures, state degree requirements, present faculty descriptions, clearly state information on tuition and fees along with procedures for withdrawal, give necessary information for financial aid programs, and provide an accurate academic calendar. Information available to prospective students must include relevant requirements for professional licensure.**

Intent: Accredited colleges must provide accurate, complete information for recruiting purposes. The college catalog should provide accurate admission requirements and procedures, withdrawal processes, financial aid information, licensure requirements, and an accurate academic calendar.
What to look for: Evidence the college provides accurate, complete information for recruiting purposes on its web site, catalog, and advertisements covering area listed below.

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<tr>
<th>College provides clear and current information for prospective students.</th>
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Printed catalog or electronic information:

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<tr>
<th>Provides admission requirements and procedures</th>
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<th>States information on tuition and fees</th>
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<th>States procedures for withdrawal</th>
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<th>Gives necessary information for financial aid programs</th>
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<th>Provides an accurate academic calendar</th>
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<th>Includes national and state requirements for licensure.</th>
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Comments:

Although WCVM’s admission policy includes a provision to waive residency requirements for those with a direct connection to the military or the Royal Canadian Mounted Police (RCMP), this provision is not stated on the college’s website. This omission may result in eligible candidates not applying because they do not believe their residency status would permit it.

WCVM states on its website that “Although animal and veterinary experience are not specific requirements, an applicant will be stronger if he/she can demonstrate good knowledge of the veterinary profession accompanied by firsthand experience. Applicants without significant animal and veterinary experience are rarely successful in being admitted.” Applicants may find these sentences contradictory.

Dean’s Comments:

Minor deficiency regarding perceived clarity of residency policy and requirement for animal and veterinary experience.

The following changes have been made to the admissions website to clarify the areas of concern ([https://admissions.usask.ca/veterinary-medicine.php#Admissionrequirements](https://admissions.usask.ca/veterinary-medicine.php#Admissionrequirements)):
Residency
As a regional veterinary college, the WCVM accepts applicants who are residents of the four western provinces and the northern territories. The number of applicants admitted from each western province is determined by an allotment system:

- British Columbia: 20
- Alberta: 20*
- Saskatchewan: 20
- Manitoba: 15
- Other**/Territories (Yukon, Nunavut and Northwest Territories): 1
- Education Equity Program: 2

All applicants must be Canadian citizens or permanent residents of Canada. Residents of foreign countries are not eligible to be considered for admission to the WCVM.

* The Government of Alberta is not renewing its participation in the WCVM interprovincial agreement after 2020. The WCVM will continue to admit 20 students from Alberta for the next two academic years: 2018-2019 and 2019-2020. Please click here to view more information.

** Applicants with service to the Government of Canada in the Canadian Forces, as an RCMP Officer, or similar capacity; who do not meet the criteria for residency under the rules described below, may be considered through the Other/Territories designated seat. Service considered may pertain to the applicant, their parent or spouse. Applicants should contact the WCVM Admissions Office to determine eligibility.

4. Animal and veterinary experience

Applicants are required to have both experience and good knowledge of animals and the veterinary profession to be successful in gaining admission. The diversity, quality, depth and breadth of animal and veterinary experiences are assessed in the interview.

Why is experience important?

The importance of animal and veterinary experience is to ensure applicants know what they are getting into and are making an informed career choice.

Veterinary experience

Experiences should be obtained under the supervision of a veterinarian in placements such as clinical practice, research laboratories, animal shelters, animal rehabilitation facilities, public health settings or another related industry where a veterinarian is employed. Veterinary experience provides applicants insight into the day-to-day life as a veterinarian and an understanding of the veterinary profession. The purpose of the experience is not to learn a basic core of veterinary or animal handling skills. For many, obtaining veterinary experience means spending quality time with a veterinarian, either as a volunteer or as a paid employee.

Animal experience

Significant animal experience is required, because it's assumed that most veterinarians will be working
with animals during their career. Experiences working with animals allows applicants to determine how well they enjoy working with animals, as well as gives an indication of their aptitude and compassion. "Significant animal experience" goes beyond pet ownership. For example, it could include responsibility for the care and husbandry of livestock or a food-animal unit, breeding/showing animals, experience at rehabilitation facilities or humane societies/shelters, working in a pet store, participating in equestrian activities, or any other animal related hobby or experience where a veterinarian is not always present.

**Types of animal and veterinary experience**

Applicants' experiences are often consistent with their career goals. However, it's important to understand the diversity of the veterinary profession since both the DVM curriculum and the veterinary licensing examination require proficiency in a broad range of areas for successful completion. For this reason, it is strongly advised that applicants gain experience working with a variety of species, such as cows, horses, pigs, chickens, fish, exotics, wildlife, dogs, cats, etc.

The WCVM admissions committee recognizes that applicants' career goals in the veterinary profession may change over the course of their education. During the admissions process, there are no "preferred" career choices — applicants with an interest in one type of practice are not given preferential treatment over those with interests in other areas.

**Recommended amount of experience**

The amount of animal and veterinary experience will vary from one applicant to another, because some individuals are more perceptive than others and some experiences might be more useful than others. Some applicants will be able to obtain these insights after minimal exposure, while other applicants may need more time and exposure.

