TRIAL COURSE OR NEW COURSE PROPOSAL

SUBMITTED BY:

<table>
<thead>
<tr>
<th>Department</th>
<th>Veterinary Medicine</th>
<th>College/School</th>
<th>CNSM</th>
</tr>
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<tbody>
<tr>
<td>Prepared by</td>
<td>Janice Rowell</td>
<td>Phone</td>
<td>474-1928</td>
</tr>
<tr>
<td>Email Contact</td>
<td><a href="mailto:jerowell@alaska.edu">jerowell@alaska.edu</a></td>
<td>Faculty Contact</td>
<td>Janice Rowell</td>
</tr>
</tbody>
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1. ACTION DESIRED
   (CHECK ONE):
   - Trial Course
   - New Course X

2. COURSE IDENTIFICATION:
   - Dept: DVM
   - Course #: 744
   - No. of Credits: 3
   Justify upper/lower division status & number of credits: Professional Program required course – see syllabus attached

3. PROPOSED COURSE TITLE:
   - Theriogenology

4. To be CROSS LISTED?
   - YES/NO NO
   If yes, Dept: 
   Course #: 
   NOTE: Cross-listing requires approval of both departments and deans involved. Add lines at end of form for additional required signatures.

5. To be STACKED?
   - YES/NO NO
   If yes, Dept. 
   Course #: 
   How will the two course levels differ from each other? How will each be taught at the appropriate level:
   Stacked course applications are reviewed by the (Undergraduate) Curricular Review Committee and by the Graduate Academic and Advising Committee. Creating two different syllabi—undergraduate and graduate versions—will help emphasize the different qualities of what are supposed to be two different courses. The committees will determine: 1) whether the two versions are sufficiently different (i.e., is there undergraduate and graduate level content being offered); 2) are undergraduates being overtaxed? 3) are graduate students being undertaxed? In this context, the committees are looking out for the interests of the students taking the course. Typically, if either committee has qualms, they both do. More info online – see URL at top of this page.

6. FREQUENCY OF OFFERING:
   - Spring each year beginning 2017
   - Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) — or As Demand Warrants

7. SEMESTER & YEAR OF FIRST OFFERING (AY2013-14 if approved by 3/1/2013; otherwise AY2014-15)
   - AY2016-2017

8. COURSE FORMAT:
   NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school’s curriculum council. Furthermore, any core course compressed to less than six weeks must be approved by the Core Review Committee.
   COURSE FORMAT:
   (check all that apply)
   - [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [x] 6 weeks to full semester
   OTHER FORMAT (specify)
   Mode of delivery (specify lecture, field trips, labs, etc)
9. CONTACT HOURS PER WEEK:

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<th>PRACTICUM</th>
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<tr>
<td>LECTURE</td>
<td>hours/weeks</td>
<td>LAB</td>
<td>hours/week</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>hours/week</td>
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Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See: http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/guidelines-for-computing/ for more information on number of credits.

OTHER HOURS (specify type) Plus 1 hr independent student work on components introduced in the lab. As per minimum requirements for an academic unit of credit: Faculty Senate Motion Meeting #206 – "1600 minutes of laboratory (or studio or other similar activity) plus 800 minutes of student work outside of class" 2015-2016 UAF catalog.

10. COMPLETE CATALOG DESCRIPTION including dept., number, title, credits, credit distribution, cross-listings and/or stacking (50 words or less if possible):

Example of a complete description:

FISH F487 W, O Fisheries Management
3 Credits Offered Spring
Theory and practice of fisheries management, with an emphasis on strategies utilized for the management of freshwater and marine fisheries. Prerequisites: COMM F131X or COMM F141X; ENGL F111X; ENGL F211X or ENGL F213X; ENGL F414; FISH F425; or permission of instructor. Cross-listed with NRM F487. (3+0)

DVM 744 Department of Veterinary Medicine
3 Credit Offered Spring
Theriogenology
DVM 744 will familiarize students with reproductive organs of large and small animals: regulation of function, reproductive endocrinology, reproductive cycles and the physiology and pathology of reproduction.

Pre-requisites: Satisfactory Completion of year 1 and Good standing in Professional Veterinary Program

11. COURSE CLASSIFICATIONS: Undergraduate courses only. Consult with CLA Curriculum Council to apply S or H classification appropriately; otherwise leave fields blank.

