



Western College of Veterinary Medicine

TO: Amanda Storey

FROM: Dr. Chris Clark Associate Dean (Academic)
Western College of Veterinary Medicine

DATE: October 2, 2015

RE: **WCVM Program Changes**

The WCVM faculty has recommended that Veterinary Theriogenology (VLAC 470.4) be split into two separate courses: VLAC 471.3 (Food Animal Reproductive Management) and VLAC 472.2 (Companion Animal Theriogenology).

Simplicity and efficiency are the key rationale for introducing this course: The VLAC 470 course has been a 4 credit course taught over 3 quarters. Students find the course to be onerous largely because of the volume of material that is taught, the large number of labs, and the duration of the course. The final exam is cumulative and months elapse between the beginning of the course and the final exam. Additionally, fertility in cattle is managed at a herd level whereas companion animals are handled individually. While in all species we are dealing with reproduction, the dealing with herd versus individuals requires a completely different focus.

The WCVM faculty has recommended that due to redundancy, the 2nd year Public Health class (VTMC 340) be combined into 3 courses: Survey of Veterinary Medicine (VINT 210), Disease Ecology and Epidemiology (VT MC 238) and Evidence-based Medicine (VLAC 320).

Proposed 2016-17 Changes:

Doctor of Veterinary Medicine (D.V.M.)

Program Requirements

Doctor of Veterinary Medicine (D.V.M.) (~~167 credit units~~ 165 credit units)

Year 1

41 credit units

- [VBMS 202.4](#)
- [VBMS 208.1](#)
- [VBMS 220.8](#)
- [VBMS 222.3](#)
- [VBMS 223.2](#)
- [VBMS 224.9](#)
- [VBMS 231.4](#)
- [VINT 210.1](#)
- [VINT 211.1](#)
- [VLAC 211.3](#)
- [VSAC 205.1](#)
- [VTMC 230.2](#)
- [VTMC 238.2](#)

Year 2

~~44 credit units~~ 41 credit units

- [VBMS 305.2](#)
- [VBMS 333.6](#)
- [VBMS 334.3](#)
- [VLAC 310.3](#)
- [VLAC 320.2](#)
- [VSAC 356.1](#)
- [VSAC 357.1](#)
- [VSAC 362.2](#)
- [VSAC 376.3](#)
- [VTMC 334.2](#)
- [VTMC 336.2](#)
- ~~[VTMC 340.3](#)~~
- [VTMC 347.3](#)
- [VTPA 346.3](#)
- [VTPA 352.3](#)
- [VTPA 353.5](#)

Year 3

~~50 credit units~~ 51 credit units

- [VBMS 436.3](#)
- [VINT 411.2](#)
- [VINT 415.1](#)
- [VLAC 462.5](#)
- ~~VLAC 470.4~~—split into VLAC 471.3 and VLAC 472.2
- ~~VLAC 471.3~~
- ~~VLAC 472.2~~
- [VLAC 482.5](#)
- [VSAC 410.1](#)
- [VSAC 458.1](#)
- [VSAC 460.1](#)
- [VSAC 462.1](#)
- [VSAC 463.5](#)
- [VSAC 465.4](#)

Electives

Choose 17 credit units from the following:

- [VBMS 422.1](#)
- [VBMS 431.1](#)
- [VBMS 433.1](#)
- [VBMS 435.1](#)
- [VBMS 437.2](#)
- [VBMS 439.2](#)
- [VINT 400.2](#)
- [VINT 438.1](#)
- [VINT 439.2](#)
- [VINT 440.2](#)
- [VINT 442.2](#)
- [VLAC 429.1](#)
- [VLAC 433.2](#)
- [VLAC 437.2](#)
- [VLAC 439.2](#)
- [VLAC 441.2](#)
- [VLAC 443.2](#)
- [VLAC 445.2](#)
- [VLAC 447.2](#)
- [VLAC 449.2](#)
- [VLAC 451.1](#)
- [VLAC 453.2](#)
- [VLAC 455.1](#)
- [VSAC 435.2](#)

- [VSAC 437.2](#)
- [VSAC 439.2](#)
- [VSAC 441.1](#)
- [VSAC 443.1](#)
- [VSAC 445.2](#)
- [VSAC 449.2](#)
- [VSAC 454.1](#)
- [VSAC 455.1](#)
- [VSAC 456.1](#)
- [VSAC 457.1](#)
- [VSAC 475.1](#)
- [VSAC 477.1](#)
- [VTMC 441.1](#)
- [VTPA 421.1](#)
- [VTPA 431.2](#)
- [VTPA 434.1](#)