**Site Team's Assessment:**

Actions described will need to be followed up in the interim report.

**Additional Reporting:**

Provide documentation that information on the policy regarding military or RCMP connection is made available in the WCVM admissions information.

Provide documentation that information on the importance of animal and veterinary experience has been clarified in the college’s admissions material.

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**6.6 Each accredited college must provide a mechanism for students, anonymously if they wish, to offer suggestions, comments, and complaints regarding compliance of the college with the Standards of Accreditation. These materials shall be made available to the Council annually.**

Intent: This is a USDE recognition requirement. It represents another method to help ensure that the evidence gathered for accreditation decisions is complete.
What to look for: A reasonable mechanism for students to comment anonymously regarding the college’s compliance with the 11 Standards of Accreditation. If comments have been received – how has the college responded?

College provides a mechanism for students, including anonymous means, if students wish, to offer suggestions, comments, and complaints regarding compliance of the college with the Standards of Accreditation.

Student comments have been made available to the Council annually.

Overall, can the college be said to be in compliance with Standard 6?
Standard 7, Admission

7.1-7.3 The college shall have a well-defined and officially stated admissions policy.

Intent: Accredited colleges are expected to have a fair and unbiased admission policy (selection process and minimum criteria) that is clearly stated and easily accessible for prospective students.

What to look for: The admissions process should be standardized as much as possible to ensure applicants are evaluated fairly and consistently. The admissions process and minimum criteria for acceptance must be clearly stated in the college catalogue and website.

The college has a well-defined admissions policy that is fair and unbiased:

<table>
<thead>
<tr>
<th>The selection process is fair and unbiased</th>
<th>Y</th>
<th>MD</th>
<th>N</th>
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<tbody>
<tr>
<td>Academic performance criteria indicate reasonable potential for successful completion of the professional curriculum.</td>
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The admissions policy is clearly stated and readily accessible.

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<th>Comments:</th>
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<tbody>
<tr>
<td>The policy of accepting applicants who do not meet residency requirements but are connected to the military or RCMP, as is provided for in the interprovincial agreement, is not on the WCVM website. This may lead to eligible students not applying to the WCVM.</td>
</tr>
</tbody>
</table>

Dean’s Comments:

Minor deficiency related to perceived lack of clarity and accessibility of the admissions and residency policy for applicants connected to the military and RCMP.

Response: See comments for same issue in 6.5 above.

Site Team’s Assessment:

This information has been provided on the website.
7.4-7.6 The policy shall provide for an admissions committee, a majority of whom shall be full-time faculty members. The committee shall make recommendations regarding the students to be admitted to the professional curriculum upon consideration of applications of candidates who meet the academic and other requirements as defined in the college’s formal admission policy.

Intent: A properly appointed faculty committee is expected to be responsible for developing and implementing the admissions process and criteria, and making recommendations regarding the candidates admitted to college.

What to look for: The majority of the admissions committee must be full-time faculty members. Adequate training should be provided for committee members and others involved in the selection process to ensure applicants are evaluated fairly and consistently. Rotating terms for committee members is considered best practice. Recommendations for admission to the college are made by the admissions committee according to the stated criteria. The admissions committee should periodically evaluate the success of the admissions process.

Admission policy provides for an admissions committee. ☒ ☐ ☐ ☐

Majority of the admission committee are full-time faculty members. ☒ ☐ ☐ ☐

An adequate training program is in place to ensure the admissions process is conducted fairly and consistently for all applicants. ☒ ☐ ☐ ☐

Committee makes recommendations regarding the students to be admitted to the professional curriculum. ☒ ☐ ☐ ☐

Candidates recommended meet the academic and other requirements defined in the college's formal admission policy. ☒ ☐ ☐ ☐

Five year trends for applicant/position and offers made/acceptances are stable. ☒ ☐ ☐ ☐

Five year trends for absolute and relative student attrition are consistent with the mission of the college. ☒ ☐ ☐ ☐

The admissions committee periodically assesses the success of the selection process to meet the mission of the college. YES ☒ ☐ ☐
7.7 Subjects for admission shall include those courses prerequisite to the professional program in veterinary medicine, as well as courses that contribute to a broad general education. The goal of pre-veterinary education shall be to provide a broad base upon which professional education may be built, leading to lifelong learning with continued professional and personal development.

Intent: The goal of pre-veterinary education shall be to provide a broad base upon which professional education may be built, leading to lifelong learning with continued professional and personal development.

What to look for: The pre-veterinary curriculum includes requirements to prepare students for the professional curriculum, as well as a broad base for professional and personal development and lifelong learning.

Subjects for admission include courses prerequisite to the professional program in veterinary medicine. ☒ ☐ ☐

Subjects for admission include courses that contribute to a broad general education. ☒ ☐ ☐

7.8 Factors other than academic achievement must be considered for admission criteria.

Intent: Effective veterinarians have a number of attributes unrelated to academic performance. Accredited colleges are required to consider other factors that contribute to the ability of their graduates to be successful members of the profession.

What to look for: Non-academic factors must be included in the selection process, for example, experience with animals and an understanding of veterinary medicine, effective interpersonal skills, leadership experience, economically disadvantaged background, etc.