H = Humanities

Will this course be used to fulfill a requirement for the baccalaureate core? IF YES, attach form.

YES: NO:

IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, Format 6 W = Writing Intensive, Format 7 X = Baccalaureate Core

11.A Is course content related to northern, arctic or circumpolar studies? If yes, a "snowflake" symbol will be added in the printed Catalog, and flagged in Banner.

YES NO X

12. COURSE REPEATABILITY:

Is this course repeatable for credit? YES NO X

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit?

TIMES

If the course can be repeated for credit, what is the maximum number of credit hours that may be earned for this course?

CREDITS

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?

CREDITS

13. GRADING SYSTEM: Specify only one. Note: Changing the grading system for a course later on constitutes a Major Course Change – Format 2 form.

LETTER: PASS/FAIL: X
**RESTRICTIONS ON ENROLLMENT (if any)**

**14. PREREQUISITES**

| Satisfactory Completion of year 1 and Good standing in Professional Veterinary Program |

These will be required before the student is allowed to enroll in the course.

**15. SPECIAL RESTRICTIONS, CONDITIONS**

| None |

**16. PROPOSED COURSE FEES**

| $150 |

| Has a memo been submitted through your dean to the Provost for fee approval? |

| Yes/No |

| Yes |

**17. PREVIOUS HISTORY**

| Has the course been offered as special topics or trial course previously? |

| Yes/No |

| No |

If yes, give semester, year, course #, etc.:  

**18. ESTIMATED IMPACT**

**WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.**

Professional Program approved by BOR, Chancellor and Provost – Impact to budget in second year will ease with second cohort of students

**19. LIBRARY COLLECTIONS**

Have you contacted the library collection development officer (kljensen@alaska.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.

| No | x | Yes |

Copies of recommended text (2-3) will be held on a reserve basis in the Vet Med Department where they are readily accessible to the student study area and labs. The library has additional resource material in both their book and journal collections.

**20. IMPACTS ON PROGRAMS/DEPTS**

| What programs/departments will be affected by this proposed action? |

| Include information on the Programs/Departments contacted (e.g., email, memo) |

Impact on Animal Resource Center facility for necropsy and specialized needs. ARC contacted and approved (jeblake@alaska.edu)

**21. POSITIVE AND NEGATIVE IMPACTS**

| Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action. |

There may be an impact on SNRE, as Dr. Jan Rowell is the course coordinator and will be teaching some lectures. The department has been working closely with SNRE (Dr. Schult), so impact will be minimal.

**JUSTIFICATION FOR ACTION REQUESTED**

The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

The course is required for second year veterinary students and the syllabus is provided by CSU CVMBS. The course has been approved by their accreditation requirements and will be offered at UAF as part of the 2+2 program (first two years at UAF and last two years at CSU).
APPROVALS: Add additional signature lines as needed.

Signature, Chair, Program/Department of: Veterinary Medicine  Date 11-8-15

Signature, Chair, College/School Curriculum Council for: CNSM  Date 11-11-15

Signature, Dean, College/School of: CNSM  Date 12/15/15

Offerings above the level of approved programs must be approved in advance by the Provost.

Signature of Provost (if above level of approved programs)  Date

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE

Signature, Chair  Date

Faculty Senate Review Committee: _Curriculum Review  ___GAAC
  ___Core Review  ___SADAC

ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)

Signature, Chair, Program/Department of:  Date

Signature, Chair, College/School Curriculum Council for:  Date

Signature, Dean, College/School of:  Date

ATTACH COMPLETE SYLLABUS (as part of this application). This list is online at:
http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/-uaf-syllabus-requirements/
The Faculty Senate curriculum committees will review the syllabus to ensure that each of
the items listed below are included. If items are missing or unclear, the proposed course
(or changes to it) may be denied.

SYLLABUS CHECKLIST FOR ALL UAF COURSES
During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout
the semester, this document will contain the following information (as applicable to the discipline):

1. Course information:
   - Title, number, credits, prerequisites, location, meeting time
   (make sure that contact hours are in line with credits).

2. Instructor (and if applicable, Teaching Assistant) information:
   - Name, office location, office hours, telephone, email address.