Year 4

32 Credit Units

- [VINT 580.32](#)

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: Large Animal Clinical Science _____ College of: Western College of Veterinary Medicine
2. Signature of department head or dean: _____
3. Information required for the Calendar:

3.1 Label & Number of course: VLAC 473.2

3.2 Title of course: General Theriogenology

3.3 Total Hours: Lecture 25 Seminar Lab 10 Tutorial Other

3.4 Weekly Hours: Lecture Seminar Lab Tutorial Other

3.5 Term in which it will be offered: __T1, __T2 , __T1 or T2 x , __T1 and T2

3.6 Prerequisite: Completion of the second year of the DVM program.

3.7 Calendar description:

This course is designed to enhance the students' knowledge of normal reproductive patterns of companion animals to foster a greater understanding of modern assisted reproductive technologies and to develop a level of knowledge regarding the diagnosis and management of reproductive problems suitable for those entering clinical practice.

3.8 Any additional notes

Labs – each student will receive 4 hours of instruction in mare palpation. This is an approximate number; our facilities allow for the palpation of only 6 mares at one time in any laboratory period, and the students are assigned to individual mares in groups of 3, and occasionally 4. We will offer 12 hours of palpation lab, repeated once. To accomplish this, the class will be split in two such that 40 students attend the palpation lab at a time, with the first 20 palpating for 30 minutes, and then the second group palpating for the remainder of the hour. This will require 24 hours of instructor time. Our hours of core mare palpation remain higher than the other Canadian schools (See Appendix A).

Stallion Breeding Soundness Evaluation labs will remain as they are currently in VLAC 470. One lab session, 2 hours in duration, offered to 40 students (1/2 the class) at one time. Total faculty laboratory time; 4 hours.

Canine Reproduction labs will also remain the same as in VLAC 470. One lab session, 2 hours in duration, offered to 40 students (1/2 the class) at one time. Total faculty laboratory time; 4 hours.

4. Rationale for introducing this course.

Simplicity and efficiency are the key rationale for introducing this course: The VLAC 470 course has been a 4 credit course taught over 3 quarters. Students find the course to be onerous largely because of the volume of material that is taught, the large number of labs, and the duration of the course. There is a midterm, but the final exam is cumulative and months elapse between the beginning of the course and the final exam. Such a large course has also been problematic for scheduling faculty.

The new course, Companion Animal heriogenology, will simply carry on the multi-species teaching of theriogenology and reproductive management previously taught in VLAC 470, in the absence of the food animal species. Efficiencies will be realized through fewer faculty hours spent organizing the course, fewer faculty hours spent standing in the lab as groups of students switch between horses and cows, more efficient use of student time – no more moving back and forth between labs.

5. Learning Objectives for this course.

- 1) To provide students with an understanding of normal reproductive management of horses, small ruminants, pigs, camelids, dogs and cats.
- 2) To develop a level of knowledge regarding the diagnosis, treatment and prevention of common reproductive disorders limiting reproductive performance in males and females of the above listed species suitable for entry into veterinary practice.
- 3) To develop transrectal palpation skills in the mare, and breeding management, breeding soundness evaluation and semen assessment skills, in the equine and canine species.

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?

VLAC 470 Reproduction and Obstetrics "Theriogenology"; this new course will reduce the volume of material taught in the VLAC 470 course by approximately 50%.

Course(s) for which this course will be a prerequisite?

VTINT 580 Theriogenology Rotation, VTINT 580 Field Service – Bovine

This will be a core course.

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

No, this course is intended for DVM students only.

8. Course Outline

Laboratories:

Mare Palpation Labs (1/4 Class) 6 x 60 minutes

Objective: Discuss and perform transrectal palpation of the reproductive tract of the mare. Interpret findings as they relate to the estrus cycle.

Stallion Collection Labs (1/2 Class) Minutes: 120

Objective: Demonstrate and discuss the stallion breeding soundness examination, semen collection, and semen evaluation.

Canine Reproduction Labs (1/2 Class) Minutes: 120

Objective: Describe the technique for and practice vaginal cytology sampling, preparation, and interpretation. Explain how to collect a male dog and perform semen analysis.

Lectures:

Equine 1: Intro to Reproductive Physiology of the Mare

Objective: Explain reproductive physiology of the mare, including the estrus cycle and seasonality.

