Proposal Form For Addition And Revision Of Courses

1. Proposing College / School: Agriculture
   Department: Animal Sciences

2. Course Prefix and Number: ANSC 3420

3. Effective Term: Fall 2015

4. Course Title: Applied Animal Nutrition and Feeding
   Abbreviated Title (30 characters or less): Applied Nutrition & Feeding

5. Requested Action:
   - Renumber a Course
   - Add a Course
   - Revise a Course

6. Course Credit:

<table>
<thead>
<tr>
<th>Contact/Group Hours</th>
<th>Scheduled Type</th>
<th>Weekly or Per Term?</th>
<th>Credit Hours</th>
<th>Anticipated Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Lecture</td>
<td>weekly</td>
<td>2</td>
<td>90</td>
</tr>
<tr>
<td>2</td>
<td>Lab</td>
<td>weekly</td>
<td>1</td>
<td>90</td>
</tr>
</tbody>
</table>

   Total Credit Hours: 3

7. Grading Type:
   - Regular (ABCDF)
   - Satisfactory/Unsatisfactory (S/U)
   - Audit

8. Prerequisites/Corequisites:
   ANSC-3410 (proposed course)

9. Restrictions: List specific restriction in space above.
   - College
   - Major
   - Standing
   - Degree

10. Course Description:
    (20 Words or Less; exactly as it should appear in the Bulletin)
    Feedstuffs, diet formulation, and feeding practices applicable to the well-being and performance of economically important livestock and companion animals.

11. May Count Either:
    Program Type or Program Title
    (Indicate if this particular course cannot be counted for credit in addition to another)

12. Affected Program(s):
    (Respond “N/A” if not included in any program; attach memorandum if more space is required)
    | Major | B.S. in Animal Sciences (all but ANMF) | Required |
    |-------|---------------------------------------|---------|
    |       | See attached memo                     |         |

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:
This is the second of two 3-credit hour courses (ANSC-3410 and 3420) proposed as a sequence to replace the current "all-in-one" ANSC-3400 Animal Nutrition course which no longer meets the needs of our graduates. This course will better integrate foundation concepts from animal biology, organic chemistry and biochemistry and will bolster student understanding of intermediary metabolism in animals. It will be a required course in three of our four degree options, Pre-Vet (ANPV), Production-Management (ANPM), and Equine Science (ANEQ), but not in Muscle Foods (ANMF) because graduates from this latter option generally do not need expertise in balancing diets for animals.

(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:
Between the two proposed courses, one additional classroom will be needed, but space is currently available within our room assignment region.

(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:
Students successfully completing this course will:
1. Be able to taxonomically identify and classify nutritive value of commonly used feedstuffs for economically important livestock and companion animals.
2. Characterize influences of feedstuff processing on nutrient utilization.
3. Compare and contrast how different biotechnologically derived growth and performance enhancers are used safely and without detriment to livestock and their products consumed by humans.
4. Effectively utilize agricultural and industrial by-products and co-products (derived from the production of articles of commerce for human consumption) in feeding livestock.
5. Be able to articulate to consumers the relationship of feeding practices to animal health and well-being, providing a safe and nutritious food supply, and environmental quality.
6. Be able to formulate diets using a hand-held, battery operated calculator as well as by computer using least-cost formulation software.

(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:
LECTURES TOPICS BY WEEK:
1. Syllabus, introduction of topic, objectives, grading, overview of digestion
2. Feeding standards (NRC, ARC) and methods for assessment of nutrient content of feeds (AOAC, Van Soest, etc.)
3. Energy feedstuffs: grains molasses, liquid fats, by-products, etc.
4. Protein feedstuffs: plant sources, milling by-products, distillery/brewery by-products, etc.
5. Roughages: grazing forage, hay, silage, crop residues
6. Natural and commercial sources of required vitamins and minerals
7. Feed additives and metabolism-enhancing implants, antibiotics, ionophores, probiotics, growth promotants
8. Feed processing technologies: quality assurance, loss prevention, environmental concerns such as dust and pollution, etc.
9. Feeding the beef cattle brood cow herd: general concepts and specific concerns; backgrounding, preconditioning, stockerizing and feedlots
10. Feeding dairy cows: general concepts and specific concerns, feeding dairy calves and replacement heifers
11. Feeding small ruminants (sheep and goats)
12. Feeding swine
13. Feeding horses
14. Feeding companion animals (dogs and cats)
15. Feeding other food-animal species (poultry, rabbits, etc.)