Factors other than academic achievement are considered for admission. ☒ ☐ ☐ ☐

Selected candidates meet academic and non-academic requirements as defined in the college's formal admission policy. ☒ ☐ ☐ ☐

Transfer policies are academically appropriate and the five year trend for admittance is reasonable based on available resources. N/A ☒

Overall, can the college be said to be in compliance with Standard 7? YES MD NO ☒ ☐ ☐
Standard 8, Faculty

8.1-8.2 Faculty numbers and qualifications must be sufficient to deliver the educational program and fulfill the mission of the college.

Intent: Accredited veterinary colleges must have a cohort of faculty members with the qualifications and time needed to deliver the curriculum and to meet the other needs and mission of the college.

What to look for: Evidence that the number of faculty with appropriate qualifications in each functional area are adequate to deliver the didactic and clinical curriculum and fulfill the mission of the college.

The curricular responsibilities of faculty lost over the last five years have been replaced through faculty renewal, other appropriate personnel, or mitigated by curricular change. Y MD N ☒ ☐ ☐

Faculty numbers and qualifications in each functional area are sufficient to deliver the educational program and fulfill the mission of the college. Y MD N ☒ ☐ ☐

Comments:
Although the college manages to deliver the curriculum, a shortage of faculty in small animal surgery and imaging is straining the limits of the individuals involved which could result in the deterioration of the ability to deliver the program. The college has recently hired a surgeon, who will be joining the faculty in the near future.

8.3-8.4 Participation in scholarly activities is an important criterion in evaluating the faculty and the college. The college shall give evidence that it utilizes a well-defined and comprehensive program for the evaluation of the professional growth, development, and scholarly activities of the faculty.

Intent: A comprehensive faculty evaluation program stimulates continuous professional development.

What to look for: Evidence that promotion and tenure policies and procedures and annual performance review process include consideration of professional growth, development, and scholarly activity, for example, student and peer course evaluations, publications, research funding, etc.

The college utilizes a well-defined and comprehensive program for the evaluation of professional growth, development, and scholarly activities of the faculty. Y MD N ☒ ☐ ☐
Appropriate weight is assigned to teaching, research and service activities for career advancement.

8.5 Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the faculty.

Intent: Accredited colleges must provide adequate security and benefits to maintain a stable group of core faculty to provide continuity and assure ongoing faculty competence.

What to look for: Evidence that security and benefits are adequate to attract and retain competent faculty, for example, competitive salary and benefit packages, adequate start-up funds, support for professional activities, such as, scientific meetings, invited presentations, sabbatical leave, development in methods in effective teaching.

Faculty turnover the last five years is within normal limits (typically \(<\) 10%).

Adequate professional development opportunities are available for faculty growth.

Academic positions offer adequate security and benefits to attract and retain qualified faculty.

Comments:

In the last five years the college has lost 33 faculty and gained 37. Currently the college has 10 open positions, two of which are open in anticipation of upcoming faculty retirements. There are challenges facing the college in attracting and retaining qualified clinicians in small animal surgery and imaging. Based on information provided in various meetings, it appears to the site team that there is a negative workplace culture in the small animal hospital which is contributing to faculty turnover. The college has implemented a process to improve workplace culture.

Dean’s Comments:

Minor deficiency related to perceived issue with faculty turnover.

Response: The college disagrees with the conclusion that faculty turnover demonstrates a minor deficiency and believes the site team has misjudged the information. A closer examination of the data demonstrates healthy recruitment and retention, despite our location in Saskatoon which can admittedly pose a recruitment challenge. In addition, our culture change project is a proactive effort at improvement in the teaching hospital and is not a response to faculty turnover. Specifically, in the time period reported, 24 positions were opened in the two clinical science departments. Of these, 10 were routine retirements and 4 were term positions that came to an end (term positions are often used for sabbatical and
maternity leave coverage). That leaves 10 resignations since 2011 in the clinical science departments.

Considering specifically our loss of surgeons, three early career, pre-tenure surgery faculty left in one summer, citing a preference for private practice. Of those three, two of them told us at the time of their hire that they were ultimately aiming for private practice but accommodating spousal careers in the short term. We currently have four faculty lines budgeted in small animal surgery. We are operating with two senior surgeons, one experienced clinical associate, one early career clinical associate, and a new surgery faculty member hired but studying for boards. Two additional interviews are scheduled for early January. While the sudden departure of three surgeons was a challenge, we have made good progress with our recruitment efforts. Other very reasonable cases of clinician resignation due to a pull from elsewhere include a pre-tenure faculty member who was recruited to her home state and institution, where she now lives 30 minutes from her parents.

Regarding the criticism over recruitment of medical imaging faculty, we currently have three board certified medical imaging faculty, and one additional clinical associate on long term disability. The medical imaging section is also currently training post-graduate veterinarians. We arguably have the strongest medical imaging group in Canada (two schools recently reported having 1 or none on faculty).

