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: Kali Kniel phone number 302-831-6513

Department: Animal and Food Sciences email address: kniel@udel.edu

Action: Revise Animal and Food Science Major (ANFS)

(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: <u>12F</u> (use format 04F, 05W)

Current degree: BS

(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: BS

(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name: unchanged, Animal and Food Sciences

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

Revising or Deleting:

Undergraduate major / Concentration:

Revise Animal and Food Sciences major, degree BS

(Example: Applied Music – Instrumental degree BMAS)

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?

None. Please note that a new course ANFS 426 was proposed an accepted by the faculty senate last year for ANFS 426 Equine Management, but this course was not changed on our check-out sheet and the name was not corrected in the catalogue.

(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")

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

Proposed changes will not affect how the curriculum supports the 10 goals.

Identify other units affected by the proposed changes: We do not believe that there will be an impact on the Nutrition or Biology departments with the courses that have been added as options for graduation with the ANFS major. As described below in the rationale, the changes being proposed will make this ANFS major more flexible for the couple of students each year that may want more flexibility in the curriculum but will maintain a Food Science focus. These students would normally be taking NTDT 200, BHAN 130 and BISC 300 under the Food Science (FOSC) major; therefore, really no additional students will be taking these courses, but the same number of students will be taking the courses just under different majors within the Animal and Food Sciences department.

(Attach permission from the affected units. If no other unit is affected, enter "None")

Describe the rationale for the proposed program change(s):

The following changes are being proposed for the ANFS major in order to make this major more flexible for students with a Food Science (FOSC) interest that cannot be successful in the Chemistry and Physics courses required for the FOSC major. The ANFS major was originally proposed as a major that integrates both animal and food sciences; however we have seen that up until now the students that most likely benefit from this integrated major of ANFS are those with an animal science interest. With the proposed changes the ANFS major will be able to meet the needs of the largest amount of students. In saying this, however, it should be noted that it is not anticipated that more than 2-3 students will choose ANFS over FOSC, which means the impact on the other courses that are already represented in the FOSC major (NTDT 200, NTDT 222-for minors, and BISC 300) will not feel additional burdens by these changes (as noted above).

The revisions can be discussed in four points.

- 1. For flexibility for students with a food science focus, NTDT 200 and BHAN 130 have been added as options instead of ANFS 251 and ANFS 252 nutrition courses. Students majoring in ANFS with an animal science interest will take ANFS 251 and 252 as these are pre-requisites for many core ANFS courses.
- 2. The course ANFS426 was added last year and passed through faculty senate; however, the changes were not made to the catalogue.
- 3. The addition of the options of BISC 300 and BISC 276 were added as options to what was previously termed the physiology area. Substitutions are already being made for BISC 276 which is why this was added, especially for students interested in human medicine (1-2 each year). BISC 300 is a part of the FOSC major and we anticipate that the 2-3 students in ANFS interested in FOSC will still take this course.
- 4. In the current version of the ANFS major students are limited in their choices of ANFS 400 level courses and substitutions may be made for other courses as they are offered or developed. So that students can have the greatest flexibility in choosing courses that match their interest we have proposed to remove the specific courses and replace it with "A minimum of 6 credits from 300 or above level approved catalogue courses (excluding 366, 399, 464, 466)". The excluded courses are courses for teaching assistant credit, independent study, and internship credit.

(Explain your reasons for creating, revising, or deleting the curriculum or program.)

Program Requirements: The proposed revisions are made in red on the attached document compared to the current check sheet.

(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.)

Proposed	Animal & Food S	Scier	1CES Gradu	ation Check Sheet	124 credits required	Fall	l 201 <mark>2</mark>
Name:		Ul	DID:		Phone:		
Catalog Da	te:	M	inor(s):		Email:		
All requirements Catalog. Except and only by the	SITY REQUIREME must be fulfilled as indicated in to ions are granted only in extenuat Office of Academic Programs. (TITLE	he Univ	ersity ımstances		REQUIREMENTS C- is required for all courses with TITLE	the ANFS	5 rubric/subject a
ENGL 110	Critical Reading and Writing (minimum C-)	3	GRADE	MATH 221 BISC 207	Calculus I Intro Biology I	3	Gruid
ANFS165	First Year Experience/FYE	1		BISC 208	Intro Biology II General Chemistry I	4	
&	Discovery Learning	*		CHEM 101/103	General Chemistry I	4	