Equine 2: Reproductive Management of the Mare

Objective: Describe reasons for and methods of manipulating seasonality and cyclicity of the mare, with a focus on estrus synchronization and induction of ovulation.

Equine 3: Reproductive Management of the Broodmare

Objective: Describe the indications for and the methods of performing superovulation in the mare.

Describe embryo transfer techniques. Describe modification of sexual behaviour for breeding purposes. Explain how lactation is induced artificially. Describe hormonal management of high-risk pregnancies. Discuss breeding management, including the use of ultrasonography.

Equine 4: Endometritis and the Problem Breeding Mare 1

Objective: Define endometritis and recognize its significance. Describe predisposing factors, differentiate between physiologic and non-physiologic, and outline the pathophysiology of non-physiologic endometritis.

Equine 5: Endometritis and the Problem Breeding Mare 2

Objective: Describe the diagnosis and treatment of endometritis. Discuss breeding management strategies to prevent or eliminate endometritis in the problem mare and achieve pregnancy.

Equine 6: Pregnancy

Objective: Describe maternal recognition and maintenance of pregnancy, and diagnosis of pregnancy (palpation, ultrasound, and endocrine testing).

Equine 7: Mare BSE

Objective: Explain the objectives and indications for a BSE (Breeding Soundness Examination). Describe the components of a BSE.

Equine 8: Assisted Reproductive Technology

Objective: Explain the use of ART in the broodmare, with a focus on artificial insemination, embryo transfer, and low dose insemination techniques.

Equine 9: Reproductive physiology, Endocrinology, and Breeding Soundness Exam of the Stallion
Objective: Describe the reproductive anatomy, physiology, and endocrinology of the stallion, with an emphasis on clinical aspects.

Equine 10: Reproductive Problems of Stallions

Objective: List the metrics and measurements of fertility. Discuss differentials for fertility problems in stallions. Describe the common, fertility conditions, injuries, and neoplasms of the male equine reproductive system, and identify the etiology, diagnosis, treatment, and prognosis of these conditions.

Equine 11: Infectious Abortion

Objective: Identify the common causes, clinical signs, and gross / histologic lesions of infectious abortion in mares. Explain the rationale for treatment and prevention of abortion in mares.

Equine 12: Non-infectious Abortion

Objective: Identify the common causes, clinical signs, and gross / histologic lesions of non-infectious abortion in mares. Explain the rationale for treatment and prevention of abortion in mares.

Equine 13: Induction of Parturition and Abortion

Objective: Identify the indications, criteria, and methods for the induction of parturition in the mare. Describe the benefits and risks of the procedure. Identify the indications, criteria, and methods for the induction of abortion in the mare. Describe the benefits and risks of the procedure.

Equine 14: Disease Ecology of EHV-1 in a Breeding Farm

Objective: Discuss the transmission of Equine Herpes Virus-1 using a disease ecology model. Identify the discrepancy between experimental models and real-life disease scenarios (eg. the role of behavior and routine interactions). Recognize the risk of cross-species infection. Describe how to manage an outbreak in varying situations (single and multiple species).

Equine 15: Case Application

Objective: Apply concepts covered in previous lectures to a selection of real equine theriogenology cases, with an emphasis on clinical decision-making and evidence-based medicine.

Camelid Reproduction 1

Objective: Outline puberty in camelids, describe the reproductive anatomy and physiology in the male and female. Discuss breeding management and behaviour. Discuss pregnancy and its diagnosis. Describe the signs and stages of parturition. Discuss causes and management of dystocia.

Canine/Feline 1

Objective: Examine small animal population dynamics and the social determinants of animal health

Canine/Feline 2: Canine Reproduction 1

Objective: Define and describe superfetation, superfecundation, puberty, and the estrous cycle and its stages in the dog. Explain the mating process in dogs.

Canine/Feline 3: Canine Reproduction 2

Objective: Describe ovulation including unique characteristics in the dog, and describe methods for determining the ovulation period with a focus on vaginal cytology, as well as LH and serum progesterone. Discuss breeding management and breeding problems (with a focus on vaginal culture indications and technique).

Canine/Feline 4: Canine Reproduction 3

Objective: Describe a canine breeding soundness exam and discuss techniques for semen collection. Recognize the fractions of canine semen. Identify common reproductive problems in the male dog.

Canine/Feline 5: Pregnancy

Objective: Describe salient features of canine and feline pregnancy. Recall gestation period. Identify methods of pregnancy diagnosis (radiology, palpation, ultrasonography, Relaxin concentration). Discuss signs of parturition, whelping management, and puppy care. Discuss C-sections, their timing, and indications.