The site team noted that we have a net growth in faculty and have strategically used cluster hires linked to anticipated retirements. This has been a valuable method to generate excitement and transformative planning within departments. Thus the open positions mentioned are a positive and proactive tool with which we have enjoyed significant success. Our most recent hire in Veterinary Microbiology came to us from Harvard, and he is the second such hire from that institution. Therefore, we consider the application of a minor deficiency to be misjudged and based on incomplete information. We request that it be removed from the site visit report. We would be happy to provide further data and clarification if requested.

**Site Team’s Assessment:**
The site team believes it has made a correct assessment of the issue of faculty turnover.

### 8.6 Part-time faculty, residents, and graduate students may supplement the teaching efforts of the full-time permanent faculty if appropriately integrated into the instructional program.

**Intent:** To ensure adequate full-time, permanent faculty members are present to effectively supervise teaching assignments of part-time faculty, residents, and interns. Whereas colleges may need to engage part-time faculty or locums for didactic teaching or clinical rotations, to meet curricular objectives, it is important to assess plans for hiring permanent faculty to provide this instruction, especially in core disciplines, so that there is stability so students have regular access to this disciplinary expertise.

**What to look for:** Evidence that full-time, permanent faculty provide adequate supervision of part-time faculty, residents, and interns. If part-time faculty are used,
evidence that there is stability/consistency of curricular contributions and that there are plans to replace these faculty with permanent faculty. If residents and graduate students are used in instruction of professional students, evidence that they are appropriately mentored in effective teaching and not solely responsible for student grades for didactic and clinical courses/rotations.

Full-time, permanent faculty ensure supplementary teaching efforts by part-time faculty, residents, and graduate students are appropriately integrated into the instructional program.

The amount of the core curriculum delivered by part-time faculty does not impact the effectiveness or quality of the educational program and that student access to this disciplinary expertise is not compromised.

Overall, can the college be said to be in compliance with Standard 8? YES MD NO

Y ☒ MD ☐ N ☐
Standard 9, Curriculum

9.1 The curriculum shall extend over a period equivalent to a minimum of four academic years, including a minimum of one academic year of hands-on clinical education. The curriculum and educational process should initiate and promote lifelong learning in each professional degree candidate.

Intent: Adequate coverage of the material necessary to educate a competent veterinarian requires a minimum of four academic years, including at least one academic year of hands-on clinical education.

What to look for: The curriculum extends an equivalent of four academic years, including a minimum of one academic year of hands-on, clinical education.

The curriculum extends an equivalent of four academic years; including a minimum of one academic year of hands-on, clinical education.

9.2-9.3 The curriculum in veterinary medicine is the purview of the faculty of each college, but must be managed centrally based upon the mission and resources of the college. There must be sufficient flexibility in curriculum planning and management to facilitate timely revisions in response to emerging issues, and advancements in knowledge and technology. The curriculum must be guided by a college curriculum committee. The curriculum as a whole must be reviewed at least every seven (7) years. The majority of the members of the curriculum committee must be full-time faculty. Curriculum evaluations should include the gathering of sufficient qualitative and quantitative information to ensure the curriculum content provides current concepts and principles as well as instructional quality and effectiveness.

Intent: The curriculum must be established by a competent faculty and managed centrally by the dean’s office in conjunction with an appropriately configured faculty curriculum committee according to the stated mission of the college. The curriculum requires regular review and management by the curriculum committee based on the collection and analysis of sufficient qualitative and quantitative evidence.

What to look for: The curriculum is regularly reviewed and managed by an appropriately configured faculty curriculum committee (e.g., staggered terms of appointment or rotating membership). A holistic review of the curriculum that has occurred within the last seven years or is currently in review. This does not require the curriculum to be revised, but that all facets of the curriculum, as one unit, reviewed. Curricular review should include the collection and analysis of sufficient qualitative and quantitative data to ensure curricular revisions promote instructional quality and effectiveness and include current concepts and principles necessary to meet societal needs.
The majority of the members of the curriculum committee are full-time faculty.

The curriculum is regularly reviewed and managed (revised), as indicated, by the dean’s office in conjunction with an appropriately configured college curriculum committee.

Adequate process for assessing curricular overlaps, redundancies, omissions.

The curriculum, as a whole, has been reviewed within the last seven years.

Comments:

Following a comprehensive curriculum review, WCVM is now in the process of identifying curricular arcs which will link year 4 demonstrated entrustable professional activities (DEPAs) to learning objectives in years 1-3. Anticipated completion of the curricular arcs project is academic year 2018/19.

9.4-9.5 The curriculum shall provide:

a. an understanding of the central biological principles and mechanisms that underlie animal health and disease from the molecular and cellular level to organismal and population manifestations.

b. scientific, discipline-based instruction in an orderly and concise manner so that students gain an understanding of normal function, homeostasis, pathophysiology, mechanisms of health/disease, and the natural history and manifestations of important animal diseases, both domestic and foreign.

c. instruction in both the theory and practice of medicine and surgery applicable to a broad range of species. The instruction must include principles and hands-on experiences in physical and laboratory diagnostic methods and interpretation (including diagnostic imaging, diagnostic pathology, and necropsy), disease prevention, biosecurity, therapeutic intervention (including surgery), and patient management and care (including intensive care, emergency medicine and isolation procedures) involving clinical diseases of individual animals and populations. Instruction should emphasize problem solving that results in making and applying medical judgments.

