

62-GNC

APR 20 2015

FORM 1

See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> FOR a complete description of the rules governing curriculum & course changes.

### ORIGINAL COURSE OR NEW COURSE PROPOSAL

**SUBMITTED BY:**

DEPARTMENT	Veterinary Medicine	COLLEGE/SCHOOL	CNSM
PREPARED BY	Cathy Griseto	PHONE	474-1928
EMAIL CONTACT	<a href="mailto:cagriseto@alaska.edu">cagriseto@alaska.edu</a>	FACULTY CONTACT	Molly Murphy

**1. ACTION DESIRED**

(CHECK ONE):

☐ Trial Course

☒ New Course

**2. COURSE IDENTIFICATION**

Dept

DVM

Course #

724

No. of Credits

6

Justify upper/lower division status &amp; number of credits:

Professional Program required course – see CSU syllabus attached

**3. PROPOSED COURSE TITLE:**

Veterinary Bioanalytical Pathology

**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 SEARCHED?**

YES/NO

☐ NO

If yes, Dept.

Course #

How will the two course levels differ from each other? How will each be linked to its 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:**

Fall each year beginning 2016

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 course compressed to less than six weeks must be approved by the Core Learning Committee.

**COURSE FORMAT:**

(check all that apply)

☒ 1

☐ 2

☐ 3

☐ 4

☐ 5

☒ 6

6 weeks to full semester

OTHER FORMAT (specify)

Mode of delivery (specify lecture, field trips, labs, etc)

Lectures and Labs

**9. CONTACT HOURS PER WEEK**

5

lecture

hours/weeks

2

lab

hours/week

practicum

hours/week

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)

The lab is technically a clinical lab, as per the definition in the faculty senate guidelines  
 " For typical science and engineering labs where students work with teaching assistant guidance performing preset exercises, 2400 minutes (3 hours/week/credit for a 14 week semester) is used. For labs in which a faculty member interacts with students and provides feedback throughout the laboratory period (clinical labs, art studio, automotive technical labs) 1600 minutes (2 hours/week/credit for a 14 week

**RECEIVED**
**APR 15 2015**

Dean's Office

College of Natural Science &amp; Mathematics



semester) is used."

**10. COMPLETE COURSE 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 P487 W, 0      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:** COMIN F132 or COMIN F142; ENGL F112; ENGL F212 or ENGL F213; ENGL F414; FISH P425; or PERMISSION OF INSTRUCTOR. CROSS-LISTED WITH NRMN P487. (3+0)

DVM 724      Department of Veterinary Medicine  
6 Credit      Offered Fall

Veterinary Bioanalytical Pathology

This course will help students begin to:

1. Understand principles used to generate interpretable laboratory results for hematology, biochemistry, and cytopathology.
2. Understand kinetics, mechanisms, and interpretations of basic hematologic, cytologic, and biochemical responses.
3. Understand integrated diagnostic test selection rationale for the complicated medical patient.
4. Be able to interpret and integrate laboratory diagnostic test results in evaluating the health of veterinary patients.

**Pre-requisites:** Good standing in Professional Veterinary Program

**11. COURSE CLASSIFICATIONS:** Undergraduate courses only. Consult with CLA CURRICULUM COUNCIL to apply S or X classification appropriately; otherwise leave fields blank.

X = Humanities

S = Social Sciences

Will this course be used to fulfill a requirement for the baccalaureate core? If YES, check below.

YES:

NO:

X

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

O = Oral Intensive, FORM 6

W = Writing Intensive, FORM 7

X = Baccalaureate Core

**11A. Is course content related to healthcare, science or environmental studies? If yes, a "SCIENCE" 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 takes on consuming a Major Course Change - FORM 2 form.

Letter:

X

PASS/FAIL:



**RESTRICTIONS ON ENROLLMENT (if any)**

**14. PREREQUISITES**

Professional Veterinary Medical program student or permission of instructor

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

**15. SPECIAL RESTRICTIONS, CONDITIONS**

Professional Veterinary Medical program student or permission of instructor

**16. PROPOSED COURSE FEES**

TBD

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

Yes

Yes/No

**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 (xlriensen@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

☒

Yes

Department will keep complete library of required course materials in AXRB office

**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 should be no impact on other departments.


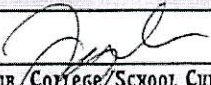
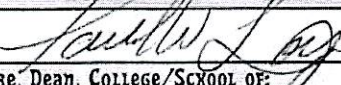
**JUSTIFICATION FOR ACTION REQUESTED**

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.**

	Date	4/13/15
Signature, Chair, Program/Department of: Veterinary Medicine		
	Date	4/16/15
Signature, Chair, College/School Curriculum Council for: CHSM		
	Date	4/16/15
Signature, Dean, College/School of: CHSM		