Canine/Feline 6: Disorders of the Post-parturient Bitch

Objective: Recognize the stages of parturition. Outline canine dystocia and obstetrics. Describe normal post-parturient physiology. Describe the risk factors, signs, diagnosis, and treatment of retained placentas, subinvolution of the uterus, acute metritis, uterine prolapse, subinvolution of placental sites, lactation problems, eclampsia, mastitis, and mammary tumors.

Canine/Feline 7: Control of Estrus and Reproductive Problems (Female)

Objective: Discuss induction and prevention of estrus. Describe the risk factors, pathophysiology, clinical signs, diagnosis and differentials, treatment and prognosis of cystic endometrial hyperplasia, ovarian cysts, granulosa cell tumors, ovarian remnant syndrome, and pyometra.

Canine/Feline 8: Canine Embryonic and Fetal Loss

Objective: Identify and describe the common causes of embryonic and fetal loss in the dog.

Canine/Feline 9: Feline Reproduction

Objective: Define and describe puberty, the estrous cycle and its stages in the cat. Explain the mating process in cats. Describe ovulation including unique characteristics in the cat, and describe methods for determining the ovulation period with a focus on vaginal cytology. Identify common feline reproductive problems.

9. Enrolment.

Expected enrollment:

All 3rd year students in the DVM program.

From which colleges?

WCVU only.

10. Student evaluation.

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

Mid-term – 30%; Laboratory – 20%; Final – 50%.

11. Required text:

No required text

Attach a bibliography for the course.

Interested students are encouraged to purchase:

Equine Reproduction, 2nd Edition. McKinnon, Squires, Vaala, Varner eds.

Canine and Feline Theriogenology. Johnston, Root Kustritz and Olson eds.

12. Resources.

Proposed instructor:

Dr. Manning (course coordinator), Dr. Card, Dr. De Amorim. It is expected that an equine theriogenology resident or intern will help out with the palpation lab.

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

There will be no additional teaching over what already exists in the VLAC 470 course. There will be a new course with a new exam; however, it is not expected that administrative time will be greater.

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

The library will be asked to purchase the two recommended texts to be held on reserve.

Are any additional resources required (library, audio-visual, technology, etc.)?

Audiovisual aids and ultrasound machines currently used in the VLAC 470 labs as well as space in the Reproduction Centre will be needed for labs.

13. Date of Implementation: 2015-2016 Academic Year

To be offered: ☒_X_ annually ☐__biennially ☐__other

Weekly Outline of Lectures

Week 1 – Equine Female – Lecture 1, 2, 3
Week 2 – Equine female – Lectures 4, 5, 6
Week 3 – Equine female – Lecture 7, 8, 9
Week 4 – Equine female – Lecture 10, 11, 12
Week 5 – Equine male – Lecture 13, 14, 15

Week 5 – Midterm Exam

Week 6 – Camelid - Lecture 16. Small Ruminant - Lecture 17, 18
Week 7 – Porcine – Lecture 19, 20, 21
Week 8 – Canine – Lecture 22, 23, 24
Week 9 – Canine - Lecture 25, 26, 27
Week 10 – Canine – Lecture 28, 29. Feline – Lecture 30

31 hours total counting midterm

Final Exam

Reproductive Management Labs

Mare Palpation - 24, 1 hour time periods to be shared equally with ½ of the class each time

Stallion Breeding Soundness Exam – 2, 2 hour time periods shared equally with ½ of the class at a time

Canine Reproductive Management – 2, 2 hour lab periods to be shared with ½ of the class at a time.

Appendix A.

Bovine/ Equine Palpation at Other Canadian Veterinary Colleges

University of Montreal Faculté de Médecine Vétérinaire Saint-Hyacinthe

5-year DMV program

Equine palpation– 4 hours in the third year; elective

Equine – 15 lecture-hour Equine Theriogenology course in the 4th year (elective)

Additional experience may be acquired on 2 week Theriogenology rotations in the 5th year and on similar

The theriogenology section is divided along bovine – equine species lines.

Atlantic Veterinary College

4-year DVM program

Bovine/Equine palpation – 4 hours (total between two species) in the third year; core. Most of the time is spent with Bovine.

Equine Theriogenology Elective – Approximately 3 hours of palpation.

