# UNIVERSITY FACULTY SENATE FORMS

## Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. For more information, call the Faculty Senate Office at 831-2921.

**Submitted by:** _Limin Kung, Jr._____phone number___2524_____

**Department:** Animal & Food Science_____email address__lksilage@udel.edu____

**Date: Nov 20, 2009**_____

**Action:** _____**Add options for students to fulfill physiology requirement for the ANFS major**_____
(Example: add major/minor/concentration, delete major/minor/concentration, revise major/minor/concentration, academic unit name change, request for permanent status, policy change, etc.)

**Effective term**_____**10F**_____
(use format 04F, 05W)

**Current degree**____**ANFS**_____
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

**Proposed change leads to the degree of:** _____
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

**Proposed name:**_____
Proposed new name for revised or new major / minor / concentration / academic unit (if applicable)

**Revising or Deleting:**

**Undergraduate major / Concentration:**_____**Animal and Food Science major**_____
(Example: Applied Music – Instrumental degree BMAS)

**Undergraduate minor:**_____
(Example: African Studies, Business Administration, English, Leadership, etc.)

**Graduate Program Policy statement change:**_____
(**Must attach** your Graduate Program Policy Statement)

**Graduate Program of Study:**_____
(Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

**Graduate minor / concentration:**_____

**Note: all graduate studies proposals must include an electronic copy of the Graduate Program Policy Document, highlighting the changes made to the original policy document.**

**List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations)?**

(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses enter "None")

The current ANFS major has physiology requirement of BISC306. We wish to give students options in fulfilling this requirement by allowing to now take either BISC306, ANFS441(reproductive physiology) or ANFS442(lactation physiology).

**Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: http://www.ugs.udel.edu/gened/**

**Identify other units affected by the proposed changes:**
(Attach permission from the affected units. If no other unit is affected, enter "None")

None

**Describe the rationale for the proposed program change(s):**
(Explain your reasons for creating, revising, or deleting the curriculum or program.)

The current ANFS major has physiology requirement of BISC306. We wish to give students options in fulfilling this requirement by allowing to now take either BISC306, ANFS441(reproductive physiology) or ANFS442(lactation physiology).

**Program Requirements:**
(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and **include a side-by-side comparison** of the credit distribution before and after the proposed change.)
**DEGREE: BACHELOR OF SCIENCE**
**MAJOR: ANIMAL AND FOOD SCIENCES**

***CURRENT:***

CURRICULUM CREDITS
See University and College Requirements

**Math and Science Requirements**

MATH 221Calculus I3
BISC 207/BISC 208Introductory Biology I and II8
CHEM 101/CHEM 102 or
CHEM 103/CHEM 104General Chemistry I and II8
CHEM 213Elementary Organic Chemistry4
CHEM 214/CHEM 216Elementary Biochemistry w/lab4
BISC 306General Physiology3

**MAJOR REQUIREMENTS**
**A minimum grade of C- is required for all ANFS credits used to satisfy the major requirements.**

ANFS 101Introduction to Animal Science3
ANFS 102Food for Thought3

ANFS 111Animal Science Laboratory1
ANFS 140Functional Anatomy4
ANFS 230Foodborne Diseases (or ANFS 332 Animal Diseases)3
ANFS 251Animal Nutrition3
ANFS 252Animal Nutrition Laboratory1
ANFS 265Sophomore Seminar1
ANFS 300Principles of Animal and Plant Genetics3
ANFS 305Food Science (or ANFS 315 Food Safety)3

One of the following 4-credit capstone/production courses :4
ANFS 404Dairy Production
ANFS 411Food Science Capstone
ANFS 417Beef Cattle and Sheep Production
ANFS 418Swine Production
ANFS 421Poultry Production
ANFS 420Equine Reproductive Management

A minimum of 6 credits from the following, to include at least two courses

ANFS 409Food Processing3
ANFS 419Topics in International Animal Agriculture3-4
ANFS 424Non Ruminant Nutrition3
ANFS 435Animal Virology3
ANFS 436Immunology of Domestic Animals3
ANFS 439Food Microbiology3
ANFS 441Reproductive Physiology of Domestic3
ANFS 442Lactational Physiology3
ANFS 445Comparative Physiology of Domestic Animals3
ANFS 449Food Biotechnology4
ANFS 454Ruminant Nutrition3
ANFS 366/ANFS 466Independent Study3 (max)
ANFS 468Research 33 (max)
ANFS 470Principles of Molecular Genetics3

Second writing requirement (with a minimum grade of C-)3**
A second writing course involving significant writing experience. The course must be taken after completion of 60 credit hours. Approved courses are designated each semester. (**These credits can be used to satisfy credit requirements in the breadth requirements for Literature and Arts)

**ELECTIVES**
Variable to complete a total of 124 credits
After required courses are completed, sufficient credits must be taken to meet the minimum requirements for the degree. Only 4 credits of HESC 120 or 4 credits of performing Music credit may be counted toward the degree. ANFS 399may be taken P/F for a maximum of 2 credits toward the degree. No more than 5 credits of ANFS X66 may be counted towards the major.