d. instruction in the principles of epidemiology, zoonoses, food safety, the interrelationship of animals and the environment, and the contribution of the veterinarian to the overall public and professional healthcare teams.
e. opportunities for students to learn how to acquire information from clients (e.g. history) and about patients (e.g. medical records), to obtain, store and retrieve such information, and to communicate effectively with clients and colleagues.

f. opportunities throughout the curriculum for students to gain an understanding of professional ethics, influences of different cultures on the delivery of veterinary medical services, delivery of professional services to the public, personal and business finance and management skills; and gain an understanding of the breadth of veterinary medicine, career opportunities and other information about the profession.

g. knowledge, skills, values, attitudes, aptitudes and behaviors necessary to address responsibly the health and well-being of animals in the context of ever-changing societal expectations.

h. fair and equitable assessment of student progress. The grading system for the college must be relevant and applied to all students in a fair and uniform manner.

Intent: Accredited veterinary colleges must prepare entry level veterinarians with sufficient understanding of basic biomedical sciences, clinical sciences, and effective clinical and professional skills to meet societal needs.

What to look for: Evidence that the curriculum provides all the curricular elements listed in the standard.

Stated curricular objectives are appropriate and clearly integrated into individual courses.

The curricular digest indicates courses and rotations as a whole provide appropriate rigor and sequence to meet curricular objectives and the mission of the college.

Curricular changes since the last accreditation site visit reflect appropriate curricular review and management.

Self-identified curricular weaknesses have been or are being addressed by the curriculum committee in a timely manner.

Preceptor and externship programs are effectively managed and evaluated by faculty to ensure educational objectives are met.

Curriculum content provides current concepts and principles that underlie animal health and disease.

Curriculum covers mechanisms from the molecular and cellular level to organismal and population manifestations.
Evidence of students’ understanding of normal function, homeostasis, pathophysiology, mechanisms of health/disease, and the natural history and manifestations of important domestic animal diseases is adequate.

Evidence of students’ understanding of normal function, homeostasis, pathophysiology, mechanisms of health/disease, and the natural history and manifestations of important foreign animal diseases is adequate.

Curricular delivery is rooted in scientific, discipline-based instruction.

Evidence of high quality and effective instruction in theory and practice of medicine and surgery applicable to a broad range of species is adequate.

Instruction includes principles and hands-on experience in physical and laboratory diagnostic methods and interpretation (including diagnostic imaging, diagnostic pathology, and necropsy).

Instruction includes principles and hands-on experience in disease prevention.

Instruction includes principles and hands-on experience in biosecurity.

Instruction includes principles and hands-on experience in therapeutic intervention (including surgery).

Instruction includes patient management and care (including intensive care, emergency medicine and isolation procedures).

Instruction includes principles and hands-on experience involving clinical diseases of individual animals and populations.

Instruction emphasizes problem-solving that results in making and applying medical judgments.

Instruction includes principles of epidemiology, zoonoses, food safety, the interrelationship of animals and the environment, and the contribution of the veterinarian to the overall public and professional healthcare teams.

Instruction allows for opportunities for students to learn how to acquire information from clients (e.g. history) and about patients (e.g. medical records).

Instruction allows for opportunities to obtain, store and retrieve medical records information, and to communicate effectively with clients and colleagues.

Opportunities are available throughout the curriculum for students to gain an understanding of professional ethics, influences of different cultures on the delivery of veterinary medical services, delivery of professional services to the public, personal and business finance and management skills.
Opportunities are available throughout the curriculum for students to gain an understanding of the breadth of veterinary medicine, career opportunities and other information about the profession.

Curriculum provides for knowledge, skills, values, attitudes, aptitudes and behaviors necessary to address responsibly the health and well-being of animals in the context of ever-changing societal expectations.

Assessment of student progress is fair and equitable.

Adequate procedures in place to uphold academic standards.

The grading system is relevant and applied to all students in a fair and uniform manner.

Comments:

Objective Structured Clinical Exams (OSCE) were conducted for the first time with the year 1 class in spring 2017. While the OSCEs went well, WCVM will continue to refine the process. They plan to conduct OSCEs for both year 1 and 2 students in spring 2018.

In response to a perceived lack of financial literacy education in the curriculum, the year 3 core course VINT 411 Business Topics in Professional Practice now includes discussions about contracts, insurance and investments.

The ongoing curricular arcs project will prevent expansion of material, as well as identify omissions and redundancies within the curriculum.

All students are instructed in isolation procedures; however, not all students have hands on experience in isolation procedures. Students receive experience only if they have a hospital case that requires isolation.

Dean’s Comments:

Minor deficiency related to observation that all students receive instruction in isolation procedures but not all students have hands-on experience in isolation procedures.

A new laboratory session has already been developed in the VLAC 482 course, where all students in 3rd year receive instruction in isolation protocols and are directly evaluated in their ability to use PPE and enter/exit isolation facilities appropriately. The laboratory includes an assessment of students practicing isolation procedures. The first sessions were run on Nov 21st and 22nd, 2017

Site Team’s Assessment:

The college needs to provide evidence of how hands-on isolation procedures are taught and assessed.