Stallion Labs: No information available

University of Calgary Faculty of Veterinary Medicine

4-year DVM program

Theriogenology Lectures: 6 hours per species in core curriculum; equine, bovine dairy and beef (9 hours total), small animal/pocket pets, small ruminant, porcine, camelidae

Mare palpation – 2 x 1.5 hour labs in core curriculum (plus 2 x 1.5 hour “other” equine reproduction labs)

Stallion Labs – Not available

An elective course in Equine Reproductive Management is in the planning stages.

Consultation with the Registrar Form
(New Programs and New Majors / Minors / Concentrations)

Title: Doctor of Veterinary Medicine (DVM) Program Changes (Course Split)

This form is to be completed by the Registrar (or his/her designate) during an in-person consultation with the faculty member responsible for the proposal. Please consider the questions on this form prior to the meeting.

Section 1: New Degree / Diploma / Certificate Information or Renaming of Existing

- 1 Is this a new degree, diploma, or certificate?
Is an existing degree, diploma, or certificate being renamed?
If you've answered NO to each of the previous two questions, please continue on to the next section.

Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>

- 2 What is the name of the new degree, diploma, or certificate?

- 3 If you have renamed an existing degree, diploma, or certificate, what is the current name?

- 4 Does this new or renamed degree / diploma / certificate require completion of degree level courses or non-degree level courses, thus implying the attainment of either a degree level or non-degree level standard of achievement?

- 5 What is your suggested credential abbreviation for this new or renamed degree, diploma, or certificate (please consult with Academic Services)? What is the Banner code for this new or renamed degree, diploma, or certificate?

- 6 Which College is responsible for the awarding of this degree, diploma, or certificate?

- 7 Is there more than one program to fulfill the requirements for this degree, diploma, or certificate? If yes, please list these programs.

- 8 Are there any new majors, minors, or concentrations associated with this new degree / diploma / certificate? Please list the name(s) and whether it is a major, minor, or concentration, along with the sponsoring department.

[One major is required on all programs [4 characters for code and 30 characters for description]

- 9 If this is a new graduate degree, is it thesis-based, course-based, or project-based?

Section 2: New Program for Existing or New Degree / Diploma / Certificate Information

Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>

- 1 Is this a new program?
Is an existing program being revised?
If you've answered NO to each of the previous two questions, please continue on to the next section.

- 2 If YES, what degree, diploma, or certificate does this new/revised program meet requirements for?

[DVM [Doctor of Veterinary Medicine]]

- 3 What is the name of this new program?

- 4 What other program(s) currently exist that will also meet the requirements for this same degree(s)?

- 5 What College/Department is the academic authority for this program?

- 6 Is this a replacement for a current program?

- 7 If YES, will students in the current program complete that program or be grandfathered?

- 8 If this is a new graduate program, is it thesis-based, course-based, or project-based?

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Section 3: New / Revised Major, Minor, or Concentration for Existing Degree Information (Undergraduate)

Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Revised	<input type="checkbox"/>
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- 1 Is this a new or revised major, minor, or concentration attached to an existing degree program?

If you've answered NO, please continue on to the next section.

- 2 If YES, please specify whether it is a major, minor, or concentration. If it is more than one, please fill out a separate form for each.

- 3 What is the name of this new / revised major, minor, or concentration?

- 4 Which department is the authority for this major, minor, or concentration? If this is a cross-College relationship, please state the Jurisdictional College and the Adopting College.

- 5 Which current program(s), degree(s), and/or program type(s) is this new / revised major, minor, or concentration attached to?

Section 4: New / Revised Disciplinary Area for Existing Degree Information (Graduate)

1 Is this a new or revised disciplinary area attached to an existing graduate degree program?
If you've answered NO, please continue on to the next section.

2 If YES, what is the name of this new / revised disciplinary area?

3 Which Department / School is the authority for this new / revised disciplinary area?

4 Which current program(s) and / or degree(s) is this new / revised disciplinary area attached to?

Section 5: New College / School / Center / Department or Renaming of Existing

1 Is this a new college, school, center, or department?

Is an existing college, school, center, or department being renamed?

If you've answered NO to each of the previous two questions, please continue on to the next section.

2 What is the name of the new (or renamed) college, school, center, or department?

3 If you have renamed an existing college, school, center, or department, what is the current name?

4 What is the effective term of this new (renamed) college, school, center, or department?

5 Will any programs be created, changed, or moved to a new authority, removed, relabelled?

6 Will any courses be created, changed, or moved to a new authority, removed, relabelled?

7 Are there any ceremonial consequences for Convocation (ie. New degree hood, adjustment to parchments, etc.)?

Section 6: Course Information

Yes ☐ No ☒ Revised ☐

Yes ☐ No ☒
Yes ☐ No ☒

1 Is there a new subject area(s) of course offering proposed for this new degree? If so, what is the subject area(s) and the suggested four (4) character abbreviation(s) to be used in course listings?