University Breadth Requirements◊ (9 credits) (A minimum grade of C- is required for all University Breadths)

3

Experience (DLE)

Multicultural Course

Creative Arts and Humanities					
		3			
History and	Cultural Change				
		3			
Social and Behavioral Sciences					
		3			
Mathematics, Natural Sciences, and Technology					
*	1/103 already fulfills this requirement)	*			

COLLEGE BREADTH REQUIREMENTS

Agriculture and Natural Resources (3 approve	ed areas, 9 credi	ts)
Physical Sciences			
(CHEM 101/103)	*		

^{*}Credits for these courses should not be counted in the total number of credit hours as they have already been included elsewhere on this checksheet.

(CHEM 102/104)

			(52 credits)
COURSE	TITLE	CR	GRADE
MATH 221	Calculus I	3	
BISC 207	Intro Biology I	4	
BISC 208	Intro Biology II	4	
CHEM 101/103	General Chemistry I	4	
CHEM 102/104	General Chemistry II	4	
CHEM 213/215	Elementary Organic Chemistry	4	
CHEM 214/216	Elementary Biochemistry w/lab	4	
ANFS 101	Introduction to Animal Science	3	
ANFS 102	Food for Thought	3	
ANFS 111	Animal and Food Science Laboratory	1	
ANFS 140	Functional Anatomy	4	
ANFS 230 or ANFS 332	Foodborne Diseases or Animal Diseases	3	
ANFS 251 or NTDT 200	Animal Nutrition or Human Nutrition	3	
ANFS 252 or BHAN 130	Animal Nutrition or Human Nutrition Laboratory	1	
ANFS 265	Career Development	1	
ANFS 300	Principles of Animal and Plant Genetics	3	
ANFS 305 or ANFS 315	Food Science or Food Safety	3	

§ One of the following 4-credit capstone/DLE courses:

		(4	credits)
ANFS 404	Dairy Production	4	
ANFS 411	Food Science Capstone	4	
ANFS 417	Beef Cattle and Sheep Production	4	
ANFS 418	Swine Production	4	
ANFS 426	Equine Reproductive Management	4	
ANFS 421	Poultry Production	4	

MAJOR REQUIREMENTS CONT.

One of the follo	wing courses:		
ANFS 441	Reproductive Physiology of Domestic Animals	3	
ANFS 442	Lactational Physiology	3	
BISC 306	General Physiology	3	
BISC 300	Microbiology	4	
BISC 276	Human Physiology	4	

A minimum of 6 credits from 300 or above level approved catalogue courses (excluding 366, 399, 464, 466): (6-7 credits				

Second Approved Writing Requirement

A minimum grade of C	C- is required.	(3 credits

Minimum Credit Hours Required for Graduation = 124 Your Total Credit Hours:
Major requirements are approved by your advisor and the
department chair or designee:
Advisor's Signature:
Department Designee

ELECTIVES

See catalog for restrictions.		(30)-31 credit
COURSE	TITLE	CR	GRADE

Comments:

Please attach additional information on course substitutions or waivers if necessary. All changes to Departmental/Major requirements must be approved in writing by the Department Chair. All changes to University/College requirements require approval of the Assistant Dean for Student Services.

♦NOTES:

RE: University Breadth Requirements

Students may not use a course that is cross-listed with a subject area that has already been used to satisfy a university breadth requirement. Students enrolled in a single major may not satisfy the breadth requirement with courses in the subject area of that major (e.g. chemistry majors may not use CHEM courses). Students who are enrolled in more than one major or degree are allowed to meet the University breadth requirement by taking approved breadth courses from within the subject areas of their majors.

RE: College Breadth Requirements

A minimum of nine credits from any three different subject area codes, outside the subject area codes of the student's major, offered by the Departments in the College of Agriculture and Natural Resources. The exceptions would be any course that states in the course description that it cannot be used to satisfy the College breadth requirements, special problems, research, internships, first year experience, seminars, and similar courses.

Other:

It is possible that courses taken to fulfill Major requirements also may be used to fulfill University or College requirements; check your catalog and with your advisor for restrictions. In the case that one course fulfills two requirements, be advised that the credits count only ONCE toward the overall total. For example, using HIST 103 to fulfill both the multicultural course and the History and Cultural Change breadth requirement may be allowed; however, only 3 credits are counted toward the degree total.