Additional Reporting:

Provide documentation that all students are receiving hands-on experiences in isolation procedure.
Overall, can the college be said to be in compliance with Standard 9? YES MD NO ☒ ☐ ☐
**Standard 10, Research Programs**

10.1-10.4 The college must maintain substantial research activities of high quality that integrate with and strengthen the professional program. The college must demonstrate continuing scholarly productivity and must provide opportunities for any interested student in the professional veterinary program to be exposed to or participate in on-going high-quality research. All students must receive training in the principles and application of research methods and in the appraisal and integration of research into veterinary medicine and animal health.

Intent: The research standard serves to ensure student exposure to performance of high quality research and ability to acquire, evaluate, and use new knowledge. The development and maintenance of a community of scholars enhances the educational experience for students. DVM students should be introduced to how new knowledge is developed and disseminated and should have access to participation in coursework and career development in research.

What to look for: The existence of a college research program that is adequate in scope and quality to expose students to high quality research. Examples of learning objectives may include acquisition and evaluation of scientific literature, experimental and non-experimental design, critical analysis of data, scientific writing including writing of research proposals and submission of manuscripts for publication, and hands-on experience in bench, clinical, or field research.

Objective metrics indicate substantial, high quality level of faculty research activity, for example:

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- Number of individual faculty members within each department involved in research (total research FTE)
- Number of publications in refereed scientific journals, book chapters, case-reports
- Regular participation and presentation of original research in scientific meetings, poster sessions, publication of abstracts
- Involvement in external research panels, commissions, and advisory or editorial boards
- Number and amount of competitive, extramural research funding
- National and international research awards received.
- Evidence of ongoing scholarly activity

Y = Yes, MD = Missing Data, N = No
DVM program learning objectives include:

- Acquisition and evaluation of scientific literature
  - YES
  - NO

- Experimental and non-experimental research design
  - YES
  - NO

- Critical analysis of data
  - YES
  - NO

- Scientific writing.
  - YES
  - NO

Students have had opportunities to do:

- Write research proposals
  - YES
  - NO

- Submit manuscripts for publication
  - YES
  - NO

- Hands-on experience in bench, clinical, or field research
  - YES
  - NO

- Interaction with graduate students.
  - YES
  - NO

Evidence that students learn to acquire, evaluate, and use new knowledge.

- Evidence that students learn the principles and application of research methods
  - YES
  - NO

- Evidence of student involvement in research after graduation.
  - YES
  - NO

Adequate student exposure to performance of high quality research.

**Comments:**

Students, with whom the site team met who had participated in the summer research program were very pleased with their experience, even if they were not going on to pursue a research career. Faculty actively promote summer research opportunities to students.

**Overall, can the college be said to be in compliance with Standard 10?**

- YES
  - MD
  - NO
Standard 11, Outcomes Assessment

11.1-11.15 Outcomes of the DVM program must be measured, analyzed, and considered to improve the program. New graduates must have the basic scientific knowledge, skills, and values to provide entry-level health care, independently, at the time of graduation. Student achievement must be included in outcome assessment. Processes must be in place to remediate students who do not demonstrate competence in one or more of the nine competencies.

The college should have in place a system to gather outcomes data on recent graduates to ensure that the competencies and learning objectives in the program result in relevant entry level competencies.

The college must have processes in place whereby students are observed and assessed, with timely documentation to assure accuracy of the assessment for having attained each of the following competencies:

1. comprehensive patient diagnosis (problem solving skills), appropriate use of clinical laboratory testing, and record management
2. comprehensive treatment planning including patient referral when indicated
3. anesthesia and pain management, patient welfare
4. basic surgery skills, experience, and case management
5. basic medicine skills, experience and case management
6. emergency and intensive care case management
7. health promotion, disease prevention/biosecurity, zoonosis, and food safety
8. client communications and ethical conduct
9. critical analysis of new information and research findings relevant to veterinary medicine.

The Council on Education expects that 80% or more of each college’s graduating senior students sitting for the NAVLE will have passed at the time of graduation.*

*Colleges that do not meet this criterion will be subjected to the following analysis. The Council will calculate a 95% exact binomial confidence interval for the NAVLE scores for colleges whose NAVLE pass rate falls below 80%. Colleges with an upper limit of an exact 95% binomial confidence interval less than 85% for two successive years in which scores are available will be placed on Probationary Accreditation. Colleges with an upper limit of an exact 95% binomial confidence level less than 85% for four successive years in which scores are available will, for cause, be placed on terminal accreditation. If no program graduates take the NAVLE, the Council will use other student educational outcomes in assessing compliance with the standard including those listed in 12.11.1.

Intent: Outcomes of the DVM program must be measured, analyzed, and acted upon, as needed, to maintain compliance with the standards of accreditation and promote continuous program improvement.
What to look for: Student achievement during the pre-clinical and clinical curriculum and after graduation must be included in outcome assessment. Evidence produced through outcomes assessment data collection and analysis must demonstrate that new graduates have the basic scientific knowledge, skills, and values to provide entry-level health care, independently, at the time of graduation.