No ☐

2

If there is a new subject area(s) of offerings what College / Department is the academic authority for this new subject area?

3 Have the subject area identifier and course number(s) for new and revised courses been cleared by the Registrar?

Yes ☐ No ☐

4 Does the program timetable use standard class time slots, terms, and sessions?

If NO, please describe.

NOTE: Please remember to submit a new "Course Creation Form" for every new course required for this new program / major. Attached completed "Course Creation Forms" to this document would be helpful.

Section 7: Admissions, Recruitment, and Quota Information

1 Will students apply on-line? If not, how will they apply?

As per current set-up

2 What term(s) can students be admitted to?

3 Does this impact enrollment?

4 How should Marketing and Student Recruitment handle initial inquiries about this proposal before official approval?

5 Can classes towards this program be taken at the same time as another program?

6 What is the application deadline?

7 What are the admission qualifications? (IE. High school transcript required, grade 12 standing, minimum average, any required courses, etc.)

8 What is the selection criteria? (IE. If only average then 100% weighting; if other factors such as interview, essay, etc. what is the weighting of each of these in the admission decision.)

9 What are the admission categories and admit types? (I.E. High school students and transfer students or one group? Special admission? Aboriginal equity program?)

10 What is the application process? (I.E. Online application and supplemental information (required checklist items) through the Admissions Office or sent to the College/Department?)

11 Who makes the admission decision? (I.E. Admissions Office or College/Department/Other?)

12 Letter of acceptance - are there any special requirements for communication to newly admitted students?

Section 8: Tuition and Student Fees Information

1 How will tuition be assessed?

Per Course	
Per Credit Unit	
Program Based	X
Standard Term	
Other *	
Current Set-Up	X

2 If fees are per credit, do they conform to existing categories for per credit tuition? If YES, what category?

3 If program-based, will students outside the program be allowed to take the classes?

4 If YES, what should the per credit fee be?

5 Do standard student fee assessment criteria apply (full-time, part-time, on-campus versus off-campus)?

6 Do standard cancellation fee rules apply?

7 Are there any additional fees (e.g. materials, excursion)?

Has IPA Been Consulted? Yes

* See attached documents

NOTE: VLAC 470 has TC51 [ME DE PT & VM Program Fee] - new courses should have this same TC code

Section 9: Government Loan Information

NOTE: Federal / provincial government loan programs require students to be full-time in order to be eligible for funding. The University of Saskatchewan defines full-time as enrollment in a minimum of 9 credit units (operational) in the fall and/or winter term(s) depending on the length of the loan.

1 If this is a change to an existing program, will the program change have any impact on student loan eligibility?

No

2 If this is a new program, do you intend that students be eligible for student loans?

Section 10: Convocation Information (only for new degrees)

1 Are there any 'ceremonial consequences' of this proposal (ie. New degree hood, special convocation, etc.)?

2 If YES, has the Office of the University Secretary been notified?

3 When is the first class expected to graduate?

4 What is the maximum number of students you anticipate/project will graduate per year (please consider the next 5-10 years)?

Section 11: Schedule of Implementation Information

1 What is the start term?

201609

2 Are students required to do anything prior to the above date?

If YES, what and by what date?

Yes

No

X

Section 12: Registration Information

1 Will students register themselves?
If YES, what priority group should they be in?
As per current set-up

Yes ☒ No ☐

Section 13: Academic History Information

1 Will instructors submit grades through self-serve?
2 Who will approve grades (Department Head, Assistant Dean, etc.)?
As per current set-up

Yes ☒ No ☐

Section 14: T2202 Information (tax form)

1 Should classes count towards T2202s?

Yes ☒ No ☐

Section 15: Awards Information

1 Will terms of reference for existing awards need to be amended?
2 If this is a new undergraduate program, will students in this program be eligible for College-specific awards?

Yes ☐ No ☒

Section 16: Program Termination

1 Is this a program termination?
If yes, what is the name of the program?

Yes ☐ No ☒

2 What is the effective date of this termination?

3 Will there be any courses closed as a result of this termination?

If yes, what courses?

Yes ☐ No ☐

4 Are there currently any students enrolled in the program?

If yes, will they be able to complete the program?