LABORATORY ACTIVITIES BY WEEK:
1. Identification of common feedstuffs, laboratory assessment of feed quality
2. Feed laws and labeling, interpreting feed label information
3. Ration/diet formulation: use of feed composition and nutrient tables, formulas and conversions
4. Field trip to Auburn's Animal Feed Mill (North Auburn)
5. Formulation of rations/diets for beef cattle I, emphasis on grazing and harvested forage systems
6. Formulation of rations/diets for beef cattle II, emphasis on confined animal feed lot
7. Formulation of rations/diets for dairy cattle, total mixed rations (TMR), phase feeding
8. Formulation of rations/diets for swine, limited amino acids, protein energy interrelationships, bioavailability of phosphorus, premixes
9. Formulation of rations/diets for horses
10. Field trip to large commercial livestock-feed processing mill
11. Computer-based formulation of rations/diets for livestock, least-cost linear programming
12. Commercial pet foods
13. Field trip to pet food production facility
14. Analysis of animal waste, animal waste as fertilizer and pollutant
15. Field trip to study and evaluate animal waste handling and treatment

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

18. Assignments / Projects:
Lecture exams will be in traditional format including a mixture of multiple-choice, matching, true-false, fill-in-the-blank and short-answer essay style questions that will focus on Student Learning Outcomes 2-5 (see above). Laboratory quizzes will be similar but with more emphasis on fill-in-the-blank and short-answer essay questions where students must express their working knowledge and understanding and application of concepts in their own words. Student progress in mastering laboratory ration balancing exercises will be monitored throughout each laboratory, and students will be given continuing guidance until they arrive at a successful conclusion for each exercise. Laboratory quizzes and exercises will address Student Learning Outcomes 1 and 6 (see above) while reinforcing lecture material.

(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:
The final course grade will be based on a possible 500 points according to the following distribution:
2 lecture exams (worth 100 points each) = 200 points
10 laboratory quizzes (worth 20 points each) = 200 points
Final comprehensive exam = 100 points
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: N/A

(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 Student Policy eHandbook, Faculty Handbook, or any existing university policy.)

POLICY 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 consult the Student Policy eHandbook for more information on excused absences.

Make-Up Policy: Arrangement to make up a missed major 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 continued absence of the student or the advent of university holidays, a make-up exam will teleplace 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 Student Policy eHandbook 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 accommodations are asked to electronically submit their approved accommodations through AU Access and to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by e-mail. If you have not established accommodations through the Office of Accessibility, but need accommodations, make an appointment with the Office of Accessibility, 1229 Haley Center, 944-2099 (V/T/T).
Approvals

Department Chair / Head

Leonard Bell

College / School Curriculum Committee

Paul

College / School Dean

2-14-14

Date

2-25-14

Date

3/5/14

Date

Dean of the Graduate School (for Graduate Courses)

Date

Assoc. Provost for Undergraduate Studies (for Undergraduate Courses)

Date

Contact Person: Dale A. Coleman
E-Mail Address: colemda@auburn.edu

Telephone: 844-1512
Fax: 844-1519
Dear Kevin:

Here is verification that CoAGs Dean's office was in contact with CoSAM regarding this matter. Read the email by UCC member Dr. Hetzer exhibiting the fact that Dr. Cammarata (Assoc Dean, CoSAM) had seen this proposal. In fact Dr. Patterson circulated this proposal to the Vet School and CoSAM. The Vet School faculty liked it real well as they need nutrition but really have no formal nutrition courses in the professional program. As you know we are primarily interested in the proper course work for ANSC students; further the nutrition course are not necessarily part of a degree/major in Biology..they are pre-vet prerequisites.