Learning objectives for each of the nine listed competencies and a summary of the analysis of evidence-based data collected for each of the nine competencies must demonstrate graduates are prepared for entry-level practice. Evidence that there is a process to provide remediation for those students who have not demonstrated competence in one or more of the nine competencies. Evidence of student learning outcomes for the nine clinical competencies must be obtained and that students are observed and assessed. Evidence that outcomes assessment results have been used to improve the curriculum are required for compliance.

Outcome assessment includes evidence of student achievement during the:

- Pre-clinical years
- Clinical years
- After graduation.

Outcome assessment includes evidence that students and graduates at the time of graduation, have:

- The program’s stated learning outcomes
- Basic scientific knowledge
- Entry-level clinical skills
- Values to provide entry-level health care independently.

Evidence exists for student competency in:

- Comprehensive patient diagnosis (problem solving skills)
- Appropriate use of clinical laboratory testing
- Record management
Comprehensive treatment planning including patient referral when indicated

Patient welfare

Anesthesia and pain management

Basic surgery skills, experience, case management

Basic medicine skills, experience, case management

Emergency and intensive care case management

Health promotion, disease prevention/biosecurity

Zoonosis and food safety

Client communications

Ethical conduct

Critical analysis of new information and research findings relevant to veterinary medicine.

Evidence of a process for remediation of students who have not demonstrated attainment of each of the clinical competencies.

Evidence of plan to reverse negative trend(s) if and when necessary.

Adequacy of NAVLE School Score Report within expected range of NAVLE passing percentages.

If applicable, adequate explanation and corrective remediation measures for decrease in NAVLE passing percentages.

Evidence of assessments of educational preparedness and employment satisfaction of:

Graduating seniors

Alumni at some post-graduation point.

Employers of graduates

Program Outcomes:
Five-year trends in student attrition rates within reason.  

If applicable, adequate explanation and corrective remediation measures for increase in student attrition rates.  

N/A ☒

Five-year trends in one-year post-graduation employment rates.  

If applicable, adequate explanation and corrective remediation measures for decrease in employment rates.  

N/A ☒

Evidence of assessments of faculty, instructors, interns, residents.  

Evidence of assessments of adequacy of clinical resources, facilities and equipment.  

Institutional Outcomes:  
Evidence of evaluation of college progress  
Adequacy of resources and organizational structure to meet the educational purposes  
Appropriateness of outcomes assessed that are meaningful for the overall educational process  
Evidence that outcome findings are used by the college to improve the educational program.  

Comments:  
The college uses DEPAs as a method of evaluating core competencies of fourth year students. These may be assessed using direct observations and/or OSCEs.  
The college currently has several initiatives underway the outcomes of which may not be known for some time. The college plans to develop the curricular arcs and track them back through the four years of the curriculum in academic year 2016-17. They plan to develop the first year OSCEs in the same time frame. By the summer of 2017 they plan to develop the second year OSCEs and to review the final year assessment methods. They plan to implement the second year OSCEs in academic year 2017-18, to develop and implement the comprehensive competency based assessment in all fourth year rotations, and develop the third year OSCEs. Implementing the third year OSCEs is planned for academic year 2018-19.  

Overall, can the college be said to be in compliance with Standard 11? YES MD NO
CLASSIFICATION OF ACCREDITATION

The University of Saskatchewan Western College of Veterinary Medicine is Accredited with minor deficiencies in Standard 3 Physical Facilities and Equipment and Standard 6 Students.
DVM Program purpose = To graduate veterinarians with a strong foundation of basic knowledge and skills who are ready to enter practices in Western Canada

We intend a Year 1 curriculum that will

- provide essential knowledge and skills required for entry to Year 2 of the DVM program
- deliver an integrated and co-ordinated learning experience
- develop capacity for professional and life-long learning
- support student well-being and development
- be flexible and responsive to changing curricular needs

Our principles for decision-making and a glossary of terms to make all meanings as clear as possible are provided on the back of this document.

DVM Year 1 Learning Outcomes = These are what we agree all students leaving Year 1 need to have at least achieved to be ready for Year 2. These are not the only possible learning outcomes—we expect students to gain a variety of others given a range of interests and illustrative topics as they develop their competence.

