Proposal Form For Addition And Revision Of Courses

1. Proposing College / School: College of Veterinary Medicine
   Department: Veterinary Biomedical Sciences (VBMS)

2. Course Prefix and Number: VBMS 4980
   3. Effective Term: Spring 2010

4. Course Title: Undergraduate Research
   Abbreviated Title (30 characters or less): N/A

5. Requested Action:
   - Renumber a Course
   - Add a Course
   - Revise a Course
   - Current Course Number:
     Proposed Course Number: VBMS 4980
   - Type of Revision:

6. Course Credit:
   Contact/Group Hours Schedule Type
   (e.g.: Lab, Lecture, Practicum, Directed Study)

<table>
<thead>
<tr>
<th>Maximum Hours (Repeatability):</th>
<th>1-3</th>
<th>Undergraduate Research</th>
<th>Weekly</th>
<th>1-3</th>
<th>Var</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credit Hours:</td>
<td>1-3</td>
<td></td>
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7. Grading Type:
   - Regular (ABCDF)
   - Satisfactory/Unsatisfactory (S/U)
   - Audit

8. Prerequisites, Co-Requisites:
   (Indicate with * if item is recommended but not required; indicate minimum grade, if applicable.)
   - Prerequisite(s):
   - Co-Requisite(s):
   - Pre/Co-Requisite(s):

9. Restrictions:
   - College
   - Major
   - Standing
   - Degree

10. Course Description:
    (20 Words or Less; exactly as it should appear in the Bulletin)
    Directed, supervised undergraduate research in veterinary biomedical sciences (VBMS). Course may be repeated for a maximum of 9 credits.

11. May Count Either
    (Indicate if this particular course cannot be counted for credit in addition to another)
    - Program Type (e.g.: minor, major, etc.)
    - Program Title (e.g.: MS in Chemistry, Performance Option, Minor in Art)
    - Requirement or Elective? (required or optional?)

12. Affected Program(s):
    (Respond “N/A” if not included in any program)
    (e.g.: MS in Chemistry, Performance Option, Minor in Art)
    N/A

13. Overlapping or Duplication of Other Units' Offerings:
    (If course is included in any other degree program, is used as an elective frequently by other unit(s), or is in an area similar to that covered by another college/school, attach correspondence with relevant unit)
    - Applicable
    - Not Applicable
14. Justification:

Undergraduate students in good academic standing and who have interests in biomedical science-related careers often seek opportunities to work with faculty members at the College of Veterinary Medicine through the Veterinary Biomedical Sciences (AU-CVM/VBMS) program. To date, there has been no mechanism through which such programs can be set up such that: (1) credit accrues to the appropriate academic unit (in this case the AU-CVM/VBMS program); and, (2) student records reflect their interactions and involvement with the AU-CVM/VBMS program accurately. Moreover, there is currently no graded coursework option established for this purpose. Given that: (1) undergraduate research experiences are central to the professional development and success of highly motivated students with designs on life science-based careers; and (2) the AU-CVM/VBMS program is consistently targeted by such students, this request will remove a critical barrier to student success and open the door to new and important educational opportunities for AU undergraduate students. The recently established ‘AU-CVMBRats’ program (See: http://www.vetmed.auburn.edu/research/brats-program) provides documentable evidence of a continuing commitment on the part of the AU-CVM/VBMS to support undergraduate research.

(Include a concise, yet adequate rationale for the addition/revision of the course, citing accreditation, assessments (faculty, graduate, and/or external) where applicable)

15. Resources:

Students will work with AU-CVM faculty mentors in established research environments as approved by the Associate Dean for Research and Graduate Studies at the AU-CVM.