Students should consult with their advisor regarding the choice of elective credits. Students wishing to concentrate their efforts in the areas of Production Systems, Equine and Companion Animals, Food Safety, or Biotechnology are strongly encouraged to consider the recommended course selections provided by the department.

**CREDITS TO TOTAL A MINIMUM OF124**

***PROPOSED:***
**DEGREE: BACHELOR OF SCIENCE**
**MAJOR: ANIMAL AND FOOD SCIENCES**

CURRICULUMCREDITS
See University and College Requirements

**Math and Science Requirements**

MATH 221Calculus I3
BISC 207/BISC 208Introductory Biology I and II8
CHEM 101/CHEM 102 or
CHEM 103/CHEM 104General Chemistry I and II8
CHEM 213Elementary Organic Chemistry4
CHEM 214/CHEM 216Elementary Biochemistry w/lab4
One of the following courses:
BISC 306 General Physiology 3
ANFS441 Reproductive Physiology 3
ANFS442 Lactation Physiology 3

**MAJOR REQUIREMENTS**
**A minimum grade of C- is required for all ANFS credits used to satisfy the major requirements.**

ANFS 101Introduction to Animal Science3
ANFS 102Food for Thought3
ANFS 111Animal Science Laboratory1
ANFS 140Functional Anatomy4
ANFS 230Foodborne Diseases (or ANFS 332 Animal Diseases)3
ANFS 251Animal Nutrition3
ANFS 252Animal Nutrition Laboratory1
ANFS 265Sophomore Seminar1
ANFS 300Principles of Animal and Plant Genetics3
ANFS 305Food Science (or ANFS 315 Food Safety)3

One of the following 4-credit capstone/production courses :4
ANFS 404Dairy Production
ANFS 411Food Science Capstone
ANFS 417Beef Cattle and Sheep Production
ANFS 418Swine Production
ANFS 421Poultry Production
ANFS 420Equine Reproductive Management

A minimum of 6 credits from the following, to include at least two courses

ANFS 409Food Processing3
ANFS 419Topics in International Animal Agriculture3-4
ANFS 424Non Ruminant Nutrition3
ANFS 435Animal Virology3
ANFS 436Immunology of Domestic Animals3
ANFS 439Food Microbiology3
ANFS 441Reproductive Physiology of Domestic3
ANFS 442Lactational Physiology3
ANFS 445Comparative Physiology of Domestic Animals3
ANFS 449Food Biotechnology4
ANFS 454Ruminant Nutrition3
ANFS 366/ANFS 466Independent Study3 (max)
ANFS 468Research 33 (max)
ANFS 470Principles of Molecular Genetics3

Second writing requirement (with a minimum grade of C-)3**
A second writing course involving significant writing experience. The course must be taken after completion of 60 credit hours. Approved courses are designated each semester. (**These credits can be used to satisfy credit requirements in the breadth requirements for Literature and Arts)

**ELECTIVES**
Variable to complete a total of 124 credits
After required courses are completed, sufficient credits must be taken to meet the minimum requirements for the degree. Only 4 credits of HESC 120 or 4 credits of performing Music credit may be counted toward the degree. ANFS 399may be taken P/F for a maximum of 2 credits toward the degree. No more than 5 credits of ANFS X66 may be counted towards the major.

Students should consult with their advisor regarding the choice of elective credits. Students wishing to concentrate their efforts in the areas of Production Systems, Equine and Companion Animals, Food Safety, or Biotechnology are

strongly encouraged to consider the recommended course selections provided by the department.

**CREDITS TO TOTAL A MINIMUM OF124**

**ROUTING AND AUTHORIZATION:** (Please do not remove supporting documentation.)

Department Chairperson _____ Assistant chair for Jack Gelb. Date 12/1/09

Dean of College Robin W. Mor Date 2/19/2010

Chairperson, College Curriculum Committee David Frey Date 2/22/10

Chairperson, Senate Com. on UG or GR Studies _____ Date _____

Chairperson, Senate Coordinating Com. _____ Date _____

Secretary, Faculty Senate _____ Date _____

Date of Senate Resolution _____ Date to be Effective _____

Registrar _____ Program Code _____ Date _____

Vice Provost for Academic Affairs & International Programs _____ Date _____

Provost _____ Date _____

Board of Trustee Notification _____ Date _____

Revised 02/09/2009 /khs