Yes ☐ No ☐

5 If not, what alternate arrangements are being made for these students?

6 When do you expect the last student to complete this program?

Section 17: SEDD - Information Dissemination (internal for SEDD use only)

- 1 Has SEDD, Marketing and Student Recruitment, been informed about this new / revised program?

2 Has SEDD, Admissions, been informed about this new / revised program?

3 Has CGSR been informed about this new / revised program?

4 Has SEDD, Transfer Credit, been informed about any new / revised courses?

5 Has ICT-Data Services been informed about this new or revised degree / program / major / minor / concentration?

6 Has the Library been informed about this new / revised program?

7 Has ISA been informed of the CIP code for new degree / program / major?

Yes		No	
Yes		No	
Yes		No	
Yes		No	
Yes		No	
Yes		No	
Yes		No	

SIGNED

Date: 16 Sept 2015

for Registrar (Russell Isinger):

Yuan Dooly

College / Department Representative:

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: Large Animal Clinical Science _____ College of: Western College of Veterinary Medicine
2. Signature of department head or dean: _____
3. Information required for the Calendar:

3.1 Label & Number of course: VLAC 471.3

3.2 Title of course: Food Animal Reproductive Management (FARM)

3.3 Total Hours: Lecture 35 Seminar Lab 16/ student Tutorial Other

3.4 Weekly Hours: Lecture Seminar Lab Tutorial Other

3.5 Term in which it will be offered: __T1, __T2 , __T1 or T2, X__T1 and T2

3.6 Prerequisite: Completion of the second year of the DVM program.

3.7 Calendar description:

This course is designed to enhance the students' knowledge of normal reproductive patterns of sheep, goats, swine and cattle and to foster a greater understanding of modern assisted reproductive technologies and to develop a level of knowledge regarding the diagnosis and management of reproductive problems suitable for those entering clinical practice.

3.8 Any additional notes

Labs – each student will receive 10 hours of instruction in bovine palpation. This may appear to be a reduction in hours compared to 15 hours per student in the VLAC 470 course; however, 10 hours of lab time were shared equally with equine palpation and students switched species after 30 minutes. To accomplish this, the class will be split in two such that 40 students attend the palpation lab at a time. This will require 20 hours of instructor time. Our hours of core bovine palpation remain higher than the other Canadian schools (See Appendix A).

4. Rationale for introducing this course.

Simplicity and efficiency are the key rationale for introducing this course: The VLAC 470 course has been a 4 credit course taught over 3 quarters. Students find the course to be onerous largely because of the volume of material that is taught, the large number of labs, and the duration of the course. There is a midterm, but the final exam is cumulative and months elapse between the beginning of the course and the final exam. Such a large course has also been problematic for scheduling faculty.

The new course, Food Animal Reproductive Management, will simply remove all of the food animal material taught in the VLAC 470 course, which constituted 36 of 60 lectures (plus one for the midterm = 61) and 24 of 30 lab hours, and put it in a tidy package in a new course. Efficiencies will be realized through fewer faculty hours spent organizing the course, fewer faculty hours spent standing in the lab as groups of students switch between horses and cows, fewer lab periods, fewer tech and staff hours bringing cattle into the barn, less cleanup time for everyone; and more efficient use of student time – no more moving back and forth between labs, the ability to study bovine reproduction as a complete module without being confused by material concerning other species.

In the VLAC 470 course, obstetrics labs were delivered 4 times to ¼ of the class each time; bull labs utilized 4 to 5 bulls and electroejaculation was demonstrated and students spent time learning to evaluate semen smears. Classes were split into quarters and each bull lab required 2, 3 hour sessions per student; 24 hours of faculty time.

A stand-alone course in bovine reproduction fits in well with the Large Animal Clinical Sciences' departmental plan to divide the delivery of clinical service along species lines verses traditional specialty lines.

5. Learning Objectives for this course.

- 1) To provide students with an understanding of normal reproductive management of food animals and to provide them with the ability to institute estrus cycle and ovulation manipulation programs, understand embryo transfer and provide skilled and knowledgeable assistance with dystocias.
- 2) To develop a level of knowledge regarding the diagnosis, treatment and prevention of common reproductive disorders limiting reproductive performance in the most prevalent male and female food animals (small ruminants, swine, and Cattle) suitable for entry into veterinary practice.
- 3) To develop transrectal palpation and ultrasonography skills, obstetrical manipulation techniques, and breeding soundness evaluation and semen assessment skills.

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?