1. Perform basic medical and surgical procedures, appropriate for Year 1
2. Perform a complete physical examination on a normal animal for common domestic species
3. Describe and explain the normal gross and microscopic structure, function and development of organs and body systems in common domestic species
4. Identify, describe and compare the normal anatomical organization of body regions, organs and structures in live animals, radiographs and specimens for the common domestic species
5. Describe the normal structure and metabolism of basic cells and tissues and explain the morphological and pathophysiological mechanisms underlying the common disease processes.
6. Interpret, prioritize and evaluate a set of data from animals with uncomplicated disease conditions, and explain the findings in relation to normal anatomy and physiology.
7. Evaluate and critique the accuracy and reliability of health-related information
8. Perform safe, appropriate animal handling and restraint in common domestic species
10. Describe the relationships between the animal host, pathogen and the environment in the emergence of infectious disease in multiple domestic species.
11. Demonstrate effective verbal communication with peers and articulate the principles and importance of professional behaviour (respectful listening, clear communication, collaboration) in veterinary medicine.
12. Self-evaluate personal well-being, and document personal growth and learning through the Year 1 DVM program
13. Describe and compare business structures, financial statements, lending and investing vehicles, and the elements of contract law and negligence as they relate to veterinary business.
<table>
<thead>
<tr>
<th>Provide essential knowledge and skills required for entry to Year 2 of the DVM program</th>
<th>Deliver an integrated* and co-ordinated* learning experience</th>
<th>Develop capacity for professional and life-long learning</th>
<th>Support student well-being* and development</th>
<th>Be flexible and responsive* to changing curricular needs</th>
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<td>1. Design the program to achieve Year 1 learning outcomes* and indicators* that are collectively constructed</td>
<td>1. Ensure clarity of the relevance* of content within and across courses</td>
<td>1. Incorporate direct instruction and practice related to self-assessment, adaptability, flexibility, professional development, and group process</td>
<td>1. Incorporate direct instruction and practice related to managing stress and promoting wellbeing</td>
<td>1. Provide multiple opportunities for students to provide feedback to the program</td>
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<td>2. Distinguish between essential* and illustrative* content</td>
<td>2. Align subject areas within the Year 1 program.</td>
<td>2. Develop critical thinking in a range of learning experiences and assessments</td>
<td>2. Ensure experiences and knowledge application opportunities are at appropriate level for Year 1 outcomes</td>
<td>2. Develop a process for ongoing review and revision for an aligned curriculum*</td>
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<td>3. Align content (knowledge and skills) with Year 1 learning outcomes, their indicators, and with core competencies* of the DVM program</td>
<td>3. Present essential terminology intentionally across courses to maximize students’ clarity</td>
<td>3. Provide assessments that mimic practice and professional settings where possible</td>
<td>3. Provide sufficient practice opportunities and formative feedback to promote a growth mindset*</td>
<td>3. Determine and make changes cooperatively, based on evidence, and with consideration of stakeholders* and societal needs</td>
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<td>4. Prioritize Year 1 content based on use in Year 2, ensuring proximity of the learning between years</td>
<td>4. Chunk, sequence, and reiterate content within and across courses to make essential knowledge and skills in Year 1 clear to students.</td>
<td>4. Link content and learning opportunities to Year 1 learning outcomes and core competencies of the DVM program explicitly for students</td>
<td>4. Ensure experiences and knowledge application opportunities and formative feedback to promote a growth mindset*</td>
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<td>5. Use teaching and assessment methods* that support students’ achievement of Year 1 learning outcomes.</td>
<td>5. Ensure clarity of the relevance* of content within and across courses</td>
<td>5. Incorporate direct instruction and practice related to self-assessment, adaptability, flexibility, professional development, and group process</td>
<td>5. Ensure experiences and knowledge application opportunities are at appropriate level for Year 1 outcomes</td>
<td>5. Provide multiple opportunities for students to provide feedback to the program</td>
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**Glossary of Key Terms**

* *Learning outcomes* = essential for students to be able to know or do at the end of Year 1
* *Indicators* = types of things we accept as evidence students have attained the Learning outcomes
* *Essential content* = information students need to meet the Learning outcomes
* *Illustrative content* = related information that clarifies, but students don’t need to demonstrate they know it
* *Core competencies* = those defined by COE
* *Teaching methods* = ways to engage students in learning content, e.g., effortful engagement (active learning) by students is more effective for learning than traditional lecture approaches.
* *Assessment methods* = ways to assess students learning formatively (for future improvement) and summatively (for grade calculation)
* *Relevance* = relationship of what students are asked to learn to their immediate or longer term goals, i.e., stronger the relationship the better for deeper learning
* *Student well being* = healthy mind, healthy body, healthy life
* *Growth mindset* = belief that ability can be developed through determination and hard work (see Dweck)
* *Responsiveness* = an attitude of considering the needs, requests, and perspectives of students/others and providing a transparent and measured response—it does not automatically mean providing what is requested.

* *Aligned curriculum* = a system of learning experiences that support and enable students to attain learning outcomes and to demonstrate their achievement through valid assessments of those learning outcomes
* *Stakeholders* = those groups representing a range of patient/client, professional, and accrediting body needs and perspectives
Appendix 6.

Mapping the WCVM proposed curriculum to the CBVE framework

Year 1

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- VBMS 222.3 Veterinary Neuroscience
- VBMS 250.9 Veterinary Anatomy
- VBMS 260.13 Form and Function
- VINT 202.5 Veterinary Clinical Skills
- VINT 210.1 Veterinary Career Seminars
- VINT 211.1 Veterinary Business I
- VLAC 215.2 Animal Welfare and Behaviour
- VTMC 230.2 Veterinary Immunology
- VTMC 238.2 Disease Ecology and Epidemiology
- VINT 203.1 Professional Foundations
- VTPA 252.3 General Pathology
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Appendix 5.

Mapping the University of Saskatchewan Learning Charter to the AAVMC Competency Based Veterinary Education framework

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**Doctor of Veterinary Medicine (D.V.M.)**

### Year 1

**43 credit units**

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Doctor of Veterinary Medicine (D.V.M.)

Year 2

48 credit units

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TOTAL: 736.5
### Doctor of Veterinary Medicine (D.V.M.)

#### Year 3

**55 Credit Units**

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