Student Signature:	
G	
Signature of the Office of Academic Programs:	

- IIIIIII	& Food Sciences	Graauc	ation Check Sh	eei 124 C	redits required	га	ll 2011
Name:		UI	DID:		Phone:		
Catalog Date	e:	M	inor(s):		Email:		
UNIVER	SITY REQUIREM	ENTS	S	MAJOR F	REQUIREMENTS	S	
Catalog. Excep	ts must be fulfilled as indicated in otions are granted only in extenu e Office of Academic Programs.			A minimum grade of code.	C- is required for all courses with	the AN	FS rubric/sul
			(7 credits)	COURSE	TITLE	C	GRAD
COURSE	TITLE	CR	GRADE	COURSE	IIILE	R	E
ENGL 110	Critical Reading and Writing (minimum C-)	3		MATH 221	Calculus I	3	
A NIEC 1 CE	First Year	1		BISC 207	Intro Biology I	4	
ANFS165	Experience/FYE	1		BISC 208	Intro Biology II	4	
§	Discovery Learning Experience (DLE)	*		CHEM 101/103	General Chemistry I	4	
	Multicultural Course	3		CHEM 102/104	General Chemistry II	4	
	readth Requirements◊ ade of C- is required for all Univ	ersity Bre	(9 credits)	CHEM 213/215	Elementary Organic Chemistry	4	
Creative Art	s and Humanities			CHEM 214/216	Elementary Biochemistry w/lab	4	
		3		ANFS 101	Introduction to Animal Science	3	
History and	Cultural Change			ANFS 102	Food for Thought	3	
	1 . 10 .	3		ANFS 111	Animal and Food Science Laboratory	1	
Social and Bo	ehavioral Sciences			ANFS 140	Functional Anatomy	4	
	N. IG. IT.	3		ANFS 230 or ANFS 332	Foodborne Diseases or Animal Diseases	3	
	, Natural Sciences, and Tecl	nology		ANFS 251	Animal Nutrition	3	
(CHEM 1	01/103 already fulfills this requirement)	*		ANFS 252	Animal Nutrition Laboratory	1	
	E BREADTH REC	HIDE	NAENITC	ANFS 265	Career Development	1	
	and Natural Resources◊			ANFS 300	Principles of Animal and Plant Genetics	3	
	(3 appr	oved are	as, 9 credits)	ANFS 305 or ANFS 315	Food Science or Food Safety	3	
				*Recommended	l for students interested in	ı Food	Science
				§ One of the fol	lowing 4-credit capstone/	DLE c	
Physical Scie	nces						(4 c

(CHEM 102/104)

			(+ C1 Cu
ANFS 404	Dairy Production	4	
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MAJOR REQUIREMENTS CONT.

One of the following 3-credit physiology courses: (3 credits)

ANFS 441	Reproductive Physiology of Domestic Animals	3	
ANFS 442	Lactational Physiology	3	
BISC 306	General Physiology	3	

^{*}Recommended for students interested in Food Science

Second Approved Writing Requirement

A minimum grade of C	C- is required.		(3 credits)

minimum of 6 credits from the following, to include at least two courses: (6-7 credits)

least two courses		0-7 crearis)	
ANFS 409	Food Processing 3		
ANFS 419	Topics in International Animal Agriculture	3-4	
ANFS 424	Non Ruminant Nutrition	3	
ANFS 435	Animal Virology	3	
ANFS 436	Immunology of Domestic Animals	3	
ANFS 439	Food Microbiology	3	
ANFS 441	Reproductive Physiology of Domestic Animals	3	
ANFS 442	Lactational Physiology	3	
ANFS 445	Comparative Physiology of Domestic Animals	3	
ANFS 449	Food Biotechnology	4	
ANFS 454	Ruminant Nutrition	3	
ANFS 366/466	Independent Study	3 (max)	
ANFS 468	Research	3 (max)	
ANFS 470	Principles of Molecular Genetics	3	

Your Total Credit Hours:	
Major requirements are approved by your a department chair or designee:	dvisor and the

Minimum Credit Hours Required for Graduation = 124

Major requirements are approved by your advisor and the department chair or designee:
Advisor's Signature:
Department Designee:
Student Signature:
Signature of the Office of Academic Programs:

ELECTIVES

See catalog for restrictions.		(30	(30-31 credits)	
COURSE	TITLE	CR	GRADE	

Comments:

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Date

Board of Trustee Notification

Revised 10/23/2007 /khs