VLAC 470 Reproduction and Obstetrics "Theriogenology"; this new course will reduce the volume of material taught in the VLAC 470 course by over half.

Course(s) for which this course will be a prerequisite?

VTINT 580 Theriogenology Rotation, VTINT 580 Field Service – Bovine

This will be a core course.

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

No, this course is intended for DVM students only.

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

9. Enrolment.
Expected enrollment:
All 3rd year students in the DVM program.

From which colleges?

WCVM only.

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

Mid-term – 30%; Laboratory – 20%; Final – 50%.

11. Required text:

No required text

Attach a bibliography for the course.

Interested students are encouraged to purchase:

Bovine Reproduction, 2015, Hopper RM ed., John Wiley and Sons, Ames, Iowa, USA.

12. Resources.
Proposed instructor:

Dr. Palmer (course coordinator); one an additional bovine theriogenologist (lectures). Dr. Luby has helped to teach the bovine palpation lab in the VLAC 470 course. It is expected that the theriogenology resident will help out with the palpation lab.

Dr. Harding (sabbatical leave) will be invited to teach the swine reproduction lectures.

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

There will be no additional teaching over what already exists in the VLAC 470 course. There will be a new course with a new exam; however, it is not expected that administrative time will be greater.

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

The library will be asked to purchase copies of Hopper's Bovine Reproduction to be held on reserve.

Are any additional resources required (library, audio-visual, technology, etc.)?

Audiovisual aids and ultrasound machines currently used in the VLAC 470 labs as well as space in the Bovine Teaching Unit will be needed for labs.

13. Date of Implementation: 2015-2016 Academic Year

To be offered: ☒_X_annually ☐__biennially ☐__other

Weekly Outline of Lectures

Week 1 – Reproductive physiology review – Lecture 1; Bovine Female – Lectures 2 & 3

Week 2 – Bovine female – Lectures 4, 5, 6

Week 3 – Bovine female – Lecture 7, 8, 9

Week 4 – Bovine female – Lecture 10, 11, 12

Week 5 – Bovine Female – Lecture 13, 14

Week 5 – Midterm Exam

Week 6 – Bull Fertility/ Reproductive problems/ Semen Analysis 1, 2, 3

Week 7 – Bull Fertility/ reproductive problems/ Semen Analysis 4,5,6

Week 8 – Pregnancy Loss/ Parturition/ OB 1, 2, 3

Week 9 – Pregnancy Loss/ Parturition/ OB 4,5,6

Week 10 – Pregnancy Loss/ Parturition/ OB 7,8

29 hours total counting midterm

Final Exam

Bovine Reproductive Management Labs

Palpation - 20, 1 hour time periods to be shared equally with ½ of the class each time

Obstetrics – 2, 3 hour time periods shared equally with ½ of the class each time

Semen Evaluation – 2, 3 hour lab periods to be shared with ½ of the class at a time. There will be no electroejaculation or scrotal circumference measurement of bulls in the 3rd year lab.

Appendix A.

Bovine/ Equine Palpation at Other Canadian Veterinary Colleges

University of Montreal Faculté de Médecine Vétérinaire Saint-Hyacinthe

Source – Dr. Réjean Lefebvre

5-year DMV program

Bovine – 4 hours in the third year; elective

Equine – 4 hours in the third year; elective

Bovine – 2 hours of palpation lab for students taking the 30 lecture-hour Large Animal Theriogenology course in the 4th year (elective)

Bovine – 2 hours of palpation lab for students taking the 15 lecture-hour Bovine Theriogenology course in the 4th year (elective)

Equine – 15 lecture-hour Equine Theriogenology course in the 4th year (elective)

Additional experience may be acquired on 2 week Theriogenology rotations in the 5th year and on similar 2 week bovine ambulatory rotations.

The theriogenology section is divided along bovine – equine species lines.

Atlantic Veterinary College

Source – Dr. Rob Löfstedt

4-year DVM program

Bovine/ Equine – 4 hours in the third year; core. Most of the time is spent with Bovine.

Bovine and Equine Theriogenology Electives – Approximately 3 hours of palpation with the respective species.

Ontario Veterinary College

Source – Dr. Tracey Chenier

4-year DVM program

Bovine – 6 hours per student in the second year; elective

Equine – 1 hour per student in the second year; elective. Some students are able to attend an additional lab period.

Students are able to gain more palpation experience in the final year Equine Medicine and Equine Surgery rotations, Therio Rotations and Ruminant Field Service Rotations.

University of Calgary Faculty of Veterinary Medicine

No response