3. Course readings/materials:
   - Course textbook title, author, edition/publisher.
   - Supplementary readings (indicate whether required or recommended) and
   - any supplies required.
4. Course description:
   - Content of the course and how it fits into the broader curriculum;
   - Expected proficiencies required to undertake the course, if applicable.
   - Inclusion of catalog description is strongly recommended, and
   - Description in syllabus must be consistent with catalog course description.

5. Course Goals (general), and (see #6)

6. Student Learning Outcomes (more specific)

7. Instructional methods:
   - Describe the teaching techniques (e.g., lecture, case study, small group discussion, private instruction, studio instruction, values clarification, games, journal writing, use of Blackboard, audio/video conferencing, etc.).

8. Course calendar:
   - A schedule of class topics and assignments must be included. Be specific so that it is clear that the instructor has thought this through and will not be making it up on the fly (e.g., it is not adequate to say “lab”. Instead, give each lab a title that describes its content). You may call the outline Tentative or Work in Progress to allow for modifications during the semester.

9. Course policies:
   - Specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and plagiarism/academic integrity.

10. Evaluation:
    - Specify how students will be evaluated, what factors will be included, their relative value, and how they will be tabulated into grades (on a curve, absolute scores, etc.).
    - Publicize UAF regulations with regard to the grades of "C" and below as applicable to this course. (Not required in the syllabus, but is a convenient way to publicize this.) Link to PDF summary of grading policy for “C”:

11. Support Services:
    - Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

12. Disabilities Services: Note that the phone# and location have been updated. [http://www.uaf.edu/disability/](http://www.uaf.edu/disability/). The Office of Disability Services implements the Americans with Disabilities Act (ADA), and ensures that UAF students have equal access to the campus and course materials.
    - State that you will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655) to provide reasonable accommodation to students with disabilities.

5/21/2013
DVM 744 THERIOGENOLOGY
SYLLABUS – Spring Year 2

Department of Veterinary Medicine, University of Alaska Fairbanks

1. Course Information:
   Title:       Theriogenology
   Number:     DVM 744
   Credit:     3
   Prerequisites:  Successful Completion of Year 1 and good standing in the Veterinary Medical Program
   Location:   Dept Vet Med Irv 144
   Meeting time:  Tue 10:00 -12:00 Lab
                  Wed 12:00 – 1:00 Lecture
                  Fri 12:00 – 1:00 Lecture

2. Instructor Contact Information:
   Department of Veterinary Medicine contact: Dr. Arleigh Reynolds
   Course Coordinator: Dr. Janice Rowell
   Office Location:  360 O’Neill Bldg
   Office Hours: By appointment
   Office Phone: 474-6009
   Email: jerowell@alaska.edu

Email is the best way to reach the instructor. You should receive a response within 24 hours.

3. Course Reading/Materials:
   None required. The following books are recommended:

Copies (2-3) of all 5 books will be held on a reserve basis in the Vet Med Department.
This will ensure the books are readily available to study and lab settings. In addition, the library currently
contains over 66 books on Domestic Animal Reproduction and a host of related journals including the top 4
in this discipline.

4. Course Description:
   DVM 744 will familiarize students with reproductive organs of large and small animals: regulation of function,
   reproductive endocrinology, reproductive cycles and the physiology and pathology of reproduction.
5. Course Goals:
To provide an overview of reproductive function and disease in domestic animals.

6. Student Learning Outcomes:
Students will have a strong working knowledge of the reproductive anatomy (gross and microscopic anatomy) of large and small animals; an understanding of the normal physiology and endocrinology of reproduction; will be familiarized with current reproductive technologies and their application, regulation of function, and reproductive pathology.

7. Instructional Methods:
This course will consist of multiple lectures (audio/video, blackboard, lectures and guest lectures) laboratories (problem based learning and hands on laboratory instruction) and clinical science visits to private practitioners.