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

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

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

	Date	
Signature, Chair		
Faculty Senate Review Committee: <input type="checkbox"/> Curriculum Review <input type="checkbox"/> GRAC		
<input type="checkbox"/> Core Review <input type="checkbox"/> SADAC		

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

	Date	
Signature, Chair, Program/Department of:		
	Date	
Signature, Chair, College/School Curriculum Council for:		
	Date	
Signature, Dean, College/School of:		

**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 (eg: 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": [http://www.uaf.edu/files/uafgov/Info-to-Publicize-C\\_Grading-Policy-UPDATED-May-2013.pdf](http://www.uaf.edu/files/uafgov/Info-to-Publicize-C_Grading-Policy-UPDATED-May-2013.pdf)

**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/> 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 WHITTAKER BLDG, 474-5655) to provide reasonable accommodation to students with disabilities.

5/21/2013



# **DVM 724 BIOANALYTICAL PATHOLOGY**

## **SYLLABUS – FALL YEAR 2**

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### **Department of Veterinary Medicine, University of Alaska Fairbanks**

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#### **1. Course Information:**

Title: Bioanalytical Pathology  
Number: DVM 724  
Credit: 6  
Prerequisites: Successful Completion of First year Professional Veterinary Program  
Location: TBD  
Meeting time: TBD

#### **2. Instructor Contact Information:**

Name: Dr. Molly Murphy  
Office Location: 182 Arctic Health Research Building  
Office Hours: By appointment  
Office Phone: 474-1990  
Email: mdmurphy@alaska.edu

Email is the best way to reach the instructor. Please note that I will only be checking email Monday through Friday, 8:00 am-5:30pm (unless otherwise noted in class). Messages received outside of these times will be answered within the next business day (unless otherwise noted in class). If you do not receive a reply within this time frame, assume that the email was not received and please resend your message.

#### **3. Course Reading/Materials:**

##### **Required textbook:**

Thrall MA, Weiser MG, Allison A, Campbell T, eds: Veterinary Hematology and Clinical Chemistry. 2<sup>nd</sup> ed. Wiley-Blackwell, 2012.

##### **Recommended cytology books:**

Canine and Feline Cytology: A Color Atlas and Interpretation Guide by RE Raskin and D Meyer, Saunders, 2009.

Diagnostic Cytology and Hematology of the Dog and Cat by RL Cowell, RD Tyler, JH Meinkoth, and DB DeNicola, Mosby, 2007.

Diagnostic Cytology & Hematology of the Horse by RL Cowell, RD Tyler, Potter, Mosby, K McCance, and Fitzgerald. Mosby, 2007.

Other course resources: Blackboard, Handout Material, Selected current literature

Other available text resources:

Atlas of Veterinary Hematology: Blood and Bone Marrow of Domestic Animals by JW Harvey. Saunders, 2001.

Avian and Exotic Animal Hematology and Cytology by TW Campbell, and CK Ellis Wiley-Blackwell, 2007.

A Guide to Hematology in Dogs and Cats. MacWilliams, Feldman, Metzgar, Pollack. Teton New Press, 2001.

Clinical Biochemistry of Domestic Animals, Sixth Edition. Kaneko, Harvey, Bruss, eds. Academic Press, 2008.

Fluid, Electrolyte and Acid-Base Disorders in Small Animal Practice, 4<sup>th</sup> ed. by DiBartola. Elsevier 2012.

Fundamentals of Veterinary Clinical Pathology, Stockham, Scott. Wiley-Blackwell, 2008

#### 4. Course Description:

DVM 724 is a Professional Veterinary program requirement studying pathology, hematology, biochemistry and cytopathology.

#### 5. Course Goals:

This course will help students begin to:

1. Understand principles used to generate interpretable laboratory results for hematology, biochemistry, and cytopathology.
2. Understand kinetics, mechanisms, and interpretations of basic hematologic, cytologic, and biochemical responses.
3. Understand integrated diagnostic test selection rationale for the complicated medical patient.
4. Be able to interpret and integrate laboratory diagnostic test results in evaluating the health of veterinary patients.

#### 6. Student Learning Outcomes:

Students will be fluent in:

1. principles used to generate interpretable laboratory results for hematology, biochemistry, and cytopathology;
2. kinetics, mechanisms, and interpretations of basic hematologic, cytologic, and biochemical responses;
3. integrated diagnostic test selection rationale for the complicated medical patient; and
4. interpretation and integration of laboratory diagnostic test results in evaluating the health of veterinary patients.

#### 7. Instructional Methods:

The course will consist of a mixture of lecture sessions and lab activities. These activities may include a hands-on laboratory (e.g. blood smear preparation and analysis, cytological evaluation, etc.), or interpretation of clinical laboratory chemistry values. During some of the sessions, you may be asked to travel to another location.

**Attendance Policy:** Attendance at all sessions is required. You will be asked to sign an attendance sheet at the beginning of each session. You may only sign in for yourself. Marking any other student as present is an Honor Code violation.



**8. Course Calendar:**

See tentative lecture schedule at the end of syllabus.

**9. Course Policies:**

- **Attendance:**

Students are expected to attend all classes. If you must miss a 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 (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. 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.

**10. Evaluation:**

The final grade will be based on the following scale after all tests, quizzes, and assignments have been tallied:

90.50 to 100% = A  
89.50 to 90.49% = A-  
87.50 to 89.49% = B+  
80.50 to 87.49% = B  
79.50 to 80.49% = B-  
77.50 to 79.49% = C+  
69.50 to 70.49% = C  
64.50 to 69.49% = D  
64.49% and below = F

Only bring the materials needed for your exam on exam dates. Cell phones must be stored out of sight and turned off. If I suspect cheating occurs during an exam, I reserve the right to re-administer the exam to the entire class. If you are found cheating, you will receive a zero for the exam and will be reported to university disciplinary committee.

- **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. Weekly activities:**

Punctuality is essential in order to ensure you have time to complete the scheduled activities. Please see the documents posted on Blackboard for details regarding specific laboratory sessions.

**Expected Time Commitment:**

On average, you should expect to spend 7 hours per week in class/lab, and an additional 2-3 hours per week on outside work. The time distribution will vary over the course of the semester, depending on the specific activity your group is completing.

**12. 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.

**13. 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 (474- 5655). 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.

**Tentative Schedule**

**DATE:            TOPIC**

9/1-9/7	Course overview Sampling Lab techniques Hematology, CBC (Chapter 5) Lab #1 – PCV / TP/ making slides
9/8-9/14	Intro to Anemia (Chapter 6) Nonregenerative anemia (Chapter 7) Lab #2 Scope / Poly / reticulocytes
9/15-9/21	Regenerative Anemia (Chapter 8) RBC Polycythemia(Chapter 9) WBC (Chapter 10) Lab #3 – RBC morphology



- 9/22-9/28     **EXAM 1**  
 Neutrophils (Chapter 11)  
 Leukocyte responses (Chapter 12)  
 WBC Review  
 Lab #4 – WBC identification and numbers
- 9/28-10/5     Molecular Diagnostics of hematologic malignancies (Chapter 13)  
 Hemostasis(Chapter 16)  
 Hemostasis  
 Lab #5 – WBC responses
- 10/6-10/12     **EXAM 2 - cumulative**  
 Blood transfusion & X-match (Chapter 17)  
 Bone marrow indications (Chapter 14)  
 Lab #6 – Hemostasis and fibrinogen
- 10/13-10/19     Intro to Biochemistry/Data Interpretation  
 Kidney (Chapter 23)  
 Urinalysis  
 Lab#7-Renal biochemistry
- 10/20-10/26     Liver (Chapter 26)  
 Liver  
 Muscle (Chapter 30)  
 Lab #8 – Urinalysis
- 10/27-11/2     **EXAM 3 – cumulative**  
 Endocrine Pancreas & Glucose(Chapter 27)  
 Exocrine Pancreas (Chapter 28)  
 Lab#9-Liver/Muscle/Pancreas biochemistry
- 11/3-11/9     Intestine (Chapter 28)  
 Plasma proteins (Chapter 29)  
 Serum lipids (Chapter 31)  
 Endocrine Thyroid / adrenal  
 Lab#10-Protein and lipid biochemistry lab
- 11/10-11/16     **EXAM 4 – cumulative**  
 Endocrine thyroid / adrenal (Chapter 32)  
 Electrolytes (Chapter 24)  
 Lab#11-Endocrine biochemistry lab
- 11/17-11/23     Electrolytes(Chapter 24)  
 Acid Base (Chapter 25)  
 Ca/Ph/Mg (Chapter 33)  
 Lab#12-Acid Base/elemental biochemistry lab
- 11/25-12/2     **EXAM 5 – cumulative**  
 Instrumentation QA/QC  
 Cytology collection and artifacts



- 12/5-12/9      Fluid Cytology  
                  Lymph node cytology (Chapter 15)  
                  LAB #13 – Fluid Cytology  
                  Solid tissue cytology
- 12/12-12/16    Dx assess of immune system (Chapter 15)  
                  Lab #14 – LN Cytology  
                  Case Studies

**FINAL EXAM** - cumulative