By the way Dr. Dale Coleman will be the CoAG UCC representative, Dr. Muntifering will speak to the need for nutrition biology as well as application courses. It is a little bit like Calc 1 and then Calc 2.

Werner

-----Original Message-----
From: Georg Hetzer
Sent: Monday, April 14, 2014 4:20 PM
To: Werner Bergen
Subject: ANSC3410, 3420

Dear Werner,

Vince Cammarata contacted me regarding ANSC3410, 3420. Replacing ANSC3400 (4hrs) by two three hour courses would run contrary to the Provost’s intent of a 120 hrs limit for majors. COSAM's preVet options have already 121 and 122 hours.

I understand from the message attached to the proposal that ANSC3400 (4hrs) will still be offered. Is that the intention? But, since the new courses affect several curricula, would it not be better if we could get an understanding on the curricula issues at the same time.

Best regards,
Georg
From: Dale Coleman  
Sent: Thursday, July 24, 2014 3:41 PM  
To: Kevin Snyder  
Cc: Dale Coleman; Paul Patterson; Wayne Greene; Werner Bergen  
Subject: Follow-up on ANSC Nutrition course proposal....

Kevin,
Recall that I attended the April 17 UCC meeting to represent the College of Agriculture (in Werner Bergen’s absence) and to present a combination of proposals to reorganize our Department’s offering of nutrition courses (replace current ANSC-3400 with proposed ANSC-3410 and 3420). My take-home messages from that meeting were:
1) The Associate Dean’s for Colleges/Schools whose Pre-Vet programs would be affected by this change (CoSAM & Forestry) should meet to address any concerns, and
2) Information needed to be added to Item #18 on the New Course Proposal Form for both of the proposed new courses (rather than the “N/A” originally reported).

To those ends:
1) The following individuals met on May 1st to discuss the Animal Sciences nutrition course proposal:
   a. Dr. Paul Patterson, Associate Dean, College of Agriculture
   b. Dr. Vince Cammarata, Associate Dean, College of Sciences & Mathematics
   c. Dr. Sharon Roberts, Undergraduate Program Officer, College of Sciences & Mathematics
   d. Dr. Ed Loewenstein, Associate Dean, School of Forestry & Wildlife Sciences
   e. Dr. Gary Hepp, Undergraduate Program Officer, School of Forestry & Wildlife Sciences
   f. Dr. Dan Givens, Associate Dean, College of Veterinary Medicine
   g. Dr. Wayne Greene, Head, Department of Animal Sciences
   h. Dr. Steve Schmidt, proposed instructor for the new ANSC-3410 course
   i. Dr. Russ Muntifering, proposed instructor for the new ANSC-3420 course
   j. Myself, Undergraduate Program Officer, Department of Animal Sciences

   After open discussion, I believe Drs. Cammarata and Loewenstein left the meeting with a better understanding of the pedagogical need for the change and a willingness to cooperate with the implementation of the change in their respective curricula. I have copied Drs. Greene and Patterson on this e-mail so they can offer you their perspective if requested, and you are certainly welcome to contact others who attended the above meeting representing their respective interests.

2) I have attached updated New Course Proposal Forms for both ANSC-3410 and 3420 with additional information included in Item #18 for each as requested.

If everything looks in order to you, I ask that our request to replace our current ANSC-3400 course with the proposed ANSC-3410 and ANSC-3420 course sequence be placed back on the UCC agenda for final consideration.
Thank you for all of your help with this. Please let me know if you have any further questions or concerns.

Dale Coleman  
colemda@auburn.edu  
334-844-1512