8. Course Calendar:
Please see Course Details at the end.

9. Course Policies:
• Attendance:
Students are expected to attend all classes. If you must miss a surgical skills, physical exam or small-animal handling lab due to an excused absence, you will need to attend a scheduled make-up lab during finals week. This will provide an opportunity to practice the skills and complete your task booklet. If you miss another activity (ethics, case-based discussion), you will be assigned an appropriate make-up activity in order to receive credit for the missed session.
• Classroom Behavior:
Any type of behavior in the classroom that is disruptive, distracting, or disrespectful to the instructor or to your fellow students will not be tolerated and will result in dismissal from the classroom. This includes, but is not limited to, disrespectful comments, the use of tobacco products, consumption of food, use of cell phones or wireless devices, or use of any type of communicative device. All cell phones or other such devices must be turned off while in the classroom. You can use such devices for note taking or other class related activities. Do not browse the Internet, text message or IM while in the classroom.
• Plagiarism:
Plagiarism is the overt or covert use of other people’s work or ideas without acknowledgement of the source. This includes using ideas or data from a classmate or colleague without permission and acknowledgement, including sentences from journal articles in your writing without citing the author, or copying parts of a website into your essay. Plagiarism and cheating are serious offenses that violate the student code of conduct which may result in an “F” in the course and/or referral to the university disciplinary committee.
• Weekly activities and assignments:
Class schedule will be provided on Blackboard, this will be done in order to ensure adequate travel time. Some lab sessions may begin earlier and or end later. Please check the detailed course schedule and plan ahead. Punctuality is essential in order to ensure you have time to complete the scheduled activities.
• Dress Code:
Students are expected to dress professionally and adhere to the Departmental dress code for all activities.

10. Evaluation:
Grading:
The course is graded Pass/Fail, but not ranked. A minimum average of 70% is required in order to pass the course. Students with final averages below 70% will receive an “F” for the course.
There are 2 midterms and one final exam (not comprehensive) - Tentative schedule:

   Exam # 1: lectures 1-8 and labs 1-4  
   Exam # 2: lectures 9-18 and labs 5-8  
   Exam # 3: lectures 19-29 and labs 9-13 (not comprehensive)

The format for the midterms will be multiple choice, short answer and identification questions. Each exam will incorporate information from the respective lab portions. There will be no separate lab exam.

Grades:  Each examination is worth approximately one-third of your grade.  
Passing Grade: 70 %

No Make-Up Exams:
All exams must be taken at the scheduled time. NO EXCEPTIONS! Exams cannot be taken before or after the scheduled date/time. If you miss an exam, you will receive a zero as your grade. *Note: If you have a conflict due to a university-sponsored event, you must notify me prior to the exam with a confirmation letter from University authority. If you miss an exam for medical reasons you need to inform the instructor as soon as possible and provide a statement from a licensed physician.

11. Support Services:  
If you require more assistance than can be provided in class, and office hours, you may want to contact Student Support Services (http://www.uaf.edu/sssp/) or the Department of Veterinary Medicine for assistance.

12. Disability Services:  
All students, including those with disabilities, are welcome in this course, and we are committed to providing equal access to this course for all students. If you have a disability (including learning disabilities) please inform us during the first week of class so that we can accommodate your specific needs. If you have not already done so, you will also need to contact UAF’s Office of Disabilities Services at 474-5655 or uaf-disabilityservices@alaska.edu. Everyone should have the opportunity to participate fully in the course and to complete assignments and exams to the best of their ability. If accommodations are needed to enable you to do so, we will gladly work with you to provide them.

COURSE DETAILS  
Please see the documents posted in Blackboard for details regarding specific laboratory sessions, including the list of criteria for selecting animals for participation in the PE skills laboratories.

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<tr>
<th>Tentative Schedule</th>
<th>Lecture Topic</th>
<th>Laboratory Topic</th>
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| 1. Development of the Reproductive Tract | - Chromosomal sex  
- Embryonic origin of reproductive tissues  
- Factors responsible for phenotype |
| 2. Reproductive Physiology of the Male | | |

DVM 744 Syllabus  
Page 3 of 8
- Anatomy of the male reproductive tract
- Hypothalamus
- Pituitary
- Testis
- Production sites and target cells
- Feedback mechanisms

2. Gross anatomy: male
- Testis, tubular system and accessory sex glands
- Scrotum and external genitalia

3. Regulation of testicular function
- Hormones
- Seasonality
- Thermoregulation

3. Microanatomy: male
- Testis, tubular system and accessory sex glands
- Leydig and Sertoli cells
- Blood-Testis barrier