(Indicate whether existing resources such as library materials, classroom/laboratory space, and faculty appointments are adequate to support the proposed addition/revision; if additional resources are required, indicate how such needs will be met, referencing the appropriate level of authorization -- i.e.: Dean -- where necessary; if no additional resources or shifting of resources will be necessary, respond “Not Applicable”)

16. Student Learning Outcomes:

Undergraduate research experiences will be structured on a student-by-student basis by AU-CVM/VBMS faculty mentors. Expected outcomes for each research experience will be defined, in writing, by the mentor and a document, signed by both student and mentor, will be filed in the Office of the Associate Dean for Research and Graduate Studies (ORGS) in the AU-CVM in advance of the initiation of all undergraduate research programs. Broadly, learning outcomes will include, but will not necessarily be limited to: (1) introduction to/experience with the scientific method and hypothesis testing; (2) development and/or refinement of a technical skill set(s) appropriate to the scientific discipline (ex. animal-handling skills, laboratory safety, validation of one or more analytical biotechniques); (3) development/refinement of written and oral communication skills associated with maintenance of a laboratory notebook and preparation of formal written and oral summaries of research activities.

(State in measurable terms (reflective of course level) what students should be able to do when they have completed this course)

17. Course Content Outline:

Each research experience for undergraduate students (REU) will be unique. Therefore, content cannot be standardized. However, AU-CVM/VBMS faculty mentors will be required to define - in writing - the goals and aims of proposed REUs with a breakdown of basic activities, definition of all deliverables and a timetable. This ‘syllabus’ and research plan will be signed by mentor and student and filed in the Office of the Associate Dean for Research and Graduate Studies (ORGS).

(Provide a comprehensive, week-by-week breakdown of course content, including assignment due dates)

18. Assignments / Projects:

Students will be required to: (1) maintain a laboratory notebook (to remain as property of the mentor/PI laboratory; (2) compose and submit a brief (<5 pages) summary of the research experience; and (3) prepare and deliver an oral presentation (10-20 minutes using Powerpoint or equivalent.)
software) in review of the research experience. The latter will be presented to the AU-CVM/VBMS mentor, members of the sponsoring laboratory and guests as deemed appropriate by the mentor.

(List all quizzes, projects, reports, activities and other components of the course grade -- including a brief description of each assignment that clarifies its contribution to the course's learning objectives)

19. Rubric and Grading Scale:

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<tr>
<th>Component</th>
<th>Weight</th>
</tr>
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<tbody>
<tr>
<td>Attendance and overall work ethic</td>
<td>25%</td>
</tr>
<tr>
<td>Laboratory Technique and lab notebook quality</td>
<td>25%</td>
</tr>
<tr>
<td>Written research summary report</td>
<td>25%</td>
</tr>
<tr>
<td>Oral research summary presentation</td>
<td>25%</td>
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</table>

Grades: 90-100 (A); 80-89 (B); 70-79 (C); 60-69 (D); <60 (F)

(List all components of the course grade -- including attendance and/or participation if relevant -- with point totals for each; indicate point totals and ranges or percentages for grading scale; for S/U grading, detail performance expectations for a passing grade)

20. Justification for Graduate Credit: Not applicable

(Include a brief statement explaining how the course meets graduate educational standards (i.e.: rigorous standards for evaluation, development of critical thinking and analytical skills, etc.))

(Included below are standard statements regarding course policies. If necessary, a statement may be altered to reflect the academic policies of individual faculty members and/or the academic unit or department, provided that there is no conflict with the Tiger Cub, Faculty Handbook, or any existing university policy.)

REQUIRED STATEMENTS

Attendance: Although attendance is not required, students are expected to attend all classes, and will be held responsible for any content covered in the event of an absence.

Excused Absences: Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student's immediate family, the death of a member of the student's immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact the instructor in advance of the absence to request permission. The instructor will weigh the merits of the request, and render a decision. When feasible, the student must notify the instructor prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the Tiger Cub for more information on excused absences.

Make-Up Policy: Arrangement to make up a missed examination (e.g.: hour exams, mid-term exams) due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absence(s). Except in unusual circumstances, such as the extended absence of the student or the absence due to university holidays, a make-up exam will take place within two weeks of the date that the student initiates arrangements for it. Except in extraordinary circumstances, no make-up exams will be arranged during the last three days before the final exam period begins.

Academic Honesty Policy: All portions of the Auburn University student academic honesty code (Title XII) found in the Tiger Cub will apply to university courses. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Disability Accommodations: Students who need special accommodations in class, as provided for by the Americans With Disabilities Act, should arrange for a confidential meeting with the instructor during office hours in the first week of classes (or as soon as possible if accommodations are needed immediately). The student must bring a copy of their Accommodation Letter and an Instructor Verification Form to the meeting. If the student does not have these forms, they should make an appointment with the Program for Students with Disabilities, 1288 Haley Center, 844-2096 (VTT).
From: Kathie Mattox
To: Frank Bartol
Date: 10/5/2009 6:35 PM
Subject: Re: VBMS 'Honors' Courses - DRAFT Proposals attached

Yes, the statement is okay with us.
Thanks!!!
~KM

>>> Frank Bartol 10/5/2009 6:34 PM >>>
Hi Kathie:

Thanks. That's great to hear. I spoke with Kevin Snyder, who suggested that we include a line in the justification for these two courses that they have been 'developed in consultation with and have the endorsement of the AU Honors College'. Is this OK with you? If so, we're effectively ready to submit. Both Drs Boosing and Angarano are 'on board' and we're ready to go.

Thanks again.
- F.F. 'Skip' Bartol

>>> Kathie Mattox 10/5/2009 6:30 PM >>>
Frank,

I took a day off from campus and am sorry that I did not get back with you Friday. I think the verbiage looks good and don't have any suggestions for changes. (The forms have drastically changed since the last time we added a class.)

Thanks for all that you are doing for our students.

Kathie

>>> Frank Bartol 10/2/2009 8:27 AM >>>
Good morning Kathie:

I've attached 2 DRAFT proposals for the AU-CVM/VBMS 'Honors' courses (4967 and 4997). They are similar but not identical. If you would please take a look at these forms and give me your input. We hope to move this forward efficiently.

Thanks again for all of your help.

- Skip Bartol

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Frank F. (Skip) Bartol, PhD
Alumni Professor and Associate Dean for Research & Graduate Studies
Department of Anatomy, Physiology & Pharmacology
Cellular & Molecular Biosciences Program
Office of Research & Graduate Studies
106 Greene Hall
College of Veterinary Medicine
Auburn University, AL 36849-5517
Ph: 334-844-3700
>>> Frank Bartol 10/7/2009 6:50 PM >>>
Hello Kristen:
Our AU-CVM proposals for 4000-level Undergraduate Research courses, to be coordinated through the Veterinary Biomedical Sciences (VBMS) program and my office, have been approved by the AU-CVM curriculum committee and Deans and are now awaiting review and approval by the University Curriculum committee. This means you're just a bit ahead of us. I am hoping that you will be able to register for VBMS 4980 for SPRING semester, 2010. If need to get registered now (I understand that it is pre-registration time), go ahead and register for the COSAM course. We can have you drop/add if/when the VBMS 4980 course is activated.
I have copied this note to Mr. Kevin Snyder (Coordinator II, Curriculum Management), our liaison with the University committee, as a 'real-world' example in which an undergraduate (Ms. Nichols) is seeking to engage in research with an AU-CVM/VBMS mentor (Dr. Boothe), but must do so through another college.
Best of luck with your undergraduate research and please come by my office while you're in the neighborhood!
Sincerely,
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Frank F. (Skip) Bartol, PhD
Alumni Professor and Associate Dean for Research & Graduate Studies
Department of Anatomy, Physiology & Pharmacology
Cellular & Molecular Biosciences Program
Office of Research & Graduate Studies
106 Greene Hall
College of Veterinary Medicine
Auburn University, AL 36849-5517
Ph: 334-844-3700
Fx: 334-844-0387
Email: baroff@auburn.edu
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>>> Kristen Nichols 10/7/2009 2:16 PM >>>
Hi Dr. Bartoff,
Michelle told me that you would be the one that would be able to answer my question! I am registering for undergrad research through the vet school under Dr. Dawne Boothe, but for credit through COSAM. I was wondering if the course code has been established yet, and if so, what is it? She said it might not be available until the end of this week, but that you might know now.
Thanks,
Kristen Nichols