4. Spermatogenesis

5. Characteristics of semen
- Sperm structure
- Maturation and longevity
- Storage sites
- Seminal plasma

6. Semen collection and analysis
- Techniques of collection
- Motility analysis (visual and CASA)
- Morphology stains
- Concentration measurements
- Flow cytometry

4. Semen evaluation
- Dog semen collection

7. Breeding soundness evaluation
   Of the male

8. Reproductive Pathology of the Male
- Prostatic disease
- Pathophysiology of spermatogenesis
- Cryptorchidism
- Hypogonadism
- Orchitis
- Tumors

9. Reproductive Endocrinology of the Female
   - Hypothalamic hormones
   - Pituitary hormones
   - Ovarian hormones
   - Feedback mechanisms

10. Reproductive Cycles, Ovarian Function and Sexual Behavior
    - Follicle development
    - Ovulation
    - Corpus luteum formation
    - Luteolysis
    - Sexual Dimorphism
    - Hormones and Behavior
    - Pheromones

11. Factors Affecting Reproduction
    - Puberty
    - Seasonality/photoperiod
    - Reproductive senescence
    - Postpartum anestrus
    - Nutrition

12. The Estrous Cycle: Large Animal
    - Cattle
    - Small ruminants
    - Horses
    - Llamas
    - Pigs

13. Small Animal Reproduction
    - Estrous cycle of dogs and cats

14. Canine Reproduction
    - Breeding management principles

15. Contraception

5. Gross Anatomy: Female
   - Gross tracts from cow, mare, bitch

6. Microscopic Anatomy: Female
   - Microscopy of ovaries, oviduct, uterus, etc. of domestic animals

7. Canine Breeding Management Lab
   - Vaginal cytology
   - Endocrine Diagnostic tests
   - Breeding techniques
16. Monitoring Reproductive Function
In the non-pregnant female
- Diagnostic endocrinology
- Estrus detection
- Ultrasonography
- Palpation
- Radiography
- Culture, Cytology & Biopsy

8. Equine: Diagnostics Lab
- Teasing
- Ultrasonography
- Cytology
- Speculum Examination

17. Manipulation of Reproductive Function in the Non-pregnant female
- Estrous synchronization
- Induction of folliculogenesis
- Induction of ovulation
- Termination of luteal activity
- Superovulation
- Suppression of ovarian activity

18. Female Reproductive Pathology
- Developmental anomalies
- Acquired anomalies

EXAMINATION # 2

19. Physiology of Pregnancy I
- Gamete transport
- Fertilization
- Preimplantation embryology and technology
- Maternal recognition of pregnancy
- Twinning, hybrids

20. Physiology of Pregnancy II
- Placentation and placental function
- Maternal physiology during pregnancy
- Principals of pregnancy diagnosis
- Fates of the abnormal conceptus

21. Principles of Developmental Pathology
- Incidence and significance
- Causes of developmental disease
- Factors involved in pathogenesis: critical periods, thresholds

9. Pregnancy Diagnosis

DVM 744 Syllabus
Page 6 of 8
22. Teratology: Illustrative Examples

23. Parturition
   - Preparation for parturition
   - Initiation of parturition
   - Stages of labor
   - Induction of labor

24. Obstetrics/Dystocia
   - Normal delivery
   - Causes of dystocia
   - Obstetrical intervention and postpartum care

25. Small Animal Obstetrics – I

26. Small Animal Obstetrics – II

27. Assisted Reproduction Techniques
   - Embryo Transfer (ET)
   - Gamete Intrafallopian Transfer (GIFT)
   - Sexing sperm
   - Intracytoplasmic Sperm Injection (ICSI)
   - InVitro Fertilization (IVF)

28. Neonatology

29. Mammary Gland
   - Development
   - Anatomy
   - Physiology

29b. Breeding Management of Cattle
     Comments on Heat detection, artificial Insemination

30. Lactation
   - Endocrine control
   - Colostrum
   - Lactation cycle
   - Regression and involution

10. Placental Structure

11. Obstetrics I: Principles of Large Animal Obstetrics

12. Obstetrics II: Advanced Procedures in Large Animal Obstetrics

13. Mammary Gland
- Mastitis

FINAL EXAMINATION

Spring 2017